



**San Juan County  
Community Development & Planning**

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DATE: April 15, 2008

**Staff Report**

TO: COUNTY COUNCIL

THRU: PETE ROSE, COUNTY ADMINISTRATOR

FROM: COLIN MAYCOCK, SENIOR PLANNER, DON KEHRER,  
PLANNING CONSULTANT

SUBJECT: EASTSOUND URBAN GROWTH AREA LAND SUPPLY  
ANALYSIS

ISSUE:

Evaluating and approving the Land Supply analysis carried out for Eastsound as one element of the broader project of bringing the Eastsound Urban Growth Area (UGA) into compliance with the Growth Management Act (GMA).

**EXECUTIVE SUMMARY:**

The Western Washington Growth Management Hearings Board (GMHB) Final Decision and Order Case No. 05-2-022c, June 20<sup>th</sup>, 2006 regarding the Eastsound UGA found that in order to be considered compliant, the county would need, in part, to;

1. 'Show its work' with regard to projected land needs for Commercial and Institutional development within the UGA.
2. Show that there are specific circumstances that justify the less than urban densities of some parcels.

The land supply analysis below shows that there is sufficient land available within the Eastsound UGA to meet the needs of the projected population for Commercial, Residential and Institutional uses through 2020. In essence, the county projects future commercial development at a Floor Area Ratio (FAR), of .30, a FAR that is in keeping with long term development trends in the Village Commercial District; the county also shows that the existing institutional uses have sufficient space to

expand in place without exceeding the lot coverage permitted by the Eastsound Subarea Plan and that there is also adequate land in place to allow for the development of unexpected institutional uses; finally the land supply analysis shows that there is sufficient land for residential uses at the already permitted densities.

San Juan County is planning to house 50% of the projected population growth on Orcas Island within the Eastsound UGA defined in Ordinance 13-2005. The current UGA provides space and zoning sufficient for up to 687 units. The population increase will raise demand for commercial goods and services. As shown below, while approximately 8.6 acres will be needed to meet the increased demand for commercial activities, the Village Commercial district contains approximately 16 acres of potentially developable land. Concomitant with the population increase, there will be an increased demand for existing and new Institutional uses, all of which can be met within the existing UGA boundary.

The 2005 UGA contained a number of parcels that were zoned at less than urban densities, this report details both the specific reasons why they should be in the UGA and, simultaneously, why increased density is an inappropriate use for these parcels. The particular reasons for limiting future development on these parcels are tied to the presence of flood zones, archaeological sites and steep slopes.

## **BACKGROUND:**

The Eastsound UGA was adopted by San Juan County in October of 2000. The UGA covered an area of about 1,263 acres and was located within the previously designated Eastsound Planning Area. The Eastsound Planning area was originally established in 1981 with the adoption of the Eastsound Subarea Plan. The plan has been revised over the years. At the time of the adoption of the Eastsound UGA, in 2000, the Eastsound Planning Area included about 1,767 acres. The 1,240 acre Eastsound UGA encompassed about 72 percent of the land area within the Eastsound Planning Area. The Eastsound Subarea Plan provided and continues to provide land use and development goals, policies and regulations that have shaped the development and use of land in the Eastsound Planning Area since about 1981.

The adoption of the Eastsound UGA, along with other county planning decisions, including the adoption of the Lopez Village UGA, was appealed to the GMHB. In May, 2001, the GMHB issued a FDO in the matters under appeal. The GMHB found the Eastsound UGA to not be compliant with the GMA and ordered that 1) UGA boundaries be established using the criteria of RCW 37.70A.110 and 2) that the non-municipal UGA boundaries be established only after a capital urban facilities and service analysis was completed.

While the GHMB found that additional work was needed to establish the boundaries and the service needs, the hearings board commented that the “concept” of establishing unincorporated UGAs not only complies with the GMA but appears from the record to be the only viable alternative available to the County to deal with affordable housing and achieve compliance with the rural element of the GMA. (GMHB 2001a, pg 5)

In response to the GMHB order the county initiated a number of activities to achieve compliance with the Boards decision. With regard to the Eastsound UGA, activities included the preparation of a transportation and utilities analysis, additional land use analyses, recommendations for airport overlay zoning, and boundary and density analyses to establish reasonable UGA boundaries. .

