WHATCOM COUNTY
Planning & Development Services
5280 Northwest Drive
Bellingham, WA 98226-9097
360-778-5900, TTY 800-833-6384
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Mark Personius, AICP
Director

Agricultural Advisory Committee Meeting

LOCATION

Hybrid Meeting: Zoom (details below) and
Northwest Annex Conference Room
Whatcom County Planning and Development Services
5280 Northwest Drive, Bellingham, WA 98226

Date: April 10, 2024

Time: 3:00-5:00 P.M. Pacific Time PM Pacific Time (US and Canada)

Whatcom County PDS is inviting you to a scheduled in person or Zoom meeting.

Join Zoom Meeting
https://us02web.zoom.us/j/85076941496

Meeting ID: 850 7694 1496

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Mark Personius, AICP
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Agricultural Advisory Committee
Meeting Agenda

for

April 10, 2024

3:00-5:00 P.M.

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1. Roll Call & Introductions (5 min)
    - Determination of Quorum
2. Agenda Review & Adjustments (5 min)
3. Open Public Session (5 min)
4. Review & Approval of Previous Meeting Minutes (5 min)
    - March 13, 2024
5. Agriculture and Environmental Regulation – Dakota Stranik (PDS) & Corina Cheever (WCD) (45 min)
    - Critical Areas Ordinance (CAO)
    - Conservation Program on Agricultural Lands (CPAL)
    - Farm Plans & Other Whatcom Conservation District Resources
    - Voluntary Stewardship Program (VSP)
6. Discussion of Topics for Future Presentations (10 min)
7. Review of AAC Goals & Draft Memo to Related Advisory Committees (15 min)
8. Staff & Member Updates (15 min)
    - Update on Proposed Code Amendment to Ag Zone
9. New Business (5 min)
10. Action Items & Next Agenda (5 min)
11. Adjournment

Attachments:

- Draft minutes for AAC Meeting 3/13/24
- Whatcom County Code 16.16.800 for CPAL
- Example Standard Conservation Farm Plan
- Draft Invite for Collaboration with Other Committees

Individuals who require special assistance to participate in the meetings are asked to contact AAC staff at least 96 hours in advance at: dstranik@whatcomcounty.us, 360-778-5911.

Agricultural Advisory Committee
Meeting Summary
March 13, 2024

Start Time:	3:00 p.m.
Location:	Hybrid Meeting – Zoom & at Whatcom County Planning & Development

Meeting Highlights
There were 16 people in attendance (Voting members: 7 of 8, Staff members: 2, Ex-Officio: 4 Members of the public: 3).

Attendees – Members	**Affiliation**	**Present**
Chapman, Alan	Whatcom Conservation District	☒
McDermott, Matthew	Ag Producer	☒
Kubalek, Roger	Ag Producer	☒
Singh, Gurjit	Ag Producer	☐
Harron, Elli	Ag Producer	☒
Welch, Chantel	Ag Programs	☒
Likkel, Fred	Whatcom Family Farmers	☒
Pehl, Clay	Consumer of Ag Products	☒
VACANT	Ag Producer	☐
VACANT	Ag Producer	☐
VACANT	Ag Producer	☐
VACANT	Ag Producer	☐
VACANT	Ag Producer	☐

Quorum Present	**YES ☒ NO ☐**

Attendees – Ex-Official/Contributing	**Affiliation**	**Present**
Corina Cheever	Whatcom Conservation District	☒
Benedict, Chris	WSU Extension	☒
Hall, Alex	NRCS	☒
Hallberg, Brooklyn	FFA Youth	☒

Attendees - Staff	**Present**
Dakota Stranik	☒
Becky Snijder van Wissenkerke	☒
	☐
	☐

Others Present
Robin McPherson (ECY) Sheila Coughlan (ECY) Kim Hallberg

Zoom Recording:
https://us02web.zoom.us/rec/play/yqx16kQC4BYitSbSqbwMe4elGu3I1zn_dsU5c9PEo7hJXBA0Za7G8UmtQhJIhM45BGub6r9iiL98F3g.WfUXMhCwlu_7Iv_M?canPlayFromShare=true&from=share_recordin

g_detail&continueMode=true&componentName=rec-play&originRequestUrl=https%3A%2F%2Fus02web.zoom.us%2Frec%2Fshare%2FtK8qIcDOKvqdNzSGn7SMV_jB7fIWyKJxVbdTf7QegixEONkdUP7X-XA6sGcJfKYQ.kXvFOrQQrbS_kz9R

1- Roll call and introductions - starting at 00:00:00
WCC 2.34.040 establishes that "a quorum shall consist of at least half of the appointed voting members." A quorum was established with 7 of 8 appointed voting members present.

2- Agenda review and adjustments - starting at 00:04:11
Fred motioned to approve the agenda as written, Chantel seconded, agenda was unanimously approved.

3- Open Public Session - starting at 00:06:22
There was no public comment.

4- Review & Approval of Previous Meeting Minutes - starting at 00:06:41
Motion to approve by Fred, seconded by Clay. With no objections, the February minutes were unanimously approved, adding two small changes to add Kim Hallberg's first name under attendees and also to make a small grammatical edit (lead to led).

5- Staff & Member Updates - starting at 00:08:14
With the meeting running ahead of schedule, this item was moved up on the agenda in order to fill time before the Q&A session. The topic of recruiting members for vacant seats was discussed. Potential applicants for the Ag Producer seats were discussed - Roger Hawley, John Maberry, Zach Steensma were identified. For the Ag Processing seats Darigold, Friesla, AmeriCold, American Freeze Dry, VersCold, Bellingham Cold Storage, & Puget Sound Food Hub were discussed.

Elli asked about the proposed berry research center potentially being built in the future at the current Boxx Berry Farms site. Chris Benedict provided some information and clarified that it hasn't moved forward in a number of months and there are some challenges with funding. The purpose is to create a new breeder location for small fruit, mainly raspberry varieties in Whatcom County. Historically the research has not occurred in Whatcom County. Currently it's being done on commercial fields but that is expensive and complicated. Current "machine picking trials" are being managed by Radar farms. Alan suggested that Input from the berry industry on their interest in this project would be helpful.

6- Adjudication Q&A with Robin McPherson (ECY) - starting at 00:16:09
Robin McPherson (ECY adjudication manager) & Sheila Coughlan (ECY adjudication engagement planner) introduced themselves and then questions began.

Q1 by Elli - 00:21:24
One of our goals was for long term water availability for the agricultural sector. How does that fit with adjudication?

A1: ECY determined through an ECY assessment and report to the legislature that adjudication is an important piece of the puzzle for larger solutions. We're hoping that adjudication makes available more certainty for water, for things like water banking, exchange, and trade in the long term for agriculture, and also can bring infrastructure to the area.

Q2 by Elli - 00:22:51
Fred shared a documentary on a farmer in Lynden who was a potato farmer and one of the reasons he went out of business was he was going to be fined $10,000 a day for water use. How does that come about?

A2: The ECY Water Resources program includes Robin's work as well as the Bellingham Field Office which deals with review and enforcement locally. Kasey Cykler is the manager of the northwest regional office. Kelly Hamilton is the point person at the Bellingham Field Office for issues like enforcement, which occurs after extensive notice to a farmer that they are exceeding their legally authorized water use.

Q3 by Elli - 00:24:31
How is seniority in terms of water rights established?

A3: Under State law, water is protected under prior appropriation which means the earlier water users are protected from impairment by newer or later water users. The concept is that someone who has already established in their water use should be protected from somebody new coming in and taking water. Water upstream or in a connected aquifer can impair a senior water user. This comes from the 1917 surface water code & the 1945 groundwater code. On a water right document, the seniority date is usually the permit date written on the certificate.

Q4 by Elli - 00:27:54
We bought our 20 acres 6 years ago and had a well put in. So, when it comes around for us to fill in that water rights form, we are at this point a large garden with about 20 fruit trees, but let's say in 10 years our sons want to do more commercial agriculture, how does that work?

A4: I'm pretty limited in what I can say about specific hypotheticals. In the adjudication water users will need to fill out a claim form that documents their current and past water use. Describe the fruit trees, where and how much water is used. As far as expanding water use after the adjudication, that kind of water use would be considered junior. New water use in a lot of instances is currently legal under the requirements of the permit exemption, but that doesn't mean it's guaranteed forever, and it would be junior and can be interruptible in times of shortage.

Q5 by Roger - 00:30:22
So just to clarify, after adjudication there will still be a well exemption that's allowed, but then it'll be a junior exception compared to people who had wells in 10, 15, 20, 70 years ago?

A5: The goal of adjudication is really to inventory exactly what the legal water right is that goes with each operation or each parcel. Adjudicated rights will result in adjudicated certificates, and new water users won't have adjudicated certificates. Adjudication applies existing law. On its own adjudication is not designed to change the law. Adjudication doesn't change the permit
Exemption for the future, but those uses would be very junior and they would be interruptible to protect senior users. That actually includes stream flow and water for fish. We're hoping that certificating water rights will facilitate water exchanges. Water banking happens elsewhere in the state. It's difficult to do without really understanding the quantity and purpose of each water right.

Q6 by Alan - 00:32:58
Has Ecology identified what they thought would be useful sub-basins to deal with? What brings this to mind is places like Point Roberts and Lummi Island which are not really in the aquifers that we're looking most closely at with respect to capacity. It would seem like those would be in a different discussion group rather than the Sumas aquifer.

A6 - 10 sub-basins have come from WRIA1 planning efforts based on hydrology. WRIA 1 groups are funded to go through some additional hydrology analysis to give more information about water within those sub basins. As far as Point Roberts & Lummi Island, we know they are not hydrologically connected and we wouldn't expect those to be in a discussion of impairment of Nooksack forks for instance, but they are included in adjudication because adjudication is identified as being the entire water resource inventory area.

Q7 by Alan 00:35:33
I'm somewhat familiar with the work that's being done for groundwater modeling and things of that sort, and they seem to be focused on the surficial aquifers which are down in the floodplain area, and not so much with those higher up on the slopes. I'm wondering how that work in the lowlands would be extrapolated?

A7: That's something that's being managed by the different WRIA groups under funding with the county.

Q8 by Fred - 00:36:43
You've talked about water banks, but we also have the challenge of relinquishment. Perhaps you could explain how relinquishment fits into the discussion surrounding adjudication?

A8: Relinquishment is the legal requirement that after 1967 water rights are generally relinquished for more than 5 years of non-use. That's from RCW 90.140. There's a number of exemptions to relinquishment. Water is particularly exempt from relinquishment if it is donated into temporary trust, which is really the best way to deal with current & future relinquishment concerns. As far as adjudication, the law asks water users to list their current water use and their maximum past water use. It's likely that information will be looked at if there were peaks of water use that were a lot greater than current water use, there will be discussions with water users about whether relinquishment exemptions will apply. Ecology will make that recommendation to the

court and then water users could bring their own information to the court for final decision by the Whatcom County Superior Court.

Q9 by Dakota 00:38:05
So, it could be I purchased a property in 2016 and have used the water to its maximum for a permit exempt well since then, but since it wasn't used to the maximum say for 10 years previously by the previous owner, I would then be curtailed?

A9: So, the question is what the priority of that water use would be. So, you know that you've used it since 2016, if you wanted to have that adjudicated at an earlier priority date, you would want to look at the history of the parcel and the water to see if that quantity was used earlier than that to get a more senior priority date.

Q10 by Dakota 00:39:18
And does that only apply to actual water rights or does that also apply to exempt wells that want to use more than 500 gallons per day?

A10: All water claimants in the adjudication are going to need to bring in their claims, their current water use, their historic water use, and their earliest water use. That is what allows Ecology to put them in the inventory with their dates.

Q11 by Dakota 00:40:00
But you would need to contact previous landowners as far back as 1967?

A11: 1967 is the relinquishment date, so if you are claiming earlier than that you will need something that identifies that water use. The conservation district has historic aerial photos, there are land records, county property records, well records, etc. to show that claim priority date. Ecology does have our water right search with historic water rights documents and that really is a great source of historic information.

Q12 by Alan 00:41:13
Are you aware of any Ecology reports that would be able to estimate the current rights that they are aware of in terms of acre feet that have been certificated?

A12: We have our own database with documented water rights. There was a really detailed report for the PUD a few years ago that was done by RH2, and that used some aerial data and other data to estimate the extent of water use going on. (story map of report - one pager)

Q13 by Fred - 00:42:20
As relinquishment comes up, and I know we've had farmers that have had to relinquish a bunch of water as they get into the process, I'm struggling to see where do you see water banking to fit in when relinquishment is a part of it? There doesn't really seem to be much money to put into a bank as water rights are taken away from farmers who are no longer using it and that's a big concern.

A13: We're anticipating that a lot of water rights will be certificated, that has been used continually throughout history with all kinds of priority dates. So that water can be used

for water banking in the future. Some of it will be relinquished, but a great deal of it won't be.

Q14 by Fred - 00:43:21
But if they're using it, how are they going to be able to put it into a bank?

