

Adam Zack

From: Adam Zack
Sent: Monday, October 28, 2019 9:26 AM
To: 'Francine Shaw'
Cc: rockman@rockisland.com; 'Frank Penwell'; 'michelle Carson'
Subject: RE: Comments Regarding Land Capacity Analysis

Hi Francine,

I'm glad you're digging into the Land Capacity Analysis.

The September draft of the report does not have a section that discusses the implications of the capacity results. That discussion will be included in part with the next draft of the report. The next draft should be available later this week, we plan to brief the Planning Commission in November.

Existing development on parcels was considered using a bevy of different data points. The thresholds, assumptions and criteria for determining which parcels are fully developed, partially used, or vacant are provided in Table 1 on page 8 the Land Capacity Analysis Methodology. The Methodology is included as Attachment A of the September 6, 2019 Land Capacity Analysis Report.

The issues raised regarding the Corner Store and Community Treasures are not considered specifically in the Land Capacity Analysis, which is a general analysis of how much land may be available for development in the future. A discussion of land use designations will be included in the overall update to the Comprehensive Plan Land Use Element further downstream in the Comp. Plan update process. These issues are not considered in the Land Capacity Analysis but will be considered during the update, we have the submitted materials on file to be considered during the process for both properties.

Examining designated natural resource lands (Ag. Resource, Forest Resource, and mineral overlay) is part of the scope of work for the Comprehensive Plan Update. Specifically looking at the designation criteria for these lands, and whether or not the designation is appropriate is not part of the Land Capacity Analysis. Those issues will be considered during the update Land Use Element. So far, the only work done on designated resource lands is an economic analysis released in 2018. This report doesn't draw any conclusions but will help the Planning Commission and County Council understand many of the issues surrounding designated natural resource lands. You can see the current draft of the report here: <https://www.sanjuanco.com/DocumentCenter/View/14554/Economic-Analysis-of-Resource-Lands->

Let me know if you need any other information about the Land Capacity Analysis.

Thanks,

Adam Zack

Planner III

Department of Community Development

San Juan County, WA

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From: Francine Shaw <fshaw@rockisland.com>
Sent: Thursday, October 24, 2019 1:51 PM
To: Adam Zack <adamz@sanjuanco.com>
Cc: rockman@rockisland.com; 'Frank Penwell' <frank.pat.penwell@gmail.com>; 'michelle Carson' <michelle_mem@hotmail.com>
Subject: Comments Regarding Land Capacity Analysis

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Hi Adam:

I read the Land Capacity Analysis and it is very complicated and difficult to understand. Have you determined how much land will be needed to meet the 20 year growth calcs in each land use designation? For instance, what I am looking for is something that says we have this much land available for residential development/commercial development/industrial development, etc. and we need this much more (or we don't need anymore). There needs to be something that is simple to understand. I've been in land use planning my entire career and can't make heads or tails out of the report.

I also noticed the Land Capacity Analysis was based on existing land use designations and building permit activity and did not factor in parcels that may be fully developed but do not have structures on them (i.e., contractor's storage yards).

I represent the owners of the Corner Store on Cattle Point Road and Community Treasures on Roche Harbor Road. Both of these parcels are recognized as fully developed properties but are not currently zoned to reflect the historic commercial use of the properties. They have been inappropriately zoned since the first comprehensive plan was established in 1979. Forty years later these parcels are still being used for commercial uses. Commercial use of these properties is not going to go away and, therefore, they should be given a zoning designation that matches the existing use as they both provide vital commercial services to the San Juan Island community. They should not have to conform to the non-conforming use regulations if they want to redevelop, expand, etc..

Also, I didn't see anything regarding land capacity analysis for Ag Resource, Forest Resource or Mineral Resources lands. I submitted a request for re-designation of the McCutcheon property at the intersection of Roche Harbor and Rouleau Roads from Ag Resource to RGU through the Comp Plan update process because that is the only way resource lands can be re-designated (TPN 361931001). They must be evaluated county-wide and not a parcel-by-parcel basis. I submitted an ag report (attached again) that says this county has too much ag resource lands. How is the county going to address Resource Lands?

Thanks for consideration of these comments.