By May 2002 the transportation and utilities analysis had been completed and the airport overlay zoning recommendation was also completed. Additional work on the UGA boundary and density analyses had also been completed. On May 6, 2002, the county filed a motion with the GMHB to find the Eastsound UGA and Lopez Village UGA in compliance with the GMA.

The GMHB Final Decision and Order (FDO) on the county's motion was issued in October 2002. The GMHB found that while significant progress had been made the County still had work to do. The portion of the October 2002 order that applied to the Eastsound UGA found that for the Eastsound UGA to achieve compliance, amongst other things, the county needed to:

1. Complete an Eastsound UGA capital facilities analysis with respect to wastewater and drainage services.
2. Reconsider the inclusion of the westernmost, low density properties in the Eastsound UGA and establish appropriate urban densities for the non-municipal UGA.

In the time since the October 2002 FDO additional work has been done to achieve compliance with the requirements listed above. With regard to the Airport Overlay District, In September 2003, the County adopted new airport overlay regulations for the Orcas Island Airport. In December 2003, the Growth Management Hearings Board found the Airport Overlay District regulations to be compatible with the requirements of the Growth Management Act and consequently, item number 4 above was satisfactorily completed.

With regard to the remaining items, the County Public Works Department has prepared an evaluation of the stormwater capital facilities (SJC 2004). The Eastsound Sewer and Water District prepared and updated General Sewer Plan, although it was not formally adopted and Staff prepared additional information regarding land supply and market factor for a revised Eastsound UGA.

Ordinance 13-2005, which delineated the current UGA boundary and zoning was adopted by the San Juan County Board of County Commissioners on October 25, 2005. On November 29, 2005 the county filed a Statement of Actions with the GMHB to find the UGA compliant with the GMA.

The UGA boundary was appealed and the GMHB issued FDO Case No. 05-2-022c on June 20<sup>th</sup>, 2006.

Since that time the county has completed an extended negotiation with the ESSWD for updating the existing sewer plan, revised the 2005 land supply analysis to 'show

its work' and has adopted (only to have it later overturned by referendum) an ordinance that funded the county's storm water management programs.

## **1. Introduction: Land Supply Analysis**

Although the first Eastsound Urban Growth Area was conceived in 1998, revised in 2000 and revised again in 2005, as yet (January 2008), none of the proposed UGA configurations have been found compliant by the GMHB. In recognition of the extended gestation of the Eastsound UGA and the fact that the land supply analysis below builds upon previously published documents, the county has retained several key elements of earlier documents. This was done to maintain continuity between documents as well as analysis and therefore ensure transparency and to acknowledge the fact that this is just one part of a larger and continuously ongoing project. The Western Washington Growth Management Case, *Abenroth v Skagit County* (Case # 97-2-0060c) Aug, 2007, Final Decision and Order states that;

Amendments to the comprehensive plan, such as this subarea plan, must conform to the existing comprehensive plan and use the same planning period. If they did not, the planning period in the subarea plan would be inconsistent with the comprehensive plan in violation of RCW 36.70A.070 and 36.70A.080 (2).

In keeping with this Western Washington Growth Board decision, the population figures featured in the residential land supply analysis of 2005 were premised upon the 2000 census and historic growth rates. Similarly, the planning horizon of 2020 was retained. The 2020 planning date reflects that of the existing comprehensive plan and is both appropriate and required.

As is noted in the text below, the existing land uses and building sizes were compiled by combination of methods, including aerial photographs from 2004, the Assessors property records and site visits. The baseline, again, is 2005 in order to maintain continuity with earlier reports, however, where necessary or applicable new development since 2005 has, as far as possible, been included as part of the analysis. The consideration of the most recent (November 2007) developments is an important element of the overall discussion of the Floor Area Ratios expected on commercial lots in the future.

This land supply analysis has been prepared to respond to the FDO of the GMHB in Case # 05-2-0019c in which the Board found that the County had failed to "show its work" with regard to commercial and institutional land supply within the Eastsound UGA. The analysis is based on land use and population data specific to Eastsound and includes information derived from San Juan County Assessor's records, aerial photographs and U.S. Census information. The existing characteristics of commercial and institutional development specific to Eastsound, including building area, parcel size and development density, were used to project future demand for these types of uses and consequently the supply of land required to meet the demand. The analysis describes the assumptions made and the methodology used to evaluate land supply.