A14: They don't put it in the bank when they're using it, the bank is for when they're not using it, seasonally or intermittently. The more certainty we have in an area, the more movement we see of water through banks for seasons that it's not used.

Fred commented that water banking in this area is a very limited tool and it's been a struggle to figure out how it would work. There is currently no water bank set up in Whatcom County.

Robin commented that lack of certainty of water rights is one reason why it is difficult, and that's how adjudication fits in.

Q15 by Roger - 00:45:41
A permit exempt well that goes through this process, will that become a certificate for that well exemption or does it just remain an exemption?

Q15: What we'll be asking from the court is to move permit exempt uses to adjudicated certificate.

Q16 by Alan - 00:46:30
Maybe you can elaborate further because in your presentation in Ferndale you mentioned there are 3 exempt well uses and a proper juggling of things might end up claiming more than a single 5,000 gal per day use.

A16: The Ferndale video should be up soon. I would call that stacking exemptions. In some cases, an individual might have a home that has a domestic exemption, but also has a farm which would fall under the industrial exemption, and potentially a stock water exemption. The way we're seeing the adjudication now, is that the best way to do that would be to submit different forms for each one, to be clear that those are individual stacked exemptions and to allow the user to submit the best priority and quantity date under each one.

Q17 by Fred - 00:48:45
So, the biggest part of this is bringing in Tribal water rights to the discussion. But most likely, based on what we're seeing, those water rights are going to be based on in stream flows, that are not met a significant portion of the summer. And you could put all of agricultural use back into the Nooksack river and only gain a few days. Which means there are significant times when we're not meeting in stream flows no matter what we do. So, I'm curious what that means for our farms, especially these smaller farms who are junior users. How is adjudication going to work with that over time so they can start to figure out what certainty means?

A17: Lummi Nation & Nooksack Tribe have been working with Natural Resources & the WRIA 1 Management Board for many years. The adjudication is listing them as defendants. They've agreed with this and in fact asked for it, and they'll be represented and assisted by the United States. They also have a federal settlement team convened. This will be the first time that the tribes will be required to bring their own quantified in stream flow rights into any public forum, but particularly into the court, and the court will make a decision on those. There will be opportunity for objection and appeal. These are serious claims, and when we talk about uncertainty it's the uncertainty of a lot of very serious Federal law hanging over us. Aquavella is the Yakima adjudication that did this with the rights of the Yakima Nation, and it did put Yakima Nation in stream flow in certain places at certain quantities with seniority over the stream. What we saw in those situations is that it really elevated interest in settlement. I do know that the Federal Government and the tribes and everybody else is really interested in the settlement of those rights, much more than curtailment that simply shuts off water use. I also know that when you look stream by stream things can look a lot more interesting than imagining it as an actual blanket, and there will be a lot of internal dynamics. I encourage everybody in the forums that you have and relationships that you have to be asking questions of the Tribes, working with them, maintaining those relationships so that these good conversations can happen going forward.

Q18 by Alan - 00:53:30
As I understand it, the Yakima settlement gave on reservation in stream jurisdiction to both reclamation and the Yakima nation, but the Judge said that if anyone wanted to question that off reservation that he would be willing to hear the case. Does that fit your recollection?

A18:
I think that's what went on with Aquavella, but just let me tell you, there are different ways that courts stay involved throughout or after an adjudication. There is the adjudication in Whatcom County, of the Lummi Peninsula groundwater. That is a Lummi on reservation specific aquifer. The federal court out of Seattle actually manages that, month to month through a water master. That's ongoing jurisdiction of the court. There are other adjudications where the court closes the books & their files and does not retain jurisdiction over the ongoing management of the decree. Those are two very different ways it can happen - it can happen with a settlement or a ruling, and the court can be involved to different degrees depending on what the parties want and what the court wants. Yakima has both a decree and then it has a settlement for the administration of the decree going forward.

Q19 by Fred - 00:55:34
It sounds pretty clear that settlement at some point is going to be the best way, maybe the only way out of this. What is Ecology doing to encourage settlement?

A19: We're filing the adjudication. Settlement can't happen without Lummi Nation and Nooksack Tribe, and they've been very clear throughout, especially the past 5 years, that they will not come to the table until the adjudication is filed. We also are attending WRIA 1 meetings as requested, Whatcom County and Executive Sidhu have held meetings and invited us and we're participating wherever we're invited for that. But we really don't have

a statutory role in convening any kind of settlement or solutions table or settlement meetings, and we don't see that as practical until this is filed, and we intend to do that this spring.

Alan acknowledged this agenda item was over time, Robin offered a few closing statements, mentioning a number of recent meetings and presentations to the small farm community, and that her team is looking for the best way to keep reaching people whether via Zoom, Q&A's, in-person, etc. Sheila Coughlan is the best contact for those ideas - scou461@ecy.wa.gov

Q20 by Alan - 00:59:35
Given that the budget was preparing for a 20-year adjudication, do you have any insight into how long into that period it would take before there was some serious discussion of settlement?

A20: The budget is biennial, so we are funded every two years. And there are projections in the budget for how long it will take, but it's not like they give us a lump sum for 20. But we've penciled it out, we're on target and on budget for now. I'm hoping that the filing itself is going to encourage conversation, and that although it starts very slow. I think there will be good conversations in the next few years.

After Robin & Sheila finished, Becky Snijder van Wissenkerke from Whatcom County Public Works shared some information on what Public Works is doing to assist with outreach and technical assistance regarding adjudication. Whatcom County is receiving funding from WA Dept of Ecology for these efforts. They have a website for resources, a survey to get input about what kind of information people need, any webinars or events will be posted there along with recordings. The county is hiring a consultant to develop a water use estimator tool for both household and agricultural water use, and will also be providing information on how to look up information to use on the claims form, evidence, historic imagery, etc. The consultant will also help provide informational meetings, webinars, in person events, and assistance with completing claims forms. Other ideas on how the county can help are welcome.

Some further discussion on water use was had before moving on to the next agenda item.

7- Discussion of Topics for Future Presentations – starting at 1:10:30
A survey of various topics was reviewed. A presentation on CPAL, Farm Plans, & the Voluntary Stewardship Program (VSP) was scheduled for the April meeting, with Dakota Stranik and Corina Cheever as presenters. Alan suggested that Thurston County might be a good comparison. Some discussion was also had around Rural Study Areas as well as the different approaches taken around farmland preservation by British Columbia and also Skagit County. Sarah Stoner, who facilitates the Skagit Farmland Legacy program was identified as a possible future presenter. Alan suggested one of the realtors from the Whatcom Farm Expo could speak to what it's like to purchase farmland in Whatcom County. Fred mentioned a possible future discussion around riparian buffers, habitat, and the intersection with ag once changes to CREP & SCC resources are finalized.

8- Follow-up on AAC Goal Refinement & Comp Plan Update – starting at 01:24:14

The committee reviewed a draft document developed by a subcommittee since the last meeting, clarifying broad AAC goals and sub-goals (broader than the Ag Strategic Plan).

The overarching goal for the AAC was drafted as:

"An economically viable, environmentally responsible agricultural economic sector that provides employment, enhances local food security, and conserves natural resources of air, soil and water"

Roger brought up the question of how "ag lands of long-term commercial significance" intersects with soils defined as prime, or prime when drained, or lesser value soils. Matt clarified that "ag land of long-term commercial significance" directly relates to prime ag soils.

Roger also brought up how there are currently over 100,000 acres enrolled in PDS's Open Space Farm and Agricultural Land program, so it would merit distinguishing how much of that is actively being farmed and is contributing to the 100,000-acre goal of the AAC.

Alan is hoping to use this document as a way to communicate with other advisory committees and clarify overlapping goals to move forward on and build a more compelling case to bring to County Council.

Elli acknowledged that the Rural Land Study was recently included as part of the AAC's comments on the Comp Plan update, and that those parcels have already been identified as high value for agriculture meriting further protection.

Alex Harris contributed that over 28,000 acres were identified in 2017 as high value ag lands at risk of development, and that that some of those acres have since been developed. An update to the Rural Study Areas is currently underway between Whatcom Public Works and PDS staff, and will demonstrate how much of that land has continued to be developed since the 2017 Rural Land Study. This update will also include an analysis of water rights.

Roger mentioned that part of protecting ag lands is encouraging densification of existing urban areas. Chantel mentioned an op-ed her colleague authored on protecting farmland by encouraging urban density, for inspiration.

Ag worker housing was added as a sub-goal.

It was decided that more work was necessary to clarify this document and perhaps simplifying it to remove some of the sub-goals or move them to a different page. The subcommittee (Roger, Alan, & Elli) agreed to reconvene before the next meeting in this effort.

Roger suggested that perhaps this is too simple of a document, and that clarification of "what" & "how" these goals will be accomplished would provide other committees with

clearer actions to support or not. Too simple of a document may not be specific enough to garner support.

9- New business – 01:56:55
No new business

10- Action items and next agenda – 01:57:00
Presentation on VSP, CPAL, & Farm Plans (Dakota & Corina)
Further discussion of goal refinement (work by sub-committee)

11- Dismissal and Next Meeting
The meeting adjourned at 5:03 p.m. The next meeting is scheduled for April 10, 2024 from 3-5 p.m. to be held both in-person and virtually.

Ideas on major goals and sub-goals as a focus of the Ag Advisory Committee. The Sub-Sub Goals are only to further the discussion.

Goal 1 An economically viable, environmentally responsible agricultural economic sector that provides employment, enhances local food security, and conserves natural resources of air, soil and water

- Sub-Goal 1.A Agricultural soils of long term commercial significance are reserved for agricultural operations
  - Sub-Goal 1.A.1 Minimum of 100,000 acres
  - Sub-Goal 1.A.2 Rural Study Area target protection (28,449 acres in 2019)
  - Sub-Goal 1.A.3 Densification of urban areas in order to protect ag land
- Sub-Goal 1.B Water available for agricultural sector that will sustain profitability with most effective water use efficiencies.
  - Sub-Goal 1.B.1 Local management of available water resources
  - Sub-Goal 1.B.2 Viable natural salmonid populations
- Sub-Goal 1.C Institutions and infrastructure that will increase agricultural operations ability to operate viably and responsibly
  - Sub-Goal 1.C.1 Processing facilities
  - Sub-Goal 1.C.2 Local markets
  - Sub-Goal 1.C.3 Farm to market
  - Sub-Goal 1.C.4 Equipment supplies and maintenance
  - Sub-Goal 1.C.5 Technical and financial support
  - Sub-Goal 1.C.6 Training
  - Sub-Goal 1.C.6 Farm worker housing
- Sub-Goal 1.D -Public recognition of the importance of a viable, responsible agricultural economic sector to the entire community.
  - Sub-Goal 1.D.1 Local food
  - Sub-Goal 1.D.2 Employment.
  - Sub-Goal 1.D.3 Open space
  - Sub-Goal 1.D.4 Wildlife habitat

16.16.800 Purpose.

A. The well-being of farms and ranches in Whatcom County depends in part on good quality soil, water, air, and other natural resources. Agricultural operations that incorporate protection of the environment, including critical areas and their buffers as defined by this chapter, are essential to achieving this goal.

B. The purpose of the CPAL program is to allow farmers practicing ongoing agricultural activities that may affect critical areas, their functions and values, and/or their buffers to do so either (1) in accordance with the standard requirements of this chapter or (2) pursuant to a conservation farm plan voluntarily prepared and approved pursuant to this article. If farmers and ranchers are willing to enter into the CPAL program, then flexibility in these provisions may be extended to them. If not, then they must observe the standard provisions of this chapter.

C. This program shall be subject to continued monitoring and adaptive management to ensure that it meets the purpose and intent of this chapter. (Ord. 2017-077 § 1 (Exh. A)).

16.16.810 Resource concerns.

Agricultural operations, including the keeping of horses and other large animals, have the potential to create adverse impacts to critical areas. It is the county's policy to minimize such impacts.

A. Nutrient Pollution of Water. Animal waste contains nutrients (nitrogen and phosphorous). With each rain, these wastes can wash off the land and into the nearest stream, lake, or wetland. In surface water, phosphorous and nitrogen fertilize aquatic plants and weeds. As the plants and weeds proliferate and decay, the dissolved oxygen that fish need to survive is depleted. Nitrogen in the form of nitrate is easily dissolved in and carried with rainfall through our permeable soils to groundwater. Nitrate concentrations exceeding the maximum contaminate level for safe drinking water are found in many wells of Whatcom County. These can present a significant human health risk, particularly to the very old and young.

B. Pathogen Pollution of Water. Manure contains bacteria and other pathogens. These can make the water unfit for drinking without treatment or shellfish unfit for human consumption. They can also make water unsafe for human contact and recreational sports such as fishing, swimming or water skiing. Both surface and groundwater are vulnerable to this type of pollution.