From: Adam Zack [<mailto:adamz@sanjuanco.com>]
Sent: Monday, October 21, 2019 3:04 PM
To: 'Francine Shaw'
Subject: RE: Land Capacity Analysis

Hi Francine,

An area shown without a fill color is considered 'fully developed'. The color of the outline in the gross developable lands inventory (GDLI) layer indicates whether it is fully developed residential (green), fully developed commercial/industrial (red) or fully developed for public use (purple). The relevant information for a given parcel comes up when you click on the parcel.

If you're still having trouble with the Land Capacity Analysis web map you can send me the parcel numbers and I can give you some more particular information.

Let me know if you need any further help.

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From: Francine Shaw <fshaw@rockisland.com>
Sent: Monday, October 21, 2019 10:07 AM
To: Adam Zack <adamz@sanjuanco.com>
Subject: Land Capacity Analysis

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Hi Adam:

I was trying to track the 3 parcels that I am watching during the Comp Plan update process for re-designation of their properties. I looked at the existing land capacity map and am having difficulty understanding it. What are the parcels designated that are shown in the undesignated aerial? I also can't seem to tract parcels along Roche Harbor Road, specifically the MEM property at the corner of Roche Harbor Road and Rouleau Road. What is the designation of that parcel? It may be easier to talk about this on the phone.

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Mapping Agricultural Land in San Juan County, Washington



Crow Valley, Orcas

A study prepared by the Agricultural Resources Committee of San Juan County

For the San Juan County Council

Funded by the Office of Farmland Preservation

July 2009

This report is written to fulfill requirements of a grant from the Washington State Office of Farmland Preservation to the Agricultural Resources Committee of San Juan County.

Summary

During the first six months of 2009, the Agricultural Resources Committee of San Juan County (ARC) finished a mapping project begun in 2008, funded by a grant from the Washington State Office of Farmland Preservation (OFP). The project looked for patterns of farmland loss by mapping all agriculturally viable parcels within the county. Aerial photos, Geographical Information Systems (GIS), and windshield surveys were the main tools used to achieve these goals. Three primary factors account for most farmland loss: 1) when larger parcels are subdivided into smaller parcels, they often fall out of agricultural use, turn fallow, become populated with shrubs and eventually return to forest; 2) forest gradually encroaches upon larger parcels; and 3) Urban Growth Areas can intrude into farmland.

Background

In January 2008, the Washington State Office of Farmland Preservation awarded a grant for public education and outreach on farmland preservation to the ARC of San Juan County. The goals of that grant included preliminary work to map farmland within the county. In the fall of 2008, a second grant was awarded to the ARC to finish the mapping project and to determine local areas of concern for farmland preservation. The goals included mapping agricultural areas down to two acres, which is considered the smallest viable farming unit for this area. San Juan County encompasses only 111,941 acres, which made the goal attainable. Also helpful was the county's recent acquisition of aerial photographs covering all the major islands.

Methods

The San Juan County Public Works GIS Team donated aerial photos, GIS software, and mapping data. The data covered parcels, shorelines, land use zoning, roads, and the latest online soil survey from the Natural Resources Conservation Service (NRCS) (online at www.websoilsurvey.nrcs.usda.gov). The GIS software used was ArcGIS 9.3 from ESRI. Aerial photos were taken in June of 2008 at a resolution of six inches per pixel. At this resolution it is possible to pick out individual fence posts.

The first task was to define agricultural soils. In San Juan County's Uniform Development Code, the definition of agricultural soils (Chapter 18.20.010) was written using a soil survey from 1963 and is out of date. The criteria for soils classification are more closely defined in the latest soil survey, and some criteria have changed.

As an alternative, a system entitled “Farmland Classification” in the new soil survey rates soils by their physical and chemical characteristics related to the production of crops. This is the classification system recommended for the new Farm and Agricultural Conservation section in the county’s Open Space public benefit rating system. Another possible system is that chosen by Pierce County in their agricultural mapping project, which rated soils by the amount of hay harvested per acre. Neither of these systems is completely satisfactory for this study, since each leaves out soil types that are currently farmed in San Juan County. This project included all of the 55 soil types present in San Juan County, that were productive with common farming practices, which limited the number to 29 soil types. Once the soil types were defined, GIS was used to combine the different soil types into an agricultural soil group. Parcels were considered if they contained at least one acre of agricultural soil and encompassed at least two acres of land, to allow housing. The resulting map included 4,675 parcels out of a total of 16,958 parcels in the county. Next, aerial photos for each of these parcels were visually examined, and the major land uses and active agricultural areas for each parcel were noted. The aerial photo segment consumed most of the time spent on the project. Maps were generated and land use patterns became apparent on both visual and statistical levels.