The findings of the EDAW Technical Memorandum prepared in 2000 were revisited in conjunction with the preparation of this land supply analysis. The numbers used in the EDAW study were estimates based on generic “rule-of-thumb” standards using land use data provided by the county for the larger 2000 Eastsound UGA. A different methodology was used for the analysis below that focused on a detailed parcel based estimate of commercial and institutional demand in the smaller 2005 Eastsound UGA. The demand analysis is based on land use data specific to the current Eastsound UGA and therefore the demand estimate is likely to be a better representation of the actual demand for commercial and institutional services on Orcas Island than a “rule of thumb” estimate as well as a more nuanced one.

The methodology used for evaluating the commercial and institutional land supply is similar to the method that was used to evaluate the residential land supply. However, because a new Eastsound UGA boundary was established in 2005, the analysis began with an evaluation of whether there was a sufficient supply of land included within the boundary of the 2005 UGA to provide for the anticipated growth in commercial and institutional sectors to serve the needs of the additional population.

That analysis, as described below, resulted in a determination that there is a sufficient supply of land within the Eastsound UGA for commercial and institutional development over the planning period without a need to adjust the boundary of the Eastsound UGA adopted by San Juan County in 2005.

Although no change in the boundary of the UGA is needed, the analysis of the commercial and institutional land supply resulted in some changes to the residential development potential (RDP) of some properties in the UGA. Subsequently, the previously submitted residential land supply analysis has been updated and the updated analysis has been included here.

## **A. Population Growth Estimates**

### **Year 2000 County Population Characteristics.**

Year 2000 Census data shows that the population of Orcas Island in 2000 was 4,445 persons. The population occupied a total of 2,090 housing units. Based on these figures, the average number of persons per housing unit was 2.13.

The estimated average annual 20-year population growth rate for San Juan County has been estimated by County Staff to be about 2.2 percent per year. Using the year 2000 population for Orcas Island of 4,445 persons and applying the 2.2 percent annual growth rate over 20 years to the year 2020, the island population in the year 2020 is estimated to be 6,869 persons.<sup>1</sup> This is an increase of about 2,424

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<sup>1</sup>The November 2007 GMA population projections, medium series, sets the 2020 County population at 20,857. Currently Orcas makes up 31.6% of the County’s total or 6590 persons or 279 fewer residents than projected above, or a projected increase in Eastsound of 817 people rather than 956, a 14.5% decrease. If the low series is used, which given the recent crisis in housing prices and lending institutions, may be appropriate the project population for Orcas in 2020 is 5,668 which would indicate that Eastsound would only grow by 356 people rather than the 1,913 projected in 2005. Using the 2005 projections is the more conservative approach because it presumes a greater population.

persons over the 20-year planning period. In order to preserve the rural character of the island and avoid sprawl, the County, working with the community, has established the Eastsound Urban Growth Area as the location for accommodating as much as 50 percent of the increase in population of Orcas Island anticipated by year 2020.

### **Year 2005 County and UGA Population Characteristics**

The estimated 2005 population of the Eastsound UGA is about 950 persons. This figure was based on information provided by the Eastsound Water Users Association from water service records of the District as well as local knowledge of the Board members of the District.

The estimated island population in 2005 was about 4,956. This figure was obtained by advancing the 2000 population by 5 years using an average annual growth rate of 2.2 percent. Using the estimated 2005 population figure of 4,956 and the estimated 2020 population of 6,869, the island population is expected to grow by about 1,913 persons between 2005 and 2020.

## **B. Housing: Anticipated Demand and Land Supply**

### **Housing Unit Demand**

For the purposes of estimating housing demand and from the standpoint of preventing sprawl while maintaining the rural character of the island, it would be desirable if a large proportion of the anticipated Orcas Island population growth during the planning period were to occur in the Eastsound UGA, an area planned to accommodate growth. In that regard, the county has planned for a UGA of sufficient size to accommodate housing for 50 percent of the population growth expected to occur on the island over the period 2005 to 2020 or sufficient land to provide for an increase of an additional 956 people (1,913 persons x 0.5). Based on an average household size of 2.13 persons, the demand for housing over the planning period to the year 2020 would be about 449 dwelling units (956 persons / 2.13 persons per household).