C. Sediment Pollution to Surface Water. Regardless of the amount of supplemental feed provided, large animals will continue grazing until all palatable vegetation is gone. On especially small lots (one or two acres), the animals that are allowed free and continuous access to vegetation quickly graze-out and trample pasture grasses and forbs. These areas are then susceptible to invasion by weeds, including noxious weeds, and brush. The resulting bare ground is subject to erosion from wind and water. Lands that lack adequate vegetation are subject to erosion, and contaminated

runoff from these areas can enter water bodies and wetlands and interfere with fish and wildlife habitat.

D. Degradation of Riparian Areas. The term “riparian” is defined in Article 9 of this chapter and includes the areas adjacent to streams, lakes, marine shorelines and other waters. A healthy riparian area is essential to protecting fish and wildlife, including salmon and shellfish. Dense riparian vegetation along the water’s edge will slow and protect against flood flows; provide infiltration and filtering of pollutants; secure food and cover for fish, birds and wildlife; and keep water cooler in summer. If it occurs, uncontrolled grazing has the potential to remove important riparian vegetation. (Ord. 2017-077 § 1 (Exh. A)).

16.16.820 Classification and applicability.

A. A conservation farm plan identifies the farming or ranching activities and the practice(s) necessary to avoid their potential negative impacts (resource concerns). Practice selection depends upon the types of livestock raised and crops grown. Based upon the type and intensity of the operation, some generalizations can be made as to the resource concerns and remedies that apply.

B. Some operations present relatively low risks to critical areas because of their benign nature, timing, frequency, or location. For these operations, the resource concerns and remedies are relatively easy to identify and implement. These are described in more detail as Type 1 agricultural operations subject to standardized conservation farm plans in WCC 16.16.830 and 16.16.840(A).

C. Where the potential negative impacts to critical areas are moderate or high, solutions are more difficult to formulate and implement. In those circumstances, a more rigorous planning process is required. In such cases, a formal written plan shall provide the desired environmental protection. These types of operations are described as agricultural operations requiring custom conservation farm plans in WCC 16.16.830 and 16.16.840(B) or (C).

D. Agricultural activities that qualify for coverage include:

1. Type 1 Operations.

    a. To qualify as a Type 1 operation, a farm shall not exceed one animal unit per one acre of grazable pasture. These operations present a low potential risk to critical area degradation including ground/surface water contamination because the animals kept generate fewer nutrients than can be used by the crops grown there.

    b. Critical areas on Type 1 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved standard conservation farm plan prepared in accordance with WCC 16.16.830 and 16.16.840(A).

    c. Those operators qualifying for a Type 1 (standard) conservation farm plan may elect to

do a Type 2 (custom) conservation farm plan if they want to use “Prescribed Grazing” (NRCS Practice 528A) to manage vegetative filter strips installed alongside critical areas.

2. Type 2 Operations.

a. Type 2 operations are farms that include, but are not limited to, those that exceed one animal unit per one acre of grazable pasture; farms that have orchards, vineyards, small-fruit field or row crops; and drainage improvement districts. These operations present a potential moderate risk to critical area degradation, including ground or surface water contamination, because the nutrients applied from manure or commercial fertilizers may exceed that which can be easily used by the crops grown there without careful planning and management. The agricultural activities are also likely to be much more intense than Type 1 operations, posing greater potential risks to other critical areas.

b. Critical areas on Type 2 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC 16.16.830 and 16.16.840(B).

3. Type 3 Operations.

a. Type 3 operations include dairies and animal feeding operations/concentrated animal feeding operations (AFO/CAFOs). These operations are already regulated by state and federal governments (see Chapter 90.64 RCW et seq.; 40 CFR 122.23 and 40 CFR Part 412).

b. Critical areas are protected against the potential negative impacts of Type 3 agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC 16.16.830 and 16.16.840(C). (Ord. 2017-077 § 1 (Exh. A)).

16.16.830 Conservation farm plans – General standards.

A. All conservation farm plans shall include all practicable measures, including best management practices, to maintain existing critical area functions and values.

B. A conservation farm plan shall not recommend nor authorize:

1. Filling, draining, grading, or clearing activities within critical areas or buffers:

a. Except on ongoing agricultural land where such activities are a demonstrated essential part of the ongoing agricultural use or part of routine maintenance; and

b. When it does not expand the boundaries of the ongoing agricultural use; and

c. The appropriate permits for doing so have been obtained.

2. The construction of new structures. New structures shall be constructed in compliance with the applicable standard requirements of this chapter and the Whatcom County Code.

3. New or expanded drainage systems. Routine maintenance of existing drainage systems may be allowed, but only in compliance with the Washington State Hydraulic Code (Chapter 220-660 WAC) and the best management practices found in the "Drainage Management Guide for Whatcom County Drainage Improvement Districts."

4. The conversion of land to agricultural use.

C. Other plans prepared for compliance with state or federal regulations (e.g., nutrient management plans), or to obtain an accredited private third-party certification (e.g., GLOBALG.A.P.), or similar plans may be used as part of or in lieu of a conservation farm plan if the technical administrator determines they adequately address the requirements of this title. (Ord. 2017-077 § 1 (Exh. A)).

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 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.

b. Along regulated streams[2], 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."

ii. Where trees and shrubs are absent, a strip or area of herbaceous vegetation shall be established and maintained between barns, corrals, paddocks, and grazing areas pursuant to the USDA Natural Resource Conservation Service's (NRCS) Conservation Practice 393, "Vegetative Filter Strip," and USDA's buffer width design tool for surface runoff found in the publication "Conservation Buffers Design Guidelines for Buffers, Corridors, and Greenways." Livestock shall be excluded from the vegetative filter strips established to protect critical areas pursuant to NRCS Practice 472, "Access Control."

2. Manure Collection, Storage, and Use. Manure and soiled bedding from stalls and paddocks are to be removed and are to be placed in a storage facility protected from rainfall so that runoff does not carry pollutants and bacteria to critical areas. Manure is to be used as cropland fertilizer. The rate and timing of manure application shall not exceed crop requirements or cause surface or groundwater water quality degradation. It is to be applied in a manner to avoid runoff of nutrients and bacteria to critical areas.

3. Pasture Management. Pastures are to be established and managed pursuant to “Prescribed Grazing” (NRCS Practice 528A).

4. Exercise or Barn Lots. These normally bare areas must be stabilized and managed to prevent erosion and sediment movement to critical areas. A diversion terrace shall be installed, where necessary, to hinder flow to and across the lot or paddock. Runoff from the lot must be treated via the vegetative filter strip or riparian buffer as described in subsection (A)(1) of this section to avoid contaminants reaching critical areas.

5. Existing native vegetation within critical areas and their buffers shall be retained.

6. Chemical additions, including fungicides, herbicides, and pesticides, shall not be applied within 50 feet of standing or flowing water except by a licensed applicator.

7. Fertilizers Other Than Manure. The rate and timing of fertilizer application shall not exceed crop requirements, or cause surface or groundwater quality degradation.

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:

1. In developing the elements that an approved conservation farm plan must contain, the technical administrator may authorize the use of the methods, technologies, and best management practices of the Natural Resources Conservation Service. Other standards may be used when such alternatives have been developed by a land grant college or a professional engineer with expertise in the area of farm conservation planning.

2. Implementation of the conservation farm plan must protect existing values and functions of critical areas. Benchmark conditions are to be captured and described in the plan. This may consist of photo documentation, written reports or both.

3. Wetlands 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).

4. Custom conservation farm plans need not address the application, mixing, and/or loading of insecticides, fungicides, rodenticides, and pesticides; provided, that such activities are carried out in accordance with the Washington State Department of Agriculture and all other

applicable regulations including, but not limited to: the provisions of Chapter 90.48 RCW, the Clean Water Act, United States Code (USC) Section 136 et seq. (Federal Insecticide, Fungicide, and Rodenticide Act), Chapter 15.58 RCW (Pesticide Control Act), and Chapter 17.21 RCW (Pesticide Application Act).

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

i. Attending a county-sponsored or approved workshop, and

ii. Conducting a risk assessment of their farm or ranch, alone or with a planning advisor's assistance, and

iii. Developing a plan to prevent and/or mitigate any identified risks, and

iv. Having the plan approved pursuant to WCC 16.16.290.

One resource for guidance is "Tips on Land and Water Management for Small Farm and Livestock Owners in Whatcom County, Washington." It can be obtained from the Whatcom conservation district's website: http://www.whatcomcd.org/small-farm. Other guidance may also be used, provided it is consistent with the best available science criteria in WAC 365-195-900 through 365-195-925.

C. Type 3 (Custom) Conservation Farm Plans. Conservation farm plans meeting the criteria of state and federal laws pertaining to AFO/CAFOs (see Chapter 90.64 RCW et seq., 40 CFR 122.23 and 40 CFR Part 412) fulfill the requirements of this chapter. (See USEPA "Final Guidance – Managing Manure Guidance for Concentrated Animal Feeding Operations (CAFOs)" at: http://epa.gov/guide/cafo/) (Ord. 2017-077 § 1 (Exh. A)).

16.16.850 Preparation and approval of conservation farm plans.

Conservation farm plans shall be subject to county review, approval, monitoring, adaptive management, and enforcement in accordance with the following:

A. The technical administrator shall review and approve all conservation farm plans.

B. Table 4 shows which entities may prepare and/or provide technical assistance and recommendations in preparing which type of conservation farm plan:

Table 4. Who May Prepare Conservation Farm Plans

Who May Prepare	Type 1 Operations	Type 2 and 3 Operations
The farm operator	X	
Whatcom County planning and development services	X	X
A qualified consultant	X	
A watershed improvement district (for a farm or ranch that is within its boundaries)	X	
The Whatcom conservation district	X	X
A planning advisor	X	X

C. The farm operator can seek conservation farm plan approval directly through the department of planning and development services, or grant permission to any of the entities listed in Table 4 to prepare and submit it. If the conservation farm plan is prepared by any entity listed in Table 4 other than the Whatcom conservation district, the department will conduct a site visit prior to plan approval in order to assess critical areas and sufficiency of the plan to protect water quality and critical areas. (Ord. 2017-077 § 1 (Exh. A)).

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 five years, self-certification is allowed for Type 1 conservation farm plans, or if the plan 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.

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, 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.

C. The farm practices described in an approved conservation farm plan will be deemed to be in compliance with this chapter so long as the landowner/farm operator is properly and fully implementing the practices and responding to possible adaptive management requirements according to the timeline in the plan. This will be verified through conservation farm plan implementation monitoring.

D. Agricultural operations shall cease to be in compliance with this article, and a new or revised conservation farm plan will be required, when the technical administrator determines that any of the following has occurred:

1. When a farm or ranch operator fails to properly and fully implement and maintain their conservation farm plan.

2. When implementation of the conservation farm plan fails to protect critical areas. If so, a new or revised conservation farm plan shall be required to protect the values and functions of critical areas at the benchmark condition.

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 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.

4. When the increase in livestock or decrease in land base or nutrient export results in the farm being out of balance between the nutrients generated and to be used by growing crops.

5. When a new or revised conservation farm plan is required, and the farm operator has been so advised in writing and a reasonable amount of time has passed without significant progress

being made to develop said plan. Refusal or inability to provide a new plan within a reasonable period of time shall be sufficient grounds to revoke the approved conservation farm plan and require compliance with the standard provisions of this chapter.

6. When an owner or manager denies the technical administrator reasonable access to the property for technical assistance, monitoring, or compliance purposes, then the technical administrator shall document such refusal of access and notify the owner of his/her findings. The owner shall be given an opportunity to respond in writing to the findings of the technical administrator, propose a prompt alternative access schedule, and to state any other issues that need to be addressed. Refusal or inability to comply with an approved conservation farm plan within a reasonable period of time shall be sufficient grounds to revoke said plan and require compliance with the standard provisions of this chapter.

E. With one exception, Whatcom County will not use conservation farm plans (standard or custom) as an admission by the landowner that s/he 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. The exception is that when matters of major life, health, environment, or safety issues, as determined 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. (Ord. 2017-077 § 1 (Exh. A)).

16.16.870 Limited public disclosure.

A. Conservation farm plans will not be subject to public disclosure unless required by law or a court of competent jurisdiction;

B. Provided, that the county will collect summary information related to the general location of a farming enterprise, the nature of the farming activity, and the specific best management practices to be implemented during the conservation farm plan review process. 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.

C. The county will provide to the public via its website information regarding which farms have approved conservation farm plans and the date of their approval.

D. 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. (Ord. 2017-077 § 1 (Exh. A)).

Article 9. Definitions

16.16.900 Definitions.

"Accessory structure" means a structure that is incidental and subordinate in intensity to a primary

use. Barns, garages, storage sheds, and similar appurtenances are examples.

“Active alluvial fan” means a portion or all of a fan that has experienced channel changes, erosion, or deposition. Active fans can be identified based on determination by field geomorphic and topographic evidence, and by historical accounts.

“Activity” means human activity associated with the use of land or resources.

“Adaptive management” means using scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. Management policy may be adapted based on a periodic review of new information.

“Adequate water supply” means a water supply that meets requirements specified in the Whatcom County drinking water ordinance (Chapter 24.11 WCC).

“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. The construction of new structures or activities that bring a new, non-ongoing agricultural area into agricultural use are not considered agricultural activities.