Several decisions made during the course of the project influenced the results. First, the decision to include all soil types that are currently farmed may have led to including more parcels of forested land with pockets of agricultural soils. This would lead to a higher total parcel area, and a higher percentage of forested land. As an example, Moran State Park was included (a 4,900 acre parcel) in the project, even though it has only forty acres of agricultural soil. Another problem lay in the reliance on aerial photos. While these are very good photos (see Figure 1.), the sheer number of parcels called for quick, subjective decisions on land use, and the tree canopy often obscured any underlying detail. Thus it was almost impossible to tell whether a woodlot was grazed, and the extent of agricultural use. To compensate, local knowledge of several islands was very useful. For San Juan Island, windshield surveys were employed to figure out such puzzles as medium sized mowed areas, many of which were lawns, instead of agricultural fields.

In addition, most parcels are managed in more than one way. Sixteen basic land use categories produced forty-six common combinations (Table 1, and Figure 2). These forty-six categories were collected into four groups: agriculture, fallow, forest, and commercial. These groups are related to the likelihood of farmland loss. It was assumed that parcels in the commercial group were not going to be used for agriculture in the foreseeable future. Parcels in the forest group would be unlikely to be used for agriculture, due to the costs of land clearing. Fallow parcels could more easily return to agricultural production, but they could also continue the along the path into shrub and then forestland, and therefore are most at risk of farmland loss. Parcels in the agriculture group have varying chances of staying in agriculture, which is reflected by the

shading shown in Figure 2. For example, the darker green of Forage is a more stable agricultural use than the lighter green of Forage/Forest. Also, the darker red of Fallow/Forest indicates a more likely permanent loss of agricultural use than the pink of Fallow/ Lawn.

Home gardens, as well as larger market gardens, were included for another project by the ARC. A decision was made that gardens encompassing more than one-quarter acre would be counted as agricultural, while those under a quarter acre would be classified either as fallow or forest using other information.

Results

Looking at the attributes of parcels with at least one acre of agricultural soil, several trends stand out (Table 2). Parcels in the fallow, commercial, and agricultural groups have similar percentages of agricultural soils on average (73%, 73% and 79%, respectively). But mean parcel size for fallow or commercial land is less than half that of agricultural parcels. The difference between the groups has more to do with their size than their soil, leading to the conclusion that, for these three groups, land use is linked to parcel size. This becomes evident on a more intuitive level when looking at the maps (Figure 3), which show many smaller fallow parcels surrounding and occasionally encroaching on larger agricultural parcels. Land in the forest group contains a much smaller percentage of agricultural soils (49%), so it is more likely that these parcels are better suited to that land use.

The mean size of agricultural parcels (22.4 acres) in this study is very different from the average in the 2007 USDA Agricultural Census (74 acres). Only the largest commercial farms that filed Schedule F income tax statements also volunteered to be surveyed by the USDA, while this project covered many small, noncommercial farms. A more comprehensive overview is an advantage to the more inclusive definition of agriculture used in this study.

The maps lead to several conclusions. As mentioned, fallow lands tend to be smaller parcels around agricultural parcels. Urban Growth Areas lie next to agricultural areas, which is not surprising when you realize that towns grew up around some of the county's most productive farms (Figure 4). While there are arguments that agricultural land adjacent to Urban Growth Areas can be beneficial (see *City of Redmond v. Central Puget Sound Growth Management Hearings Board*, 136 Wn.2d at 58), it is undeniable that there is more development pressure on these lands. As the Washington State Growth Management Hearings Board has said, "Both experience and common sense indicate that conversion of agricultural resource lands to nonagricultural uses is a one-way ratchet. To suggest that designated agricultural resource lands, once given over to intensive uses demanded by an ever-increasing urban population, could ever be "retrieved" is simply not credible." (*Green Valley, 98-3-0008c*, FDO, at 18.)