In addition to the land supply needed to satisfy the demand for housing, land is also needed to accommodate the growth of non-residential land uses including retail commercial and service commercial businesses, industrial uses, and community support facilities such as schools, churches, fire stations, government services and community centers. This latter group of uses is commonly referred to as institutional uses. They are generally non-profit ventures aimed at supporting the health, safety and wellbeing of the community. The Eastsound Urban Growth Area as established in 2005 contains sufficient land area to accommodate the anticipated demand for land for housing, commerce and institutional facilities over the planning period to 2020.

As described above, the number of new housing units needed to accommodate the anticipated growth in the Eastsound UGA by the year 2020 is estimated at 449 units.

The amount of available land in the Eastsound UGA needed to provide sufficient space for 449 housing units is a function of a number of factors including the following:

- a) A market factor to account for undeveloped land within the UGA boundary zoned for housing that won't be developed or come on the market to be developed during the planning period.
- b) A seasonal home factor that takes into account the development of residential land or the purchase of a multi-family housing unit for seasonal occupancy. This effectively removes the dwelling unit or property from being available for year-round housing. This can be a significant factor in San Juan County because of the relatively high percentage of housing that is used seasonally and is unavailable to satisfy the demand for year round housing.

### **Market Factor**

The first factor considered was the market factor. The market factor accounts for undeveloped land within the UGA boundary that won't be developed with housing or come on the market to be developed with housing during the planning period due to the landowner's decision to not sell or develop the property. A typical value for market factor used in many communities in the state is 25 percent. A market factor of 25 percent means the net amount of developable land needed for the expected growth over the planning period would be increased by 25 percent to account for the market factor. As identified above, the number additional housing units needed to meet the demand by the year 2020 is 449 units. A 25 percent market factor means that the land supply must be sufficient to provide for a total of 561 housing units, (449 units plus an additional 25 percent or a market factor of an additional 112 units).

### **Seasonal Home Factor**

Data from the 2000 census shows that seasonal housing accounts for about 25% of the total number of housing units on Orcas Island. A seasonal housing unit does not contribute to the supply of housing for permanent year round residents. Seasonal housing has the effect of reducing the amount of land available for permanent year round housing. Assuming the ratio of seasonal to non-seasonal housing will remain relatively constant over the planning period, about 25 percent of the available developable land in the UGA would be taken up by seasonal housing. As a result the amount of developable land will need to be greater than the amount needed to develop for 449 housing units by about 25 percent or the amount to provide for an additional 112 units.

Combining the market factor with the seasonal home factor results in the need to ensure there is sufficient developable land to allow for the construction of a total of about 673 housing units over the planning period.

### **Residential Land Analysis.**

Map A provides the results of the County's land supply analysis for the proposed Eastsound Compact UGA. The analysis shows that there is sufficient land available in the Eastsound UGA to provide for a total of at least 687 housing units. This figure was estimated by evaluating the Residential Development Potential (RDP) for each of the tax parcels within the boundary of the UGA. The following describes the methodology used to determine residential development potential.

## **Residential Development Potential (RDP) Analysis**

The land parcels shown in Map A are based on the San Juan County Assessor's tax maps. The parcel information is from 2004 tax records.

The Residential Development Potential (RDP) of each parcel was established as follows:

- a) The maximum number of residential units for each parcel was calculated first by multiplying the area of the parcel by the maximum residential density allowed by the underlying zoning. For example, if the underlying zoning allowed one unit per acre and the parcel was 2 acres in size the maximum number of units for that parcel would be two. Each parcel with residential zoning has at least 1 unit of development capacity.
- b) Once the maximum development capacity was established for each parcel based on the underlying zoning, an estimate of the actual development potential was determined by evaluating factors that might affect the likelihood of additional units being added up to maximum allowed by the underlying zoning. Such factors included the following:
  - Whether the property had been set aside as open space
  - Whether the property is already fully developed
  - Whether the property is affected by wetland
  - Whether the property was in an airport overlay zone
  - Other factors specific to an individual parcel that may affect its development potential such as size and shape.
  - Owner's plans for selected properties based on phone interviews, modified in some instances if the owner indicated a very low RDP, even though the zoning would allow otherwise.
- c) The following rules were generally applied to arrive at an estimate of the actual development potential of a particular land parcel.
  - The residential development potential of property developed with existing residential uses was determined by subtracting the number of existing residential units from the number allowed by the underlying zoning.
  - No RDP was assigned to parcels for one acre or less in size developed with one or more single-family residences irrespective of the underlying zoning.