“Agricultural land” is land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, or animal products, or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, or livestock, and/or lands that have been designated as capable of producing food and fiber, which have not been developed for urban density housing, business, or other uses incompatible with agricultural activity.

“Alluvial fan” means a fan-shaped deposit of sediment and organic debris formed where a stream flows or has flowed out of a mountainous upland onto a level plain or valley floor because of a sudden change in sediment transport capacity (i.e., significant change in slope or confinement).

“Alluvium” is a general term for clay, silt, sand, gravel, or similar other unconsolidated detrital materials, deposited during comparatively recent geologic time by a stream or other body of running water, as a sorted or semi-sorted sediment in the bed of the stream or on its floodplain or delta.

“Alteration” means any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing (vegetation), draining, construction, compaction, excavation, or any other activity that changes the character of the critical area.

“Anadromous fish” means fish species that spend most of their lifecycle in salt water, but return to freshwater to reproduce.

“Animal unit” means 1,000 pounds of livestock live weight.

“Aquifer” means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs (Chapter 173-160 WAC).

“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.

“Bankfull width” means:

1. For streams – The measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. In cases where multiple channels exist, bankfull width is the sum of the individual channel widths along the cross section (see Forest Practices Board Manual, Section 2).

2. For lakes, ponds, and impoundments – Line of mean high water.

3. For tidal water – Line of mean high tide.

4. For periodically inundated areas of associated wetlands – Line of periodic inundation, which will be found by examining the edge of inundation to ascertain where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark up-on the soil a character distinct from that of the abutting upland.

“Base flood” is a flood event having a one percent chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A (zone subject to flooding during a 100-year flood, but less so than V zones) or V (zone subject to the highest flows, wave action, and erosion during a 100-year flood).

“Bedrock” is a general term for rock, typically hard, consolidated geologic material that underlies soil or other unconsolidated, superficial material or is exposed at the surface.

“Best available science” means information from research, inventory, monitoring, surveys, modeling, synthesis, expert opinion, and assessment that is used to designate, protect, or restore critical areas. As defined by WAC 365-195-900 through 365-195-925, best available science is

derived from a process that includes peer-reviewed literature, standard methods, logical conclusions and reasonable inferences, quantitative analysis, and documented references to produce reliable information.

“Best management practices” means conservation practices or systems of practices and management measures that:

1. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment;

2. Minimize adverse impacts to surface water and groundwater flow, circulation patterns, and to the chemical, physical, and biological characteristics of waters, wetlands, and other fish and wildlife habitat;

3. Control plant site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material.

“Buffer (the buffer zone)” means the area adjacent to the outer boundaries of critical areas including wetlands; habitat conservation areas such as streams, lakes, and marine shorelines; and/or landslide hazard areas that separates and protects critical areas from adverse impacts associated with adjacent land uses.

“Channel migration zone (CMZ)” means the area along a river or stream within which the channel can reasonably be expected to migrate over time as a result of normally occurring processes. It encompasses that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion. There are three components of the channel migration zone: (1) the historical migration zone (HMZ) – the collective area the channel occupied in the historical record; (2) the avulsion hazard zone (AHZ) – the area not included in the HMZ that is at risk of avulsion over the timeline of the CMZ; and (3) the erosion hazard area (EHA) – the area not included in the HMZ or the AHZ that is at risk of bank erosion from stream flow or mass wasting over the timeline of the CMZ. The channel migration zone may not include the area behind a lawfully constructed flood protection device. Channel migration zones shall be identified in accordance with guidelines established by the Washington State Department of Ecology.

“Clearing” means destruction of vegetation by manual, mechanical, or chemical methods resulting in exposed soils.

“Commercial fish” means those species of fish that are classified under the Washington State Department of Fish and Wildlife Food Fish Classification as commercial fish (WAC 220-12-010).

“Compensatory mitigation” means a project for the purpose of mitigating, at an equivalent or greater level, unavoidable critical area and buffer impacts that remain after all appropriate and practicable

avoidance and minimization measures have been implemented. Compensatory mitigation includes, but is not limited to: wetland creation, restoration, enhancement, and preservation; stream restoration and relocation; rehabilitation; and buffer enhancement.

“Conservation” means the prudent management of rivers, streams, wetlands, wildlife and other environmental resources in order to preserve and protect them. This includes the careful use of natural resources in order to prevent depletion or harm to the environment.

“Conservation easement” means a legal agreement that the property owner enters into to restrict uses of the land for purposes of natural resources conservation. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property.

“Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally in groundwater, air, or soil or that occurs at concentrations greater than those in the natural levels (Chapter 172-200 WAC).

“County” means Whatcom County, Washington.

“Critical aquifer recharge areas” means areas designated by WAC 365-190-080(2) that are determined to have a critical recharging effect on aquifers (i.e., maintain the quality and quantity of water) used for potable water as defined by WAC 365-190-030(2).

“Critical area tract” means land held in private ownership and retained in an open undeveloped condition (native vegetation is preserved) in perpetuity for the protection of critical areas.

Critical Areas. The following areas shall be regarded as critical areas:

1. Critical aquifer recharge areas;

2. Wetlands;

3. Geologically hazardous areas;

4. Frequently flooded areas;

5. Fish and wildlife habitat conservation areas.

“Critical areas report” means a report prepared by a qualified professional or qualified consultant based on best available science, and the specific methods and standards for technical study required for each applicable critical area. Geotechnical reports and hydrogeological reports are critical area reports specific to geologically hazardous areas and critical aquifer recharge areas, respectively.

“Critical habitat” means habitat areas with which endangered, threatened, sensitive or monitored

plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified herein with reference to lists, categories, and definitions promulgated by the Washington State Department of Fish and Wildlife as identified in WAC 232-12-011 or 232-12-014; in the Priority Habitat and Species (PHS) Program of the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations.

“Critical saltwater habitat” includes all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as Pacific herring, surf smelt and Pacific sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

“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: (1) current circumstances affecting the critical area and relevant natural processes; (2) reasonably foreseeable future development that may affect the critical area; and (3) beneficial effects of any established regulatory programs under other local, state, and federal laws.

“Debris flow” 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.

“Debris torrent” means a violent and rushing mass of water, logs, boulders and other debris.

“Deepwater habitats” means permanently flooded lands lying below the deepwater boundary of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium in which the dominant organisms live. The boundary between wetland and deepwater habitat in the marine and estuarine systems coincides with the elevation of the extreme low water of spring tide; permanently flooded areas are considered deepwater habitats in these systems. The boundary between wetland and deepwater habitat in the riverine and lacustrine systems lies at a depth of two meters (6.6 feet) below low water; however, if emergent vegetation, shrubs, or trees grow beyond this depth at any time, their deepwater edge is the boundary.

“Delineation” means the precise determination of wetland/nonwetland boundaries in the field according to the application of the specific method described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, as amended, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised.

Designated Species, Federal. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S.

Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.

Designated Species, State. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

“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: subdivisions and short subdivisions; binding site plans; planned unit developments; variances; shoreline substantial development permits and exemptions; clearing activity; fill and grade work; activity conditionally allowed; building or construction; revocable encroachment permits; and septic approval.

“Ditch” or “drainage ditch” means an artificially created watercourse constructed to convey surface or groundwater. Ditches are graded (manmade) channels installed to collect and convey water to or from fields and roadways. Ditches may include:

1. Irrigation ditches;
2. Waste ways;
3. Drains;
4. Outfalls;
5. Operational spillways;
6. Channels;
7. Stormwater runoff facilities; or
8. Other wholly artificial watercourses.

“Emergency activities” means those activities which require immediate action within a time too short to allow full compliance with this chapter due to an unanticipated and imminent threat to public health, safety or the environment. Emergency construction does not include development of new permanent protective structures where none previously existed. All emergency construction shall

be consistent with the policies of Chapter 90.58 RCW and this chapter. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

“Emergent wetland” means a wetland with at least 30 percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

“Enhancement” means actions performed within an existing degraded critical area and/or buffer to intentionally increase or augment one or more functions or values of the existing critical area or buffer. Enhancement actions include, but are not limited to, increasing plant diversity and cover, increasing wildlife habitat and structural complexity (snags, woody debris), installing environmentally compatible erosion controls, or removing nonindigenous plant or animal species.

“Erosion” means a process whereby wind, rain, water and other natural agents mobilize, transport, and deposit soil particles.

“Erosion hazard areas” means lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) as having “severe” or “very severe” erosion hazards and areas subject to impacts from lateral erosion related to moving water such as river channel migration and shoreline retreat.

“Estuarine wetland” means the zero-gradient sector of a stream where it flows into a standing body of water together with associated natural wetlands; tidal flows reverse flow in the wetland twice daily, determining its upstream limit. It is characterized by low bank channels (distributaries) branching off the main stream to form a broad, near-level delta; bank; bed and delta materials are silt and clay; banks are stable; vegetation ranges from marsh to forest; and water is usually brackish due to daily mixing and layering of fresh and salt water.

“Exotic” means any species of plants or animals that is not indigenous to the area.

“Farm pond” means an open water depression created from a nonwetland site in connection with agricultural activities.

“Feasible” means an action, such as a development project, mitigation, or preservation requirement that meets all of the following conditions:

1. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

2. The action provides a reasonable likelihood of achieving its intended purpose; and

3. The action does not physically preclude achieving the project’s primary intended legal use.

In cases where this chapter requires certain actions “unless they are infeasible,” the burden of proving infeasibility is on the applicant/ proponent. In determining an action’s infeasibility, the county may weigh the action’s relative costs and public benefits, considered in the short- and long-term time frames.

“Feasible alternative” means an action, such as development, mitigation, or restoration, that meets all of the following conditions: (1) the action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results; (2) the action provides a reasonable likelihood of achieving its intended purpose; and (3) the action does not physically preclude achieving the project’s primary intended legal use. Feasibility shall take into account both short- and long-term monetary and nonmonetary costs and benefits.

“Fen” means a mineral-rich wetland formed in peat that has a neutral to alkaline pH. Fens are wholly or partly covered with water and dominated by grass-like plants, grasses, and sedges.

“Fill material” means any solid or semisolid material, including rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure that, when placed, changes the grade or elevation of the receiving site.

“Filling” means the act of transporting or placing by any manual or mechanical means fill material from, to or on any soil surface, including temporary stockpiling of fill material.

“Fish and wildlife habitat conservation areas” are areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to: rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Counties and cities may also designate locally important habitats and species. “Fish and wildlife habitat conservation areas” does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

“Fish habitat” means a complex of physical, chemical, and biological conditions that provide the life-supporting and reproductive needs of a species or life stage of fish. Although the habitat requirements of a species depend on its age and activity, the basic components of fish habitat in rivers, streams, ponds, lakes, estuaries, marine waters, and nearshore areas include, but are not limited to, the following:

1. Clean water and appropriate temperatures for spawning, rearing, and holding;

2. Adequate water depth and velocity for migrating, spawning, rearing, and holding, including off-channel habitat;

3. Abundance of bank and in-stream structures to provide hiding and resting areas and stabilize stream banks and beds;

4. Appropriate substrates for spawning and embryonic development. For stream- and lake-dwelling fishes, substrates range from sands and gravel to rooted vegetation or submerged rocks and logs. Generally, substrates must be relatively stable and free of silts or fine sand;

5. Presence of riparian vegetation as defined in this article. Riparian vegetation creates a transition zone, which provides shade and food sources of aquatic and terrestrial insects for fish;

6. Unimpeded passage (i.e., due to suitable gradient and lack of barriers) for upstream and downstream migrating juveniles and adults.

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

“Floodplain” means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

“Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one foot. Also known as the “zero rise floodway.”

“Forested wetland” means a wetland with at least 30 percent of the surface area covered by woody vegetation greater than 20 feet in height, excluding monotypic stands of red alder or cottonwood that average eight inches in diameter at breast height or less.

“Frequently flooded areas” means lands in the floodplain subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance and attenuation functions, as determined by the county in accordance with WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the “special flood hazard area” designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

“Function assessment” or “functions and values assessment” means a set of procedures, applied by a qualified consultant, to identify the ecological functions being performed in a wetland or other critical area, usually by determining the presence of certain characteristics, and determining how

well the critical area is performing those functions. Function assessments can be qualitative or quantitative and may consider social values potentially provided by the wetland or other critical area. Function assessment methods must be consistent with best available science.

“Functions” means the processes or attributes provided by areas of the landscape (e.g., wetlands, rivers, streams, and riparian areas) including, but not limited to, habitat diversity and food chain support for fish and wildlife, groundwater recharge and discharge, high primary productivity, low flow stream water contribution, sediment stabilization and erosion control, storm and flood water attenuation and flood peak desynchronization, and water quality enhancement through biofiltration and retention of sediments, nutrients, and toxicants. These beneficial roles are not listed in order of priority.

“Functions, services, and value” means the beneficial functions that critical areas perform, the services they provide humans, and the values people derive from these roles including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, protection from hazards, providing historical and archaeological resources, noise and visual screening, open space, and recreation. These beneficial roles are not listed in order of priority.