Next Steps

The ARC has recommended to the County Council that San Juan County adopt a policy of “No Net Loss of Agricultural Resource Lands”. The policy would provide a procedure for mitigation should any Agricultural Resource Land (ARL) be taken out of ARL by de-designation. The policy would require designating an appropriate area of adjacent farmland to ARL zoning in order to maintain a base acreage of ARL. This project was able to map parcels that could serve in this regard (Figure 5), and found that there are more than enough parcels available (652 parcels already zoned ARL, and 952 potential parcels). The adoption of a “No Net Loss” policy and the enforcement of planning policies already on the books would increase awareness of the importance of farmland preservation. Once the policy is adopted, it would seem prudent to educate alternative ARL parcel owners about the advantages of agricultural zoning.

San Juan County is the only county in the state whose voters have endorsed the concept of a Land Bank, where a small tax on land sales funds the acquisition of exemplary lands, including agricultural lands. Local citizens have also endorsed farmland preservation through the San Juan Preservation Trust, the first nonprofit land trust in the state. Both these organizations work aggressively to preserve farmland through acquisition and conservation easements. Further incentives to decrease development rights would help preserve the larger farms that seem better able to stay in agricultural production.

The promotion of more intensive agricultural models would help the smaller parcels that seem to be in greater jeopardy of farmland conversion. Again, San Juan County is a leader with such programs as the Lopez Locavores’ Evening Meals at the School (www.lopezlocavores.org), the Islands Certified Local program (www.sjcarc.org), and the San Juan Islands Agricultural Guild (www.sjiagguild.com). Another possibility would be a study of the food system of San Juan County, detailing the food consumed, grown, exported, and imported. Such a study would be more easily done in a county with only one portal (i.e., the ferry) for imports and exports. The results could detail new marketing opportunities for specific agricultural commodities.

Conclusions

From this study, it appears that the greatest threat to farmland in San Juan County is small parcel sizes. Smaller parcels tend to have more fallow land, which leads to forestation and consequent loss of farmland. Reducing the sales of small pieces of larger farms would slow that loss. Thus, enabling programs to purchase the development rights of larger farms might be the most effective path to farmland preservation in this county.

Another avenue would be support for smaller, more intensive farms. Education, recruitment of innovative farmers, opening new markets, and a less onerous regulatory environment could

lead to a renewal of agriculture in the county. There does not seem to be a lack of farmland for small farms.

Indeed, saving all the farmland in the county will not guarantee the existence of farms. To achieve that goal, farming must be profitable. In the 2002 USDA Census of Agriculture, San Juan County was one of only three Washington state counties to have an average net loss of income for farming operations. By 2007, five other counties had joined the club. Now is the time to provide education, business skills, and regulatory reform for farmers to help them make a profit. If farming were more profitable, less land would be sold for residential development. Farmland preservation requires natural resources, the economic support of a profitable enterprise and the social support of a community. Milking stools don't have one leg.

Acknowledgements

The Washington State Office of Farmland Preservation has supported this project from its inception. The staff at the Agricultural Resources Committee of San Juan County worked to procure the grant and to see it finished. The San Juan County GIS Team gave time, software, and help whenever needed. The San Juan Islands Conservation District provided office space, administrative assistance, brainpower, and encouragement. Special thanks go to the San Juan County Land Bank, the San Juan Preservation Trust, and WSU Extension for San Juan County—our Farmland Preservation Partnership.

Bibliography

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USDA Census of Agriculture, 2002 and 2007. Available online at <http://agcensus.usda.gov>

Washington State Growth Management Hearings Board, Green Valley, 98-3-0008c, FDO, at 18.

Ibid., Redmond, 136 Wn.2d at 58

Table 1.

Category Grouping

<u>Commercial</u>	<u>Fallow</u>	<u>Forest</u>	<u>Agriculture==</u>
Commercial	Fallow	Forest	Forage
Road	Golf Courses	Wetland/Forest	Orchard
Cemetery	Lawn	Wet/Fallow/Forest	Nursery
Airport	Fallow/Forest	Gar<.2A/Wet/Forest	Vineyard
School	Fallow/Lawn	Gar<.2A/Lawn/Forest	Gardens > 0.2 Acres
Wetland	Road/Fallow	Commercial/Forest	Equine
	Wet/Fallow	Garden<.2A/Forest	Equine/Fallow
	Garden<.2A/Fallow	Gar<.2A/Fal/Forest	Forage/Fallow
	Gar<.2A/Lawn	Lawn/Forest	Forage/Forest
		Wet/Lawn/Forest	Forage/Lawn
			Forage/Wetland
			Garden/Equine
			Garden/Forage/Forest
			Garden/Forage
			Garden/Forage/Fal
			Garden/Orchard
			Gar>.2A/Wetland
		Nursery/Forest	
		Orchard/Forage	
		Orchard/Forest	
		Vineyard/Forage	

Table 2.