Staff believes that the likelihood that lots in this category would be subdivided and additional units developed is small.

- No RDP was assigned to parcels where the underlying zoning allowed residential uses as accessory to a primary non-residential use.
- RDP for parcels covered by wetlands shown in the County's GIS database was reduced based on the amount of the property affected by wetlands. If the entire parcel was overlain by GIS wetlands, no RDP was assigned. If there was sufficient area remaining on a parcel partially overlain by wetland to locate a house at least an RDP of one was assigned. More were assigned if available and the remaining area appeared sufficient to accommodate more. This analysis was done visually and is somewhat subjective.
- RDP for parcels affected by the airport overlay zone was reduced based on the required density reduction for that zone. For parcels that were crossed by overlay zone boundaries, a visual estimate of the amount of the property that was outside the zone was used to determine the RDP for that parcel.
- Property owners of some of the larger lots with large RDP were contacted to determine whether the RDP assigned to the lot was reasonable. RDP for the lot was corrected as appropriate based on the landowner's comments.

Under the rules set out above, a total of 80 units were originally identified for the Village Commercial district. The land in the Village Commercial district is better suited to commercial uses and land values are set accordingly. Multifamily housing, and housing at the rear or above commercial uses, will likely make up the majority of future housing in this district. This type of housing has limited appeal. In addition, because the Village Commercial district regulations allow both commercial and residential development, the assignment of housing units on a parcel basis is problematic. As a result staff has reduced the residential development potential of the Village Commercial District from 80 units to 20 units. The 20 units are assigned to the Village Commercial District as a whole rather than by parcel and provides a more realistic estimate of the amount of housing staff believes is likely to develop in the Village Commercial district over the planning period.

As a result, the residential development potential proposed in the 2005 Land Supply analysis has been reduced by 60 units. This reduces the residential development potential of land within the UGA to 687.

### **Comparison of Housing Demand with Supply of Land for Housing**

As described above, a land supply sufficient to provide for 673 housing units is estimated to be needed to meet the growth projections for the Eastsound UGA assuming that the UGA will absorb 50 percent of the island growth over the fifteen

year period from 2005 to 2020. As described above and illustrated on Map A<sup>2</sup>, the Residential Development Potential (RDP) of land within the UGA is estimated to be about 687 units. The estimated residential development potential in the Eastsound UGA, though reduced by 60 units from the estimate of 2005, still compares favorably with the estimated demand for housing over the planning period.

## **C. Commercial Development: Anticipated Demand and Land Supply**

### **Introduction**

Eastsound is the major commercial center of Orcas Island. The County Comprehensive Plan and Eastsound Subarea Plan envision Eastsound will continue to function as the commercial center of Orcas and, similarly, that the Village Commercial district will continue to serve as the commercial center of Eastsound. As consequence, the commercial land supply in the Eastsound UGA needs to be sufficient to provide for island-wide growth in demand for commercial goods and services over the planning period. Activity centers such as Olga, Orcas Village and Deer Harbor will continue to provide limited convenience retail and tourist related services but commercial activities at these locations are not expected nor are they encouraged to expand significantly.

An analysis of the commercial demand and the land supply required to meet the demand was completed and the supply of available land in the Village Commercial district evaluated. The analysis resulted in a determination that the demand for additional commercial space in Village Commercial district of Eastsound over the planning period to the year 2020 is about 90,294 square feet. At an average floor area ratio (FAR) of 0.30 for commercial development in the Village Commercial area, the development of 90,294 square feet of commercial space would require about 6.9 acres of land. When a market factor of 25 percent is included the amount of land required is about 8.6 acres.