“Game fish” means those species of fish that are classified by the Washington State Department of Wildlife as game fish (WAC 232-12-019).

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

“Gradient” means a degree of inclination, or a rate of ascent or descent, of an inclined part of the earth’s surface with respect to the horizontal; the steepness of a slope. It is expressed as a ratio (vertical to horizontal), a fraction (such as meters/kilometers or feet/miles), a percentage (of horizontal distance), or an angle (in degrees).

“Grading” means any excavating or filling of the earth’s surface or combination thereof.

“Grazable acres” means both pasture and hay land as described in the Whatcom County Standard Farm Conservation Planning Workbook.

“Groundwater” means all water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands or flows, percolates or other-wise moves (Chapter 90.44 RCW).

“Groundwater management area” means a specific geographic area or subarea designated pursuant

to Chapter 173-100 WAC for which a groundwater management program is required.

“Groundwater management program” means a comprehensive program designed to protect groundwater quality, to assure groundwater quantity, and to provide for efficient management of water resources while recognizing existing groundwater rights and meeting future needs consistent with local and state objectives, policies and authorities within a designated groundwater management area or subarea and developed pursuant to Chapter 173-100 WAC.

“Growing season” means the portion of the year when soil temperatures are above biologic zero (41 degrees Fahrenheit).

“Growth Management Act” means Chapters 36.70A and 36.70B RCW, as amended.

“Habitats of local importance” designated as fish and wildlife habitat conservation areas include those areas found to be locally important by Whatcom County pursuant to WCC 16.16.710(C)(12).

“Hazard tree” (outside the shoreline jurisdiction) means a tree whose risk evaluation, as determined through a Whatcom County approved tree risk assessment method, is high. Risk evaluation is the combined measurement of: tree failure identification, probability of failure, potential damage to permanent physical improvements to property or causing personal injury, and consequences. A tree that constitutes an airport hazard is considered a hazard tree. A hazard tree whose failure is imminent and consequences of damage to permanent physical improvements to property or causing personal injury are significant is considered an emergency. “Imminent” in this instance means failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. Imminent may be determined by a qualified consultant (defined in this section) or when mutually agreed upon by a landowner and Whatcom County.

“Hazard tree” (within the shoreline jurisdiction) means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors, and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

“Hazardous substance” means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC 173-303-090 or 173-303-100.

“High intensity land use” means land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than one unit/acre), high-intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), hobby farms, and Class IV special forest practices, including the building of logging roads (note that pursuant to WCC 16.16.230(A), all other forest practices are exempt from this chapter).

“Hydraulic project approval (HPA)” means a permit issued by the State Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter 75.20 RCW.

“Hydric soil” means a soil that is or has been saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the NRCS “Field Indicators of Hydric Soils” Version 7, and/or the Corps of Engineers Wetlands Delineation Manual, as amended.

“Hydrologic soil groups” means soils grouped according to their runoff-producing characteristics under similar storm and cover conditions. Properties that influence runoff potential are depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a low permeable layer. Hydrologic soil groups are normally used in equations that estimate runoff from rainfall, but can be used to estimate a rate of water transmission in soil. There are four hydrologic soil groups:

1. Low runoff potential and a high rate of infiltration potential;

2. Moderate infiltration potential and a moderate rate of runoff potential;

3. Slow infiltration potential and a moderate to high rate of runoff potential; and

4. High runoff potential and very slow infiltration and water transmission rates.

“Hydrophytic vegetation” means macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

“Hyporheic zone” means the saturated zone located beneath and adjacent to streams that contain some proportion of surface water from the surface channel. The hyporheic zone serves as a filter for nutrients, as a site for macroinvertebrate production important in fish nutrition and provides other functions related to maintaining water quality.

“Impervious surface” means a hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow compared to natural conditions prior to development. Common impervious surfaces may include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater. Impervious surfaces do not include surface created through proven low impact development techniques.

“In-kind compensation” means to replace critical areas with substitute areas whose characteristics and functions mirror those destroyed or degraded by a regulated activity.

“Infiltration” means the downward entry of water into the immediate surface of soil.

“Intertidal zone” means the substratum from extreme low water of spring tides to the upper limit of spray or influence from ocean-derived salts. It includes areas that are sometimes submerged and sometimes exposed to air, mud and sand flats, rocky shores, salt marshes, and some terrestrial areas where salt influences are present.

“Invasive species” means a species that is: (1) nonnative (or alien) to Whatcom County, and (2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes). Human actions are the primary means of invasive species introductions.

“Lahar” means a mudflow and debris flow originating from the slopes of a volcano.

“Lahar hazard area” means areas that have been or potentially could be inundated by lahars or other types of debris flows, according to a map showing volcano hazards from Mount Baker, Washington.

“Lake” means a naturally or artificially created body of deep (generally greater than 6.6 feet) open water that persists throughout the year. A lake is larger than a pond, greater than one acre in size, equal to or greater than 6.6 feet in depth, and has less than 30 percent aerial coverage by trees, shrubs, or persistent emergent vegetation. A lake is bounded by the ordinary high water mark or the extension of the elevation of the lake’s ordinary high water mark with the stream where the stream enters the lake.

“Landfill” means a disposal facility or part of a facility at which solid waste is permanently placed in or on land including facilities that use solid waste as a component of fill.

“Landslide” means a general term covering a wide variety of mass movement landforms and processes involving the downslope transport, under gravitational influence of soil and rock material en masse; included are debris flows, debris avalanches, earthflows, mudflows, slumps, mudslides, rock slides, and rock falls.

“Landslide hazard areas” means areas that, due to a combination of site conditions like slope inclination and relative soil permeability, are susceptible to mass wasting.

“Low intensity land use” means land use that includes the following uses or activities: forestry (cutting of trees only), low intensity open space (such as passive recreation and natural resources preservation), and unpaved trails.

“Maintenance or repair” means those usual activities required to prevent a decline, lapse or cessation from a lawfully established condition or to restore the character, scope, size, and design of a serviceable area, structure, or land use to a state comparable to its previously authorized and undamaged condition. This does not include any activities that change the character, scope, or size

of the original structure, facility, utility or improved area beyond the original design.

“Major development” means any project for which a major project permit is required pursuant to Chapter 20.88 WCC. For the purposes of this chapter, “major development” shall also mean any project associated with an existing development for which a major development permit has been required or other existing legally nonconforming development for which a major development permit would otherwise be required if developed under the current land use regulations outlined in WCC Title 20.

“Mass wasting” means downslope movement of soil and rock material by gravity. This includes soil creep, erosion, and various types of landslides, not including bed load associated with natural stream sediment transport dynamics.

“Mature forested wetland” means a wetland with an overstory dominated by mature trees having a wetland indicator status of facultative (FAC), facultative-wet (FACW), or obligate (OBL). Mature trees are considered to be at least 21 inches in diameter at breast height.

“Maximum credible event” means the largest debris flow event that can be hypothesized from geologic processes within a watershed above an alluvial fan with consideration of the volume of sediment and debris that would be available within the drainage combined with material from landslides that would enter the drainage, and the volume of water that could become trapped behind and within the debris flow or dammed within the drainage.

“May” means the action is allowable, provided it conforms to the provisions of this title.

“Mean annual flow” means the average flow of a river or stream (measured in cubic feet per second) from measurements taken throughout the year. If available, flow data for the previous 10 years should be used in determining mean annual flow.

“Mitigation” means individual actions that may include a combination of the following measures, listed in order of preference:

1. Avoiding an impact altogether by not taking a certain action or parts of actions;

2. Minimizing impacts by limiting the degree or magnitude of an action and its implementation;

3. Rectifying impacts by repairing, rehabilitating, or restoring the affected environment;

4. Reducing or eliminating an impact over time by preservation and maintenance operations during the life of the action;

5. Compensating for an impact by replacing or providing substitute resources or environments; and

6. Monitoring the mitigation and taking remedial action when necessary.

“Mitigation bank” means a site where wetlands or similar habitats are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

“Mitigation bank instrument” means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The “bank instrument” describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

“Mitigation bank review team” or “MBRT” means an interagency group of federal, state, tribal and local regulatory and resource agency representatives that are invited to participate in negotiations with the bank sponsor on the terms and conditions of the bank instrument.

“Mitigation bank review team process” or “MBRT process” means a process in which the county and other agencies strive to reach consensus with the MBRT members on the terms, conditions, and procedural elements of the bank instrument.

“Mitigation bank sponsor” means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

“Mitigation plan” means a detailed plan indicating actions necessary to mitigate adverse impacts to critical areas.

“Moderate intensity land use” means land use that includes the following uses or activities: residential (one unit/gross acre or less), moderate-intensity open space (parks), moderate-intensity new agriculture (orchards and hay fields), and paved trails.

“Monitoring” means evaluating the impacts of development proposals over time on the biological, hydrological, pedological, and geological elements of ecosystem functions and processes, and/or assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features compared to baseline or pre-project conditions and/or reference sites.

“Native vegetation” means plant species that are indigenous to Whatcom County and the local area.

“Nearshore habitat” means the zone that extends seaward from the marine shoreline to a water depth of approximately 20 meters (66 feet). Nearshore habitat is rich biologically, providing important habitat for a diversity of plant and animal species.

“No net loss” means the maintenance of the aggregate total of the county’s critical area functions and values as achieved through a case-by-case review of development proposals. Each project shall be evaluated based on its ability to meet the no net loss goal.

“Off-site mitigation” means to replace critical areas away from the site on which a critical area has been adversely impacted by a regulated activity.

“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.

“Ordinary high water mark” means the mark or line on all lakes, rivers, streams, and tidal water that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland in respect to vegetation (RCW 90.58.030(2)(b)).

“Person” means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, state agency or local governmental unit, however designated, or Indian nation or tribe.

“Planned unit development (PUD)” means one or a group of specified uses, such as residential, resort, commercial or industrial, to be planned and constructed as a unit. Zoning or subdivision regulations with respect to lot size, building bulk, etc., may be varied to allow design innovations and special features in exchange for additional and/or superior site amenities or community benefits.

“Planning advisor” means those qualified individuals who have technical experience and training necessary to prepare conservation farm plans for agricultural lands and who have been certified a technical service provider by the USDA Natural Resources Conservation Service (see http://techreg.usda.gov) and signed the practice and confidentiality agreement.

“Pond” means an open body of water, generally equal to or greater than 6.6 feet deep, that persists throughout the year and occurs in a depression of land or expanded part of a stream and has less than 30 percent aerial coverage by trees, shrubs, or persistent emergent vegetation. Ponds are generally smaller than lakes. Farm ponds, ponds built for the primary purpose of combating fires, stormwater facilities, and beaver ponds less than two years old are excluded from this definition.

“Potable” means water that is suitable for drinking by the public (Chapter 246-290 WAC).

“Preservation” means actions taken to ensure the permanent protection of existing, ecologically important critical areas and/or buffers that the county has deemed worthy of long-term protection.

“Primary association” means the use or potential use of a habitat area by a listed or priority species for breeding/spawning, rearing young, resting, roosting, feeding, foraging, and/or migrating on a frequent and/or regular basis during the appropriate season(s) as well as habitats that are used less frequently/regularly but which provide for essential life cycle functions such as breeding/nesting/spawning.

“Priority habitat” means a habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes: comparatively high fish or wildlife density; comparatively high fish or wildlife species diversity; fish spawning habitat; important wildlife habitat; important fish or wildlife seasonal range; important fish or wildlife movement corridor; rearing and foraging habitat; important marine mammal haulout; refuge; limited availability; high vulnerability to habitat alteration; unique or dependent species; or shellfish bed. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows). A priority habitat may also be described by a successional stage (such as old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife (WAC 173-26-020(24)).

“Priority species” means wildlife species of concern due to their population status and their sensitivity to habitat alteration, as defined by the Washington State Department of Fish and Wildlife.

“Project” means any proposed or existing activity regulated by Whatcom County.

“Project permit” or “project permit application” means any land use or environmental permit or approval required by Whatcom County, including, but not limited to, building permits, subdivisions, binding site plans, planned unit developments, conditional uses, shoreline substantial development permits, variances, lot consolidation relief, site plan review, permits or approvals authorized by a comprehensive plan or subarea plan.

“Qualified professional” or “qualified consultant” means a person with experience and training with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, soil science, engineering, environmental studies, fisheries, geology, geomorphology or a related field, and related work experience, and meet the following criteria:

1. Is listed on a roster of qualified professionals or qualified consultants prepared by the PDS Natural Resource Supervisor.

2. A qualified professional for wetlands must have a degree in wildlife biology, ecology, soil science, botany, or a closely related field and a minimum of five years of professional experience in wetland delineation and assessment associated with wetland ecology in the Pacific Northwest or comparable systems. The following is required to be submitted to be placed on the roster:

a. Curriculum vitae or resume;

b. Three complete and approved wetland delineations (as primary author on at least one), conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual, 1987, or as amended; and

c. One complete and approved wetland delineation using the U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, 2010, or as amended. Successful completion of a wetland class using this manual may be substituted for this requirement.