Land use of parcels containing one acre of agricultural soil in San Juan County

<u>Category</u>	<u># Parcels</u>	<u>Mean Size</u>	<u>Ag Soil Area</u>	<u>Parcel Acres</u>	<u>%</u>
Commercial	128	9.5	868	1,215	2
Fallow	983	10.0	6,956	9,835	13
Agricultural	1,115	22.5	19,908	25,069	34
Forest	<u>2,449</u>	<u>15.2</u>	<u>18,060</u>	<u>37,140</u>	<u>51</u>
Total	4,675	---	45,792	73,259	100
San Juan County	16,958	6.5		111,941	
USDA Census	291	74 (average)		21,472	
ARL Zoning	652	21.3		13,891	
Alternate ARL	952	22.7		21,566	

This study found 45,792 acres of agricultural soil in San Juan County, and 13,463 acres of active agricultural land.

Figure 1. Farm Aerial Photo



Figure 2. San Juan County Farmland Use

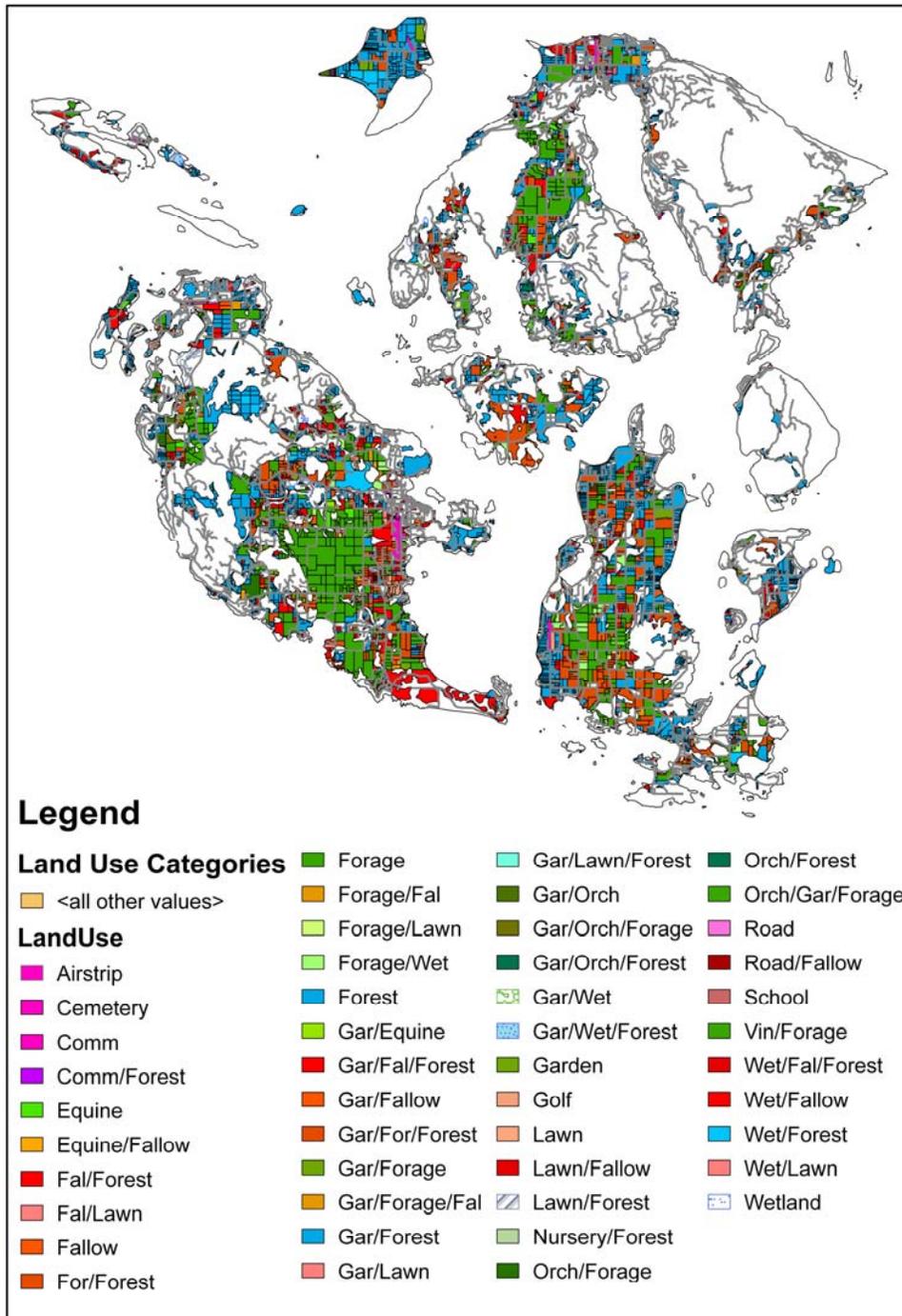


Figure 3. San Juan County Farmland Use

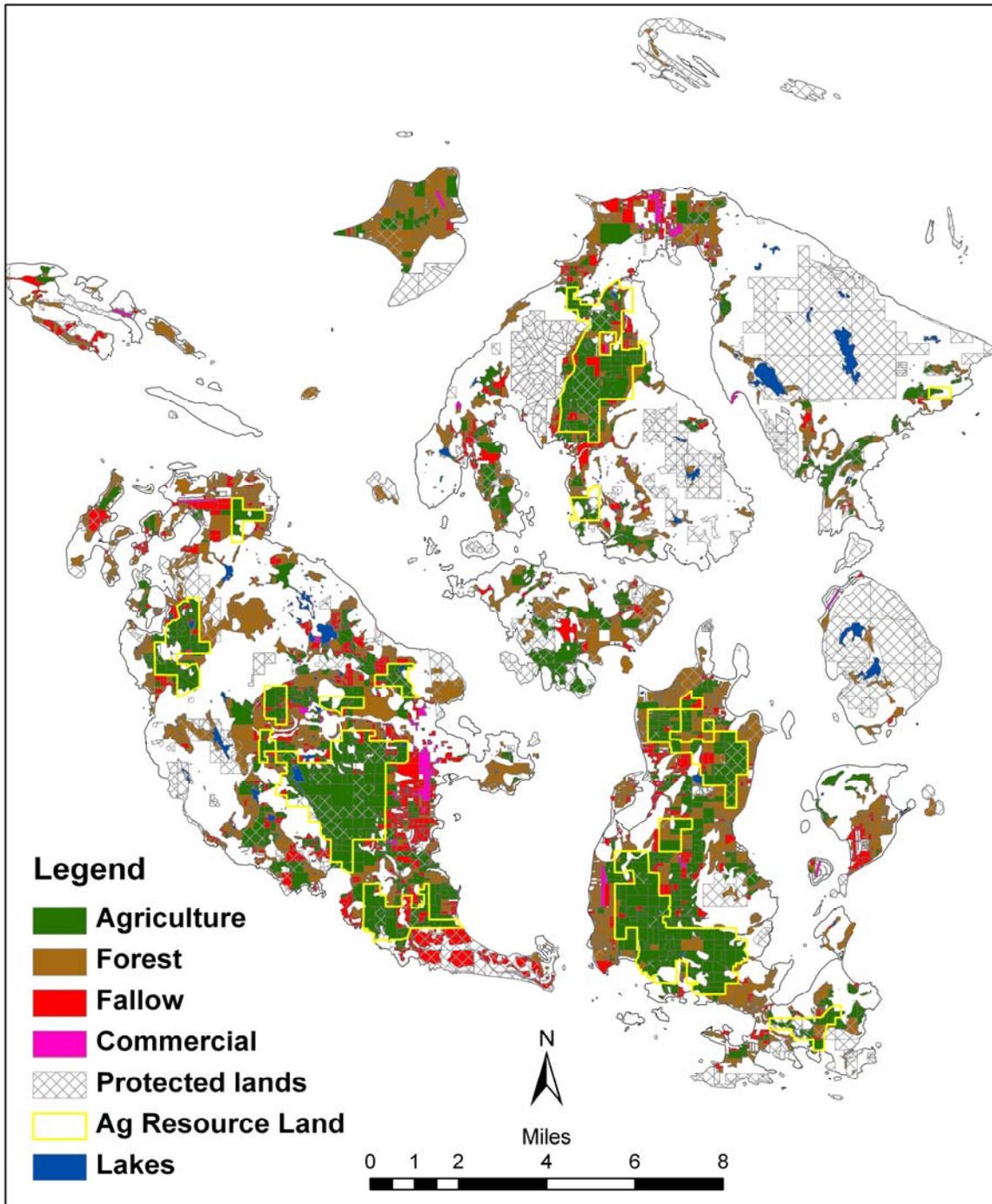
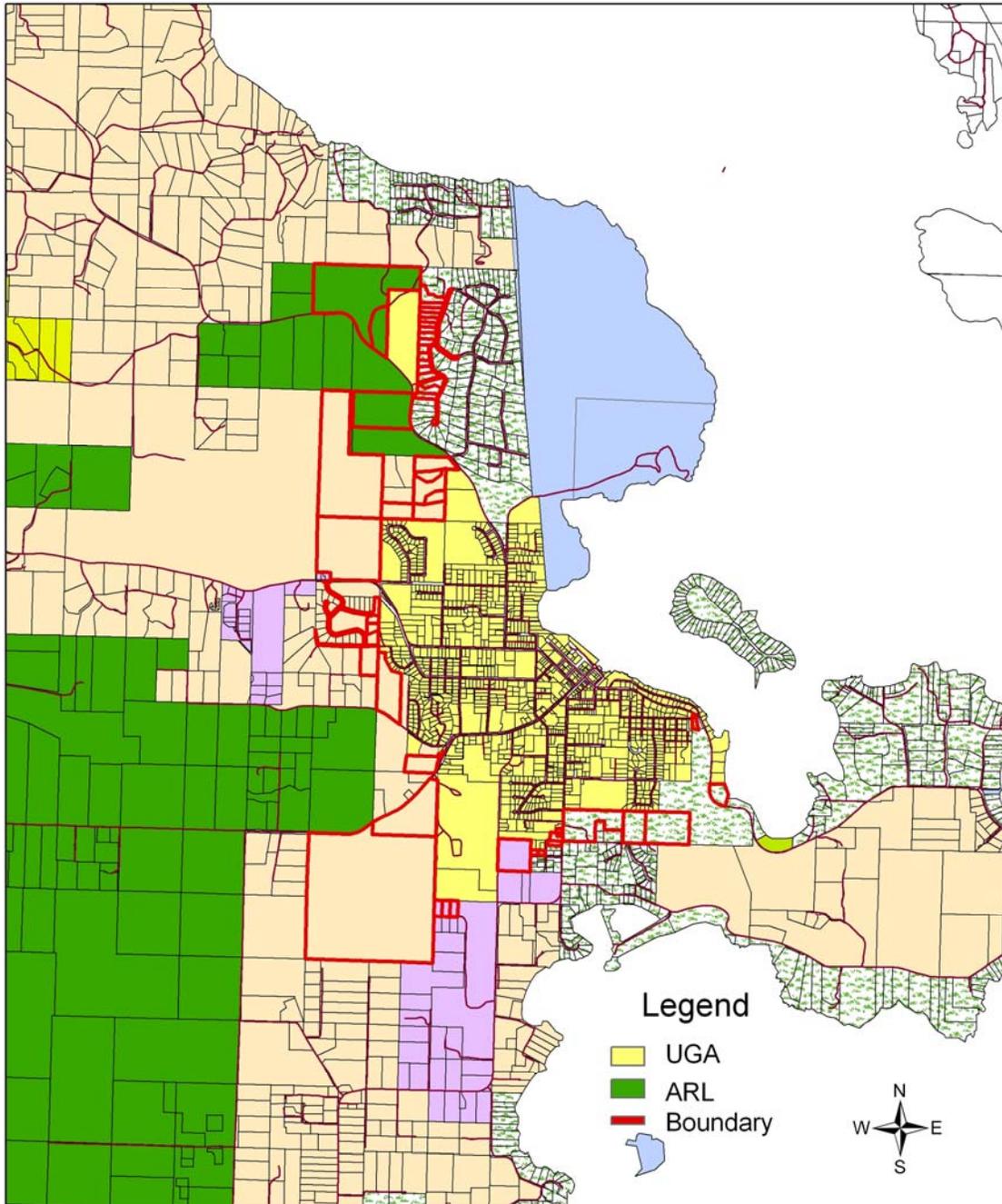


Figure 4. Friday Harbor UGA and ARL Boundaries



**Figure 5.
Future Possibilities for Ag Resource Zoning**