The combined total of vacant and underutilized land in the Village Commercial district of Eastsound potentially available for commercial development was determined to be about 16 acres. The land supply of approximately 16 acres is greater than the anticipated demand (including market factor) of 8.6 acres. Based on these numbers no land area needs to be added to the Village Commercial district to meet the anticipated demand for commercially developable land over the planning period.

The following is a description of the analysis that resulted in the findings summarized above.

### **Demand for Commercial Goods and Services**

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<sup>2</sup> Questions have arisen regarding the large parcel on the eastside of the airport. In the absence of the Airport safety zone the area would have been given an RDP of 180 units, however, because of the Airport safety zone that number has been reduced to 44.

The commercial center of the Eastsound UGA is the Village Commercial district located in the southeast area of the Eastsound UGA (see Map A). The Village Commercial district includes about 51 acres of land less roads and includes all of the land in the Eastsound UGA with a Village Commercial land use designation under the Eastsound Subarea Plan. The Village Commercial land use designation allows for the full range of retail and service commercial uses as well as non-commercial uses. Commercial uses currently contained in the Village Commercial district include among others, restaurants, retail shops, offices, personal services, tourist accommodations, grocery, building supply and hardware stores.

For the purpose of evaluating demand for goods and services, this analysis assumes the following:

- a. The businesses on the island are meeting the goods and services needs of the three primary consumer groups namely, full time residents, seasonal residents and tourists.
- b. As demand for goods and services increases with population growth, the business community will respond either by expanding existing businesses or developing new businesses to meet the market demand.
- c. Growth in the fulltime resident population is mirrored by growth in seasonal residents and tourists such that the proportion of fulltime residents to seasonal residents to tourists will remain roughly the same over the long term. The corollary to this assumption is that the shape of the growth curve in the demand for goods and services over time mirrors the growth curve of the island's fulltime resident population.
- d. The majority of the new and expanded commercial development needed to meet the increase in demand will occur in the Village Commercial district of Eastsound.
- e. As a consequence of assumptions c. and d. above, the per capita amount of commercial space in the Village Commercial district of Eastsound can be expressed as square footage of commercial space per island resident and this per capita figure will provide a reasonable estimate of the island wide demand for commercial goods and services in the Village Commercial district of Eastsound by all consumer groups.

Since not all of the future commercial development on the island would be confined to the Village Commercial area of Eastsound, the last assumption above would tend to result in a somewhat overstated and thus more conservative estimate of the land supply needed in the Village Commercial district to meet anticipated demand. This tendency is offset somewhat in the following analysis by using only the existing commercial development in the Village Commercial district, and not island wide commercial development, as the basis for determining existing per capita

commercial demand expressed as square footage of commercial space per island resident.

Retail/service businesses in the Village Commercial district exist in response to demand for these services. Consumers, represented primarily by three consumer groups, full time island residents, tourists and seasonal residents, create the demand. Based on assumption 'a' above, the demand for goods and services in the Village Commercial district in 2005 was being met by the then existing 233,882 square feet of commercial space (Map C and Table A-1). The estimated island population in 2005 was 4,956 persons. The per capita square footage of commercial space in the Village in 2005 was therefore about 47.2 square feet of commercial space per full time island resident.

As identified in assumption 'e' above, although the per capita square footage of commercial space of 47.2 square feet is expressed in terms of the island's full time residents, the commercial space in the Village Commercial district has developed in response to the demand by all three consumer groups and not just full time residents. The figure for per capita commercial space is an index that relates commercial space to fulltime island population. The use of this index to project demand over a particular time period assumes that the ratio of consumer types will remain constant as the population increases (assumption 'c' above) and therefore the relative mix of retail/service commercial development will likewise remain constant. For land use planning purposes over the geographic area and for the planning period under consideration, these assumptions are reasonable.

Between the year 2005 and 2020, the population of Orcas Island is expected to increase by 1,913 persons. Based on a per capita commercial space figure of 47.2 square feet per person, it is anticipated that by the year 2020, an additional 90,294 square feet of commercial space will be needed in the Village Commercial district of Eastsound to provide for the increase in demand (1,913 persons x 47.2 sq. ft. per person).