3. A qualified professional for habitat conservation areas must have a degree in wildlife biology, ecology, fisheries, or a closely related field and a minimum of three years of professional experience related to the subject species/habitat type or approved equivalent work experience.

4. A qualified professional for geologically hazardous areas must be a professional engineering geologist or geotechnical engineer, licensed in the state of Washington.

5. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydrogeologist, geologist, or engineer.

6. A qualified professional for tree risk assessment means a certified arborist or certified tree professional with a current ISA Tree Risk Assessment Qualification.

7. Anyone who has had their professional licensure or certification revoked for violations of the provisions of their profession does not meet the definition of a qualified professional or qualified consultant.

“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.

“Reasonable use exception” means an exception to the standards of this title that allows for any one of the uses allowed within a given zoning designation which cannot otherwise conform to the

requirements set forth in this title, including the variance criteria; that have the least impact on the critical areas found on the subject property.

“Recharge” means the process involved in the absorption and addition of water from the unsaturated zone to groundwater.

“Reestablishment” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former critical area. Reestablishment results in rebuilding a former critical area and results in a gain in acres and functions. Activities could include removing fill, plugging ditches, or breaking drain tiles.

“Rehabilitation” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded critical area. Rehabilitation results in a gain in function but does not result in a gain in area. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.

“Resident fish” means a fish species that completes all stages of its life cycle within freshwater and frequently within a local area.

“Restoration” means measures taken to restore an altered or damaged natural feature, including:

1. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and

2. Actions performed to reestablish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, or catastrophic events.

“Rills” means steep-sided channels resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery. Rill erosion tends to occur on slopes, particularly steep slopes with poor vegetative cover.

“Riparian corridor” or “riparian zone” means the area adjacent to a water body (stream, lake or marine water) that contains vegetation that influences the aquatic ecosystem, nearshore area and/or fish and wildlife habitat by providing shade, fine or large woody material, nutrients, organic debris, sediment filtration, and terrestrial insects (prey production). Riparian areas include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (i.e., zone of influence). Riparian zones provide important wildlife habitat. They provide sites for foraging, breeding and nesting; cover to escape predators or weather; and corridors that connect different parts of a watershed for dispersal and migration.

“Riparian vegetation” means vegetation that tolerates and/or requires moist conditions and periodic free-flowing water, thus creating a transitional zone between aquatic and terrestrial habitats which

provides cover, shade and food sources for aquatic and terrestrial insects for fish species. Riparian vegetation and their root systems stabilize stream banks, attenuate high water flows, provide wildlife habitat and travel corridors, and provide a source of limbs and other woody debris to terrestrial and aquatic ecosystems, which, in turn, stabilize stream beds.

“Scrub-shrub wetland” means a wetland with at least 30 percent of its surface area covered by woody vegetation less than 20 feet in height as the uppermost strata.

“Seiche” is a standing wave in an enclosed or partially enclosed body of water. Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors. Seiches and seiche-related phenomena have been observed on lakes, reservoirs, swimming pools, bays, harbors and seas. The key requirement for formation of a seiche is that the body of water be at least partially bounded, allowing the formation of the standing wave.

“Seismic hazard areas” means areas that are subject to severe risk of damage as a result of earth-quake-induced ground shaking, slope failure, settlement, or soil liquefaction.

“SEPA” is a commonly used acronym for the State Environmental Policy Act.

“Shellfish” means invertebrates of the phyla Arthropoda (class Crustacea), Mollusca (class Pelecypoda) and Echinodermata.

“Shellfish habitat conservation areas” means all public and private tidelands suitable for shellfish, as identified by the Washington State Department of Health classification of commercial growing areas, and those recreational harvest areas as identified by the Washington State Department of Ecology are designated as shellfish habitat conservation areas pursuant to WAC 365-190-80. Any area that is or has been designated as a shellfish protection district created under Chapter 90.72 RCW is also a shellfish habitat conservation area.

“Shellfish protection district” means the Drayton Harbor shellfish protection district (DHSPD) and the Portage Bay shellfish protection district (PBSPD) (Chapter 16.20 WCC), or other area formed by the county based on RCW Title 90, in response to State Department of Health (DOH) closures or downgrades of a commercial shellfish growing area due to a degradation of water quality as a result of pollution. These areas include the watershed draining to the shellfish beds as part of the shellfish habitat conservation area.

“Shorelands” or “shoreland areas” means those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river

deltas associated with the streams, lakes and tidal waters which are subject to the provisions of Chapter 90.58 RCW.

“Shoreline” (Shoreline Management Act) means all of the water areas of the state, including reservoirs and their associated wetlands, together with lands underlying them, except:

1. Shorelines on segments of streams upstream from a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and

2. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shorelines” means all of the water areas of the state as defined in RCW 90.58.030, including reservoirs and their associated shorelands, together with the lands underlying them, except:

1. Shorelines of statewide significance;

2. Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second (cfs) or less and the wetlands associated with such upstream segments; and

3. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shorelines of statewide significance” means those areas defined in RCW 90.58.030(2)(e).

“Shorelines of the state” means the total of all “shorelines,” as defined in RCW 90.58.030(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW 90.58.030(2)(e).

“Single-family development” means the development of a single-family residence permanently installed and served with utilities on a lot of record.

“Site” means any parcel or combination of contiguous parcels, or right-of-way or combination of contiguous rights-of-way, under the applicant’s/proponent’s ownership or control that is the subject of a development proposal or change in use.

“Slope” means:

1. Gradient.

2. The inclined surface of any part of the earth’s surface, delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

“Soil” means all unconsolidated materials above bedrock described in the Soil Conservation

Service Classification System or by the Unified Soils Classification System.

“Species of local importance” are those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.

“Sphagnum bog” means a type of wetland dominated by mosses that form peat. Sphagnum bogs are very acidic, nutrient-poor systems, fed by precipitation rather than surface inflow, with specially adapted plant communities.

“Stormwater Manual” or “Stormwater Management Manual for Western Washington” means the version of the Department of Ecology’s Stormwater Management Manual for Western Washington most recently adopted by council.

“Streams” means those areas where surface water flows are sufficient to produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. This definition is not meant to include ditches or other artificial water courses unless they are used to convey streams naturally occurring prior to human alteration, and/or the waterway is used by anadromous or other fish populations, or flows directly into shellfish habitat conservation areas.

“Structure” means a permanent or temporary building or edifice of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner whether installed on, above, or below the surface of the ground or water, except for vessels.

“Survey” means one of the following:

1. Mapping using a compass and tape; or

2. Mapping using a smart phone or hand held GPS; or

3. A survey completed by a licensed surveyor.

“Swale” means a shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

“Technical administrator” means the director of the planning and development services department or staff member designated by the director to perform the review functions required in this chapter.

“Toe” means the lowest part of a slope or cliff; the downslope end of an alluvial fan, landslide, etc.

“Top” means the top of a slope; or in this chapter it may be used as the highest point of contact above a landslide hazard area.

“Unavoidable” means adverse impacts that remain after all appropriate avoidance and minimization

measures have been implemented.

“Utilities” means all lines and facilities used to distribute, collect, transmit, or control electrical power, natural gas, petroleum products, information (telecommunications), water, and sewage.

“Volcanic hazard areas” means geologically hazardous areas that are subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.

“Waters of the state” or “state waters” means all salt and freshwaters waterward of the ordinary high water line and within the territorial boundary of the state.

“Watershed” means a geographic region within which water drains into a particular river, stream or body of water. There are approximately 122 watersheds (e.g., Bertrand, Ten Mile, Dakota, Canyon Creek, Lake Whatcom, Lake Samish) identified in WRIA 1 and 3. These are nested within approximately 14 sub-basins (e.g., North Fork Nooksack, Drayton Harbor, Sumas River, Friday Creek), which are nested within four basins (e.g., Nooksack River, Fraser River, Samish River, coastal).

“Watershed improvement district” means a special district established pursuant to Chapter 85.38 RCW citation.

“Wellhead protection area” means the area (surface and subsurface) managed to protect ground-water-based public water supplies.

“Wet meadow” means palustrine emergent wetlands, typically having disturbed soils, vegetation, or hydrology.

“Wet season” means the period generally between November 1st and March 30th of most years when soils are wet and prone to instability. The specific beginning and end of the wet season can vary from year to year depending on weather conditions.

“Wetland” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, retention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands include those artificial wetlands intentionally created to mitigate wetland impacts.

“Wetland buffer” means a designated area contiguous or adjacent to a wetland that is required for the continued maintenance, function, and ecological stability of the wetland.

“Wetland class” means the general appearance of the wetland based on the dominant vegetative life form or the physiography and composition of the substrate. The uppermost layer of vegetation that possesses an aerial coverage of 30 percent or greater of the wetland constitutes a wetland class. Multiple classes can exist in a single wetland. Types of wetland classes include forest, scrub/shrub, emergent, and open water.

“Wetland delineation” means the precise determination of wetland boundaries in the field according to the application of specific methodology as described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised, and the mapping thereof.

“Wetland edge” means the boundary of a wetland as delineated based on the definitions contained in this chapter.

Wetland Enhancement. See “mitigation.”

“Wetland mitigation bank” means a site where wetlands and buffers are restored, created, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

Wetland Restoration. See “mitigation” and “reestablishment.”

“Windthrow” means a natural process by which trees are uprooted or sustain severe trunk damage by the wind.

“Wood waste” means solid waste consisting of wood pieces or particles generated as a byproduct or waste from the manufacturing of wood products, handling and storage of raw materials and trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

Table 5. Table of Acronyms Used in This Chapter

Acronyms	
AASHTO	American Association of State Highway and Transportation Officials
AFO	Animal feeding operation
AHZ	Avulsion hazard zone

CAFO	Concentrated animal feeding operations
CFR	Code of Federal Regulations
CMZ	Channel migration zone
CPAL	Conservation program on agriculture lands
DHSPD	Drayton Harbor shellfish protection district
DOH	Washington State Department of Health
EHA	Erosion hazard area
ESU	Ecologically significant unit
FAC	Facultative
FACW	Facultative – Wet
FIMA	Federal Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Maps
FCO	Federal species of concern
FE	Federal endangered
FT	Federal threatened
HGM	Hydrogeomorphic
HMP	Habitat management plan
HMZ	Historical migration zone
HPA	Hydraulic project approval
IBC	International Building Code
LWD	Large woody debris
MBRT	Mitigation bank review team
MTBE	Methyl tertiary butyl ether
MRL	Mineral resource lands

NGPE	Native growth protection easement
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
OBL	Obligate
OSS	On-site sewage disposal system
PBSPD	Portage Bay shellfish protection district
PCE	Perchloroethylene
PHS	Priority habitat and species
PUD	Planned unit development
RCT	Recreational, commercial or tribal importance
RCW	Revised Code of Washington
SC	State candidate
SE	State endangered
SEPA	State Environmental Policy Act
SM	State monitor
SMA	Shoreline Management Act
SMP	Shoreline Management Program
SS	State sensitive
ST	State threatened
TMDL	Total maximum daily load
U	Unstable
UOS	Unstable old slides
URS	Unstable recent slides

USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VA	Vulnerable aggregations
WAC	Washington Administrative Code
WCC	Whatcom County Code
WDFW	Washington State Department of Fish and Wildlife
WRIA	Water resource inventory area

(Ord. 2019-013 § 1 (Exh. A); Ord. 2017-077 § 1 (Exh. A); Ord. 2009-013 § 2 (Exh. 2); Ord. 2005-068 § 1. Formerly 16.16.800).

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[1] From Wetlands in Washington, Volume 2, Appendix 8C, Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System, Table 8C-11.

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

STANDARD CONSERVATION FARM PLAN CHECKLIST
SUBMITTAL FORM

Ongoing agriculture activities are permitted within critical areas, and/or their buffers upon implementation of an approved conservation farm plan in accordance with WCC 16.16 Article 8. The goal of this plan is to protect critical areas from the potential impacts of livestock where the animal density is less than or equal to one animal unit per acre. (AU/Ac).

Name of Farm: Hippogriff Farm
Land Owner: Rubeus Hagrid
Physical Address: 3 Hogwarts Ct
APN#: 380000000000
City/Zip Code: Bellingham, WA 98226
Mailing Address: same
City/State/Zip Code: same
Phone: (555) 555-5555 Email: hagrid@hogwarts.org

Person Responsible: Rubeus Hagrid Title: owner

Total Farm Acreage: 5 Animal Units per Acre (AU/Ac): 0.63

I understand that this application does not grant authorization to begin work and does not imply approval of the submitted Farm Plan. Furthermore, no work will begin until a permit/authorization is issued. The information contained in the Worksheets, Site Map and Submittal Form is true and accurate to the best of my knowledge.