Just how densely the land is developed will determine how much land overall will be needed to create 90,294 square feet of commercial space. The existing (year 2005) commercial density in the Village Commercial district as measured by the Average Floor Area Ratio (FAR) of commercial space is 0.27 (see Map B and Table A-2). The 2005 average floor area ratio is the result of both historic and current development patterns. The average FAR of development that has occurred in the Village Commercial district since 2000 is substantially higher than the overall average. The high FAR of the more recent development reflects the substantial increase in land values that have occurred over the past decade. Due to the relatively high price of land and the need to maximize returns, it is likely that the trend toward the development of higher FARs will continue. In that regard, staff has determined that the use of the current FAR of 0.27 to project the density of future does not reflect the trend over the past seven years of commercial development in the Village Commercial district. As a consequence staff has concluded that for the purposes of projecting the density of future commercial development, an average FAR of 0.30, while still conservative, provides a better estimate of future development density in the Village Commercial district. Therefore, a FAR of 0.30

has been used in the following analysis as a measure of the anticipated density of commercial development over the planning period.

If the anticipated 90,294 square feet of commercial space needed by the year 2020 develops at a FAR density of 0.30, approximately, 300,980 square feet or about 6.9 acres of land will be needed to meet the demand over the planning period (90,294 sq. ft. divided by 0.30 divided by 43,560 sq. ft./ac). Adding a market factor of 25 percent to this demand figure will result in a final figure for the amount of land needed over the planning period to support the anticipated growth in retail/service commercial businesses. That figure is 376,225 square feet or about 8.6 acres.

As with the residential land supply, the market factor added above accounts for undeveloped or underdeveloped land within the Village Commercial district that won't become available for commercial uses during the planning period. The land may be unavailable for a number of reasons, such as the landowners decision to not develop the property or, similarly, not to put the property on the market. The market factor also takes into account the possibility that a property in the Village Commercial district would be developed with a use other than commercial, for example an institutional use such as a church. The 25 percent commercial market factor is the same as that used for the residential land supply. Unlike the residential land supply analysis, there is no additional consideration for purely seasonal businesses.

### **Commercial Land Supply Analysis**

Land use in the Village Commercial district was evaluated to determine whether the land supply requirement of 8.6 acres could be met within the boundary of the Village Commercial district of the Eastsound UGA. The land use analysis concluded that a total of approximately 16 acres of land is potentially available for commercial development in the Village Commercial district. This supply of land includes vacant undeveloped parcels as well as land on underdeveloped parcels.

Map C shows the location of parcels with commercial development potential. The land use analysis identified a total of about 4.2 acres of vacant land with commercial development potential (Table A-3), and a total of about 12.0 acres of land on underutilized commercial parcels and parcels with mobile homes (Table A-2). Vacant parcels with commercial development potential are shown in green on Map C and parcels currently developed at a FAR of less than 0.30 and mobile home parcels are shown in red. The commercial development capacity in square feet of floor area for the parcels in red was determined as the difference between the total floor area of the existing buildings on the parcel and the floor area value that would have resulted by applying a FAR of 0.30 to the same parcel. Appendix A of this report contains a more detailed discussion of the methodology and values obtained for the land supply evaluation. Table A-2 shows that building square footage development potential and acreage development potential of underdeveloped parcels.

## **D. Institutional Uses: Land Supply**

## **Introduction:**

The San Juan County Unified Development Code defines institutional facilities as:

“ . . . . . structures and related activity areas used by organizations providing educational, social, or noncommercial recreational services to the community, including performance halls, government service offices, facilities for assembly, colleges, primary and secondary schools, museums, and libraries (SJCC 18.20.090 “I” Definitions).

Institutional uses typically include non-profit and quasi-public uses and municipally owned buildings and other structures used for public purposes. Parcels within the Eastsound UGA developed with institutional uses are shown on Map D.

The full range of institutional uses, with the exception of colleges and tech schools, is represented within the Eastsound UGA. Institutional uses include religious assembly, schools, government facilities, emergency services, a community assembly/performance hall, a museum, and library. There is also a U.S. Post Office in Eastsound, which for the purposes of this land use analysis has been grouped into the commercial land use category previously evaluated because it occupies rental space in a privately owned commercial building.