Signature: Rubeus Hagrid Date: 8-31-18

For agency use:

This plan was developed in cooperation with ☐ Consultant _____ ☐ Conservation District

Signature: _____ Date: _____

This plan was approved by the PDS Staff:

Signature: _____ Date: _____

WHATCOM COUNTY STANDARD CONSERVATION FARM PLAN

PLANNING WORKBOOK: Checklist and Action Plan

For use with the publication:

Tips on Land and Water Management

For: Hippogriff Farm; Rubeus Hagrid
Land Owner
same
Operator

3 Hogwarts Ct, Bellingham, WA 98226
Address
August 31, 2018
Date

Introduction

Conservation planning means different things to different people. Yet at its heart it is providing guidance to landowners to foster a healthy relationship between the environment and people. Our challenge is to help the hundreds of Whatcom County landowners protect certain areas of their community's critical areas, such as Critical Aquifer Recharge Areas, Wetlands, Frequently Flooded Areas, and Habitat Conservation Areas (e.g. streams, ponds and lakes). This conservation planning guidance empowers the individual by giving them the opportunity to understand the potential impacts of their agricultural activities and adopt best management practices that will harmonize their farm with the environment. We thank you for your anticipated responsible stewardship.

Overview of Standard Conservation Farm Plan Process

Ongoing agriculture activities are permitted within critical areas, and/or their buffers upon design and implementation of an approved Conservation Farm Plan in accordance with the Whatcom County Critical Areas Ordinance (CAO). The goal of the Standard Conservation Farm Planning (SCFP) process is to protect certain critical areas and their associated buffers from the potential impacts of farming related activities through a simplified planning process.

Regulated critical areas include:

1) Geologically Hazardous Areas
2) Frequently Flooded Areas
3) Critical Aquifer Recharge Areas
4) Wetlands
5) Habitat Conservation Areas (including streams, rivers, ponds and lakes).

The scope of this guidance document is to address the protection of critical areas that contain open water, have saturated soils and/or areas that provide recharge to shallow aquifers. Aquifer recharge areas, streams, ditches, lakes, ponds and wetlands are the relevant regulated critical areas for CPAL. The following regulations are in place for these critical areas. Flexibility from these standards may be afforded through the farm plan process. Standard buffers for regulated critical areas are:

Wetlands: 25 – 300 ft depending on function, value and use.
Non-fish bearing streams: 50 ft.
Fish-bearing streams: 100 ft.
Shoreline Streams: 150 ft.
Lakes: 100 ft.
Ponds: 50 ft.
Marine Shorelines: 150 ft.

Requirements for Standard Conservation Farm Plans (SCFP) are described in the CAO at WCC 16.16 Article 8. The plan includes basic information about the agricultural activities on the farm, a map of the property, a standard checklist designed to protect critical areas and water quality, and an action plan describing Best Management Practices (BMPs) to be implemented to protect critical areas. Completing this workbook will create a conservation farm plan that meets the requirements of the CAO. Under State and Federal law, you must also protect against untreated water leaving your property, if it has been polluted by your agricultural activities.

STEP 1: DETERMINATION OF ELIGIBILITY FOR STANDARD CONSERVATION FARM PLAN

If you have livestock on property in Whatcom County, Step 1 will help you determine if this workbook is the proper pathway to ensure that your farm meets the requirements of Whatcom County's CAO (WCC 16.16).

1. Determine if your ongoing agricultural activities are within the boundary of a critical area. Maps identifying the general location and distribution of critical areas are available from Whatcom County PDS (360) 778-5900. These maps provide a general idea of if and where critical areas exist on your property. A site inspection by the Technical Administrator may be required to verify the actual presence and location of critical areas on your property. **Standard buffer widths will need to be determined by the technical administrator.** Contact PDS to assist in determining if critical areas occur on your property. You can view the maps online at: http://www.whatcomcounty.us/811/County-Wide-Critical-Area-Ordinance-Maps.

   ☐ WCPDS has determined that there are no critical areas or their buffers on my farm and no water polluted by my agricultural activities is discharged to surface or groundwater. **Stop here, you do not need a conservation farm plan.**

2. Determine whether you may use Conservation Program on Agricultural Lands (CPAL). Only "ongoing agricultural" activities may make use of CPAL. Ongoing agricultural activities are typically associated with the production of crops and livestock. They do not include those activities that bring an area into agricultural use or are developed for use other than agriculture. Lands that have lain idle for over five years are not eligible. However, land enrolled in a Federal or State conservation program is considered ongoing agriculture.

   ☒ Agricultural activities presently occur and have occurred on my farm during the past five years. Continue on with this planning process.

3. Determine if you are a Type 1 Agricultural Operation.
   1) Liquid manure application:
   Utilizing liquid manure as a fertilizer is an agricultural activity that presents greater challenges to management and planning because pollution to surface or groundwater can easily occur. If you are applying liquid manure, the SCFP is not adequate to bring your operation into compliance with the County's CAO. The Custom Conservation Farm Planning process is the proper path for CAO compliance if you want to use liquid manure as fertilizer.

   ☒ I do not capture, hold and apply liquid manure as a fertilizer on my farm. Continue on with the SCFP planning process.

   2) Number of animal units per acre:
   Low impact operations cannot average more than one animal unit per one grazable acre (AU/Ac). Grazable acres include both pasture and hayland. The following worksheet will help you in determining your AU/Ac.

Question 1: How many Animal Units do I have on my farm?

TABLE 1 – AU Calculation

Livestock	A AU Factor		B Number of Animals		C Total AU
Dairy – Holstein cow	1.3	X		=	
Dairy – Heifer, bred	1	X		=	
Dairy – Heifer, prebred	.4	X		=	
Beef (cow & calf)	1.2	X		=	
Beef - Feeder	.7	X		=	
Horse - (mature 1,200 lbs.)	1.2	X	1	=	1.2
Horse - other: AU factor = lb. body weight /1000		X		=	
Swine - Sow	.5	X		=	
Swine - Grower	.2	X		=	
Sheep (ewe & lamb)	.2	X		=	
Goat	.2		3		0.6
Llama	.3	X		=	
Duck	.015	X		=	
Layer	.01	X	10	=	0.1
Fryer	.007	X		=	
Total Animal Units (AU) for Farm:					1.9

NOTE: One acre equals 43,560 square feet.

TABLE 2 - Converting square feet to Acres

217,800 sq feet	÷	43,560 sq feet per acre	=	5 Acres

Question 2: How many grazable acres do I have on my farm?

TABLE 3 – Grazable Acres Calculation

Total Property Acres	5.0	Categories
minus	0.1	**Buildings**
minus	0.1	Roads
minus		Other impervious surfaces
minus		Wetlands
minus		Streams & ditches
minus	0.1	Cropland (where no manure applied)
minus	1.7	Woodlands
Total Grazable Acres(Ac):	3.0	

Question 3: How many Animal Units per Grazable Acre (AU/Ac) do I have?

TABLE 4 – AU/Ac Calculation

Total Animal Units *(Table 1)*	÷	**Grazable Acres** (*Table 2*)	=	**Animal Units per Grazable Acre**
1.9	÷	**2.7**	=	0.63

STEP 2: CONSERVATION FARM PLAN MAP

A map is an important tool to help you develop an effective conservation farm plan. It starts with inventorying what you have and recording that information. It's your chance to get an overall picture of what is happening on your property and how land uses may affect critical areas on or near your property. You will use this map and knowledge of your farm to work through a series of questions that will help you evaluate your operation, identify potential risks to critical areas, and determine which BMPs are appropriate to ensure that critical areas are protected against the potential impacts of your ongoing agricultural activities.

Inventory What You Have

Be sure to identify an approximate scale (map distance to distance on ground, e.g. one inch to 100 feet) and a north arrow. Figure out what the length of your stride is and pace off some distances. Consult online county assessor property maps or property purchase documents to help you determine lot dimensions. In your sketch, note approximate locations of:

- Property boundaries
- Buildings
- Wells (human, stock, and irrigation)
- Septic system and drain field
- Fences and confinement areas
- Filter strips
- Drains
- Bare ground
- Lawn, pasture, or crop land
- Woodlands
- Neighboring land uses
- Flat or sloped ground
- Roads
- Critical areas and associated buffers

Note that critical areas on neighboring parcels and their associated buffers may extend onto your property. These areas should be shown on your map as well. Please contact the WCPDS technical administrator for more information on the occurrence and distribution of critical areas on your property. By locating the components listed above, you will have a base map upon which to record locations of BMPs that you will determine are necessary, based on your Farm Review Worksheets (Step 3).

STEP 3: FARM REVIEW WORKSHEETS

Now that you have developed a base map of your farm in Step 2, you can use the map and knowledge of your farm to work through a series of questions that will help you evaluate your operation, identify potential risks to critical areas, and determine which BMPs are appropriate to ensure that critical areas are protected from the potential impacts of your agricultural activities.

Questions in the Worksheets are grouped into eight topic areas. The page numbers at the beginning of each topic area refers to the page numbers in the *Tips on Livestock Management for Whatcom County Farms*, available through Whatcom County Planning and Development Services and the Whatcom Conservation District, where more information can be found. You should record an answer to all questions with a yes, no or n/a (not applicable). Check "yes" only if all areas on your farm meet the question; check "no" if all areas do not meet the question; check "n/a" if the question does not apply to your farm. **Farm Review Worksheets are only considered complete when you have answered all of the questions with either a "Yes", "No", or "N/A" response.**

STEP 4: ACTION PLAN

Once you have answered the questions, fill out the Action Plan form at the end of the questions for all questions for which you answered “no”. Indicate, in the space provided, what BMP you plan to implement and the date by which it will be implemented. Refer to the timeframe indicated for each question. Submission of the worksheets, action plan, site map and submittal form constitutes a complete Farm Plan application which will then be reviewed for approval by the WCPDS Technical Administrator.

CHECKLIST

SYSTEM SITING AND MANAGEMENT

Tips Guide Page 3

FARM BUILDINGS

1) Are all existing barns and impervious surfaces sited to prevent manure, pathogens, sediment and other contaminants from entering all rivers, streams, ditches, ponds, lakes and associated wetlands?
   Yes ☒ No ☐ Not Applicable ☐
   If No, practice(s) to correct on-going pollution discharges should be installed immediately and structural practice(s) should be installed prior to fall rains but no later than October 1st.
2) Is roof runoff managed so that it does not result in ponding and/or channeling **in confinement areas**, and/or contribute to the discharge of nutrients, sediment, pathogens and other contaminants to streams and ditches?
   Yes ☐ No ☒ Not Applicable ☐
   If No, practice(s) to correct this problem should be installed prior to the next wet season but no later than October 1st.

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LIVESTOCK CONFINEMENT AREAS

3) Is surface runoff from outside of livestock confinement areas (areas such as fields, hillsides, driveways and roads) managed so that it does not result in ponding and/or channeling and/or contribute to the discharge of nutrients, sediment, pathogens and other contaminants to streams and ditches?
   Yes ☐ No ☒ Not Applicable ☐
   If No, practice(s) to correct this problem should be installed prior to the next wet season but no later than October 1st.
4) Is there an approved BMP **or** a permanent strip of grass that is at least the width of the livestock confinement area, but not less than 50 feet established between the livestock confinement area and all rivers, streams, ditches, ponds, lakes and associated wetlands?
   Yes ☒ No ☐ Not Applicable ☐
   If no, practices(s) to correct this problem should begin immediately by excluding livestock from the area where the filter strip will be established. The filter strip should be planted, if necessary, as soon as growing conditions are appropriate. All practices should be installed prior to the next wet season and no later than October 1st.
5) Are all catch basins, drains, tiles, pipes and other conveyances of surface and ground water that outlet to streams and ditches installed in a manner that prevents the entry of manure, pathogens, sediment and other contaminants?
   Yes ☐ No ☐ Not Applicable ☒
   If no, practice to correct this problem should be installed immediately.
6) Is the entire livestock confinement area managed to prevent manure, pathogens, sediment and other contaminants from entering any stream or ditch?
   Yes ☐ No ☒ Not Applicable ☐
   If no, practice to correct this problem should be installed immediately.

MANURE COLLECTION, STORAGE & USE

Tips Guide Pages 5-6

MANURE STORAGE

7) Is manure storage capacity sufficient to store manure and other wastes until they can be safely spread as fertilizer?

   Yes ☒ No ☐ Not Applicable ☐

   If No, practice(s) to correct this problem should be installed prior to the next wet season but no later than October 1st.

8) Is manure stored at least 100 feet from all wells, rivers, streams, ditches, ponds, lakes and associated wetlands?

   Yes ☒ No ☐ Not Applicable ☐

   If No, practice(s) to correct this problem should be installed prior to the next wet season but no later than October 1st.

9) Are outdoor manure piles completely covered from Oct 1st to April 1st?

   Yes ☒ No ☐ Not Applicable ☐

   If No, practice(s) to correct this problem should be installed immediately.

10) Is manure handled and stored in a way that prevents nutrients, pathogens, sediment and other contaminants from entering streams and ditches?

    Yes ☒ No ☐ Not Applicable ☐

    If No, practice(s) to correct this problem should be installed immediately.

FIELD APPLICATION OF SOLID MANURE

11) Is manure applied in a manner and is application timed to prevent pollution of streams and ditches and/or groundwater? Are the following practices observed?

    - No applications when soils are saturated.
    - No applications that exceed crop nutrient requirements.
    - No applications when fields are frozen and/or snow covered.
    - No applications October 1st – March 15th on fields subject to flooding.
    - No applications within 100 feet of streams and ditches Sept 1st through March 15th.
    - No applications within 25 feet of streams and ditches March 15h through Sept 1st, and then only if a buffer strip is present.

    Yes ☒ No ☐ Not Applicable ☐

    If No, practice(s) to correct this problem should be installed immediately.

12) Is manure applied in a manner and is application timed to prevent pollution of streams and ditches and/or groundwater?

    Yes ☒ No ☐ Not Applicable ☐

    If No, practice(s) to correct this problem should be installed immediately.

PASTURE MANAGEMENT

Tips Guide Pages 7-8

SEASONAL FEEDING AREAS

13) Is all feeding (whether placed on the ground or in feed bunks, hay rings etc.) done at least 100 feet from rivers, streams, ditches, ponds, lakes and associated wetlands?

Yes ☒ No ☐ Not Applicable ☐

If No, practice(s) to correct this problem should be installed immediately.

14) Are 100 foot wide buffer strips established and maintained between seasonal feeding areas (include calving areas) and streams and ditches from Oct 1st - March 30th?

Yes ☒ No ☐ Not Applicable ☐

If No, practice(s) to correct this problem should begin immediately by excluding livestock from the area where the filter strip will be established. The filter strip should be planted, if necessary, as soon as growing conditions are appropriate (questions 23-25 describe minimum requirements for plant growth and management in filter strips), and should be established no later than the next wet season or October 1st.

15) Is manure in seasonal feeding areas distributed over the site such that no area receives more manure nutrients than the fertilizer needs of the next year's crop?

Yes ☒ No ☐ Not Applicable ☐

If No, practice(s) to correct this problem should be installed immediately.

PASTURE AND HAYLAND AREAS

16) Are livestock managed in a way that prevents trampling of river, stream, pond and lake banks and bottoms and associated wetlands?

Yes ☐ No ☒ Not Applicable ☐

If No, practice(s) to correct this problem should be installed immediately.

17) Are 50 foot wide buffer strips established and maintained along all streams and ditches crossing through and/or adjacent to pastures and haylands?

Yes ☐ No ☒ Not Applicable ☐

If No, practice(s) to correct this problem should begin immediately by excluding livestock from the area where the filter strip will be established. The filter strip should be planted, if necessary, as soon as growing conditions are appropriate (questions 18-20 describe minimum requirements for plant growth and management in filter strips), and should be established no later than the next wet season or October 1st.

18) Is the minimum forage height within the 50 foot wide buffer strip at least 3 inches in height from October 1st through March 15th?

Yes ☐ No ☒ Not Applicable ☐

If No, practice(s) to correct this problem should begin immediately by excluding livestock from the area where the filter strip will be established. The filter strip should be planted, if necessary, as soon as growing conditions are appropriate (questions 18-20 describe minimum requirements for plant growth and management in filter strips), and should be established no later than the next wet season or October 1st.

19) Are pastures managed so that after most forage has been grazed, they have time to grow to a height of 4 to 6 inches before they are grazed/harvested again?

Yes ☐ No ☒ Not Applicable ☐

If No, practice(s) to correct this problem should be applied over the next 2 years.

20) Are pastures and haylands mostly covered (at least 75%) with suitable forages for grazing livestock? Yes

Yes ☒ No ☐ Not Applicable ☐

If No, practice(s) to correct this problem should be applied over the next 2 years.

21) Does your property contain grass-lined swales and depressions that lack a defined channel or bed, but that also carry seasonal runoff water to interconnecting ditches and streams? If yes, are livestock only pastured in the swales and depressions from the point in the spring when water no longer runs through them until September 30th?

Yes ☐ No ☒ Not Applicable ☐

If No, practice(s) to correct this problem should be applied immediately.

22) In pastures, are all gates, access roads and lanes, watering facilities, supplemental feeding and other heavy use areas located to prevent nutrients, pathogens, sediment and other contaminants from entering streams and ditches?

Yes ☐ No ☐ Not Applicable ☒

If No, practice(s) to correct this problem should be applied immediately.

RIPARIAN & WETLAND AREAS

Tips Guide Page 9

RIPARIAN AREA MANAGEMENT

23) Are livestock excluded from rivers, streams, ditches, ponds and lakes (except as provided in next question)?
Yes ☒ No ☐ Not Applicable ☐
If No, practice(s) to correct this problem should be applied immediately.

24) Are instream crossings for livestock and machinery constructed and managed to prevent and control sediment and manure discharge to the watercourse?
Yes ☐ No ☐ Not Applicable ☒
If No, practice(s) to correct this problem should be applied immediately.

25) Is existing native woody vegetation growing within critical area buffers of streams and ditches protected from damage caused by livestock or human related activity?
Yes ☐ No ☐ Not Applicable ☒
If No, practice(s) to correct this problem should be applied immediately.

26) Are the banks of watercourse free from damage that results in exposed soil or bank slumping resulting from recreational use, farm equipment, or hoof action of livestock?
Yes ☐ No ☐ Not Applicable ☒
If No, practice(s) to correct this problem should be applied immediately.

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WETLANDS MANAGEMENT

27) Are livestock excluded from wetlands that **directly connect** to rivers, streams, ditches, ponds and lakes, and are nutrients, pathogens, sediment and other contaminants prevented from entering them? (Note: This requirement may be relaxed if an approved SCFP is developed and implemented as described in WCC16.16 Article 8)
Yes ☐ No ☒ Not Applicable ☐
If No, practice(s) to correct this problem should be applied immediately.

28) Are livestock excluded from wetlands that are **isolated** from rivers, streams, ditches, ponds and lakes, and are nutrients, pathogens, sediment and other contaminants prevented from entering them? (Note: This requirement may be relaxed if an approved SCFP is developed and implemented as described in WCC16.16 Article 8)
Yes ☐ No ☐ Not Applicable ☒
If No, practice(s) to correct this problem should be applied immediately.

29) Are the functions of wetlands maintained by not filling, draining, grading or clearing them and by not introducing nutrients, pathogens, sediment and other contaminants?
Yes ☐ No ☒ Not Applicable ☐
If No, practice(s) to correct this problem should be applied immediately.

ACTION PLAN

FOR THOSE QUESTIONS WITH A **"NO",** INDICATE
ON THE LINES BELOW WHICH QUESTION IS
BEING ADDRESSED AND HOW YOU ARE ADDRESSING IT.

Name:		**Address:**	

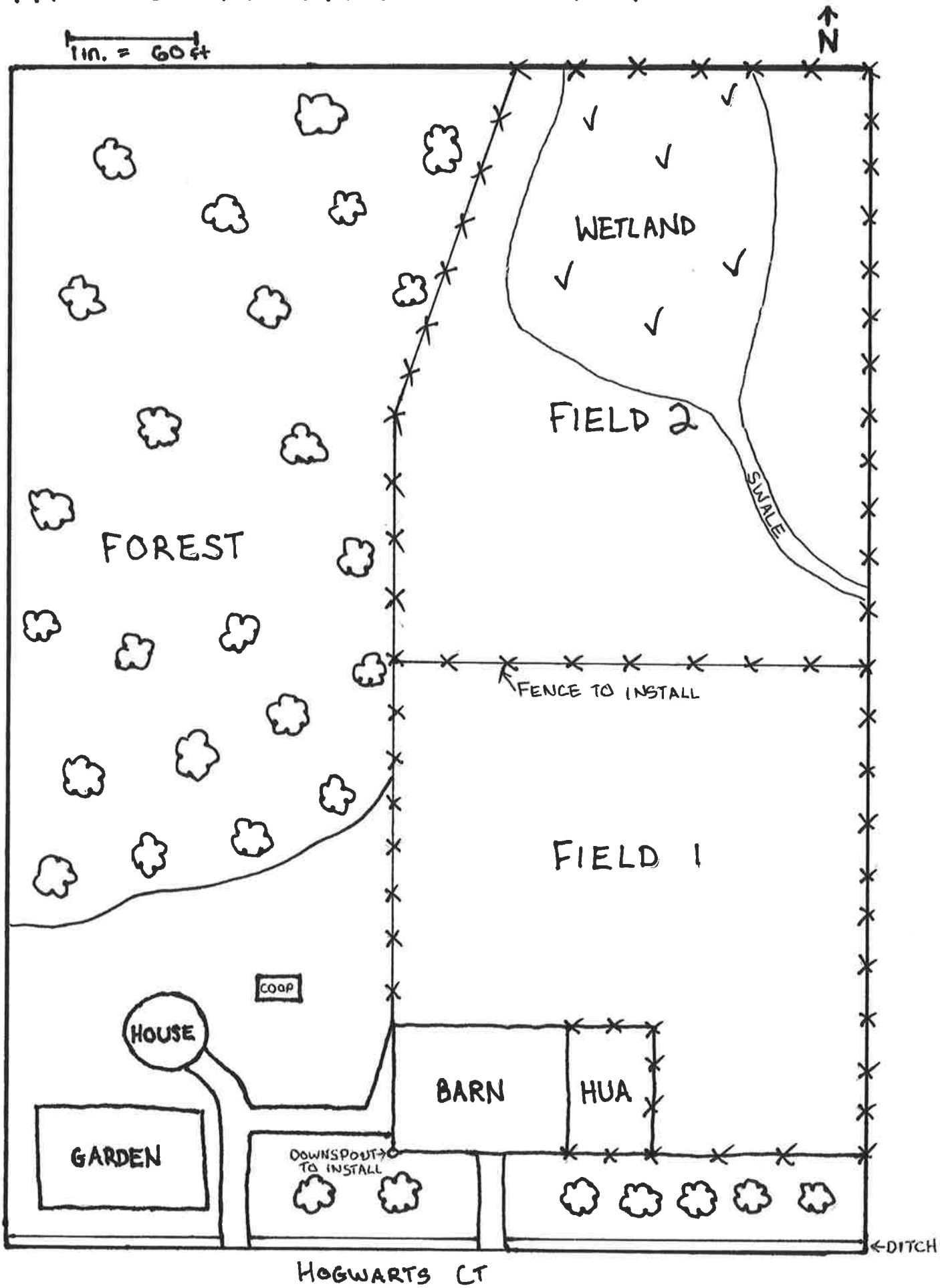
QUESTION # and explanation of problem to be addressed	**PROPOSED PRACTICE TO ADDRESS PROBLEM**	**Due Date for Implementation of Practice**
#2 & 6 Roof runoff from barn ponds in Heavy Use Area and flows to swale	Install gutters and downspout on barn to direct roof runoff away from Heavy Use Area.	October 1
#3, 16, 17, 21, 27, & 29 Livestock have access to wetland and swale year round.	Install fence 50 ft back from wetland and swale to create two pastures, Field 1 being the upland and Field 2 being the wetland. Exclude livestock from Field 2 when saturated, from October through March each year.	October 1
#18 & 19 Livestock graze vegetation below 3 inches in some areas.	Use rotational grazing between Fields 1 & 2 and do not graze vegetation below 3 inches. Utilize Heavy Use Area during winter months.	October 1

CURRENT MANAGEMENT ACTIONS

FOR THOSE QUESTIONS WITH A **"YES",** INDICATE
ON THE LINES BELOW WHICH QUESTION IS
BEING ADDRESSED AND HOW YOU ARE ADDRESSING IT.

QUESTION # and explanation of problem to be addressed	CURRENT PRACTICE
#1 Siting of impervious surfaces	Barn and impervious surfaces are located in upland.
#7-12 Manure storage and application	Manure is collected during winter months, when livestock are kept in barn and Heavy Use Area. Manure is kept in covered storage north of the barn and later applied to garden.
#13-15 Seasonal feeding area	Seasonal feeding area is located in barn/Heavy Use Area, which is in upland, 100 ft from wetland and swale.

HIPPOGRIFF FARM PLAN MAP



The Whatcom County Agriculture Advisory Committee (AAC) invites you to join a subcommittee of the AAC to discuss our suggested 2025 Comprehensive Plan update goals and explore how they might intersection with your committee's suggested update goals. As stewards of agriculture and related sectors within our communities, we understand the importance of holistic planning that considers the broader social, economic and environmental landscape. By convening together, we can identify shared priorities, leverage synergies, and develop comprehensive plan priority areas that reflect the interconnected needs of our region. Let us come together to shape a future that is inclusive, sustainable, and prosperous for all. Common goals will have more of an impact than separate committee goals on the final 2025 Growth Management Plan

Attached to this invitation are the comments forwarded to Planning and Development Services by the AAC, that can serve as a starting point for discussions. Our initial suggestion is to have sub-committees of all interested parties meet between official committee meetings to ensure that full committees participate and develop supportive ideas as they emerge, but we are open to your suggestions on how to move forward.

Please reach out to the Chair of the AAC for further discussion and collaboration opportunities. We value your input and are eager to work together to ensure the comprehensive plan meets the needs of our communities.