The institutional uses shown on Map D have been grouped into categories. The categories include Community, Government, Religious and Schools. The Community category includes the Orcas Theater and Community Center, Museum, Library and Senior Center. The Government category includes the Fire Station, the County Public Works Maintenance facility site which includes offices for the County Sheriff and the county dock. The Religious category includes five developed church properties. The school category includes the Orcas Island Public School facilities, and four private schools. Table 1 includes a list of the uses shown on Map D along with site coverage information for each use.

## **Anticipated Institutional Demand:**

The following assumptions and factors were used to evaluate the demand for institutional uses in the Eastsound UGA.

### Population Factors:

1. As described in the in Section A of this analysis, the island population in the year 2005 was estimated to be 4,956 persons. By the year 2020 the population is expected to increase by an additional 1,913 persons to 6,869 persons, an increase of about 39 percent.
2. Public School enrollment (K-12) on Orcas Island has been declining over the past 10 years.

### Assumptions:

1. The mix of existing institutional facilities in Eastsound has developed in response to the demand for the institutional services provided by these uses and the existing facilities are satisfying the current demand.
2. The existing institutional uses in Eastsound UGA satisfy the majority of the island wide demand for institutional services particularly religious assembly and educational services.
3. Demand for services provided by institutional uses will increase in proportion to the increase in population. Based on the last ten years performance, however, the K-12 student population will not increase at the same rate as the general population. The growth in student population over the planning period will be something less than the 39 percent population growth anticipated for Orcas Island over the planning period and therefore the demand for educational services is not expected to keep pace with the demand for other institutional services and may even continue to decline or at least retain a flat trajectory over the planning period.
4. All existing institutional uses are operating to the capacity of the physical plant.
5. With minor exceptions, staff expects that the increase in demand for institutional services will first be satisfied by expansion of existing facilities on their existing sites provided the existing site has sufficient room for expansion. This expectation is based on the fact that the current institutional uses are located on land owned by the institution operating the facility. It is unlikely that an existing use would chose to develop property elsewhere within the UGA if sufficient land were available on the current site.

Based on the anticipated population growth over the planning period and the assumptions regarding institutional demand above, it is estimated that that the island would experience a 39% increase in demand for institutional services (with the exception of educational services) of over the planning period commensurate with the increase in population.

The increase in demand can be fulfilled in several ways depending on the particular service being delivered. Ways of accommodating growth can include making changes to the operation of the facility including increasing the hours of operation or in the case of places of religious assembly, scheduling additional religious services. In addition, providers can increase the size of their facilities either on site or relocate to another site.

For the purposes of the land supply analysis staff has conservatively assumed that all the facilities are operating at capacity and that in order to provide for the anticipated demand, additional building space or operational changes will be needed to accommodate growth. Assuming that the growth in demand mirrors the

growth in population, then a 39 percent increase in population would result in the need to provide a 39 percent increase in the size of the existing facility over the planning period.

### **Institutional Land Supply:**

The building footprint and site area of existing institutional uses were evaluated to determine whether the site had additional capacity to develop more building space. Potential development capacity of a site was based on the lot coverage limitations of the underlying zoning. For sites located in the Village Residential designation, lot coverage by buildings is limited to 30 percent. For sites located in the Village Commercial District the limit for lot coverage by buildings is 65 percent. Table 1 displays the results of that evaluation. The evaluation showed that all the existing institutional uses could double the size of their respective buildings without exceeding the maximum allowable lot coverage of the underlying land use designation. Staff concluded that insofar as the existing institutional uses are concerned a sufficient supply of land is available on each site for each of the uses to expand to accommodate anticipated growth over the planning period assuming that growth translates into the need to increase the amount of building floor area by 39 percent and even up to 100 percent.

Existing institutional uses in the Eastsound UGA account for most of the types of institutional uses that might be anticipated in a UGA and these uses have sufficient unused capacity on their existing site for at least a two-fold expansion. Although it is unlikely that another fire station, library, museum or public school would be needed for the Eastsound UGA over the planning period, there remains the possibility that a demand may emerge for a new type, or different variety of an existing type, of institutional use. For example, a different religious organization than those currently represented may require a site for a facility or a different type of private educational facility may need a location. Given the existing range of institutional services in the Eastsound UGA, however, it is unlikely that the demand for a significant number of new institutional uses will develop over the planning period.

The county has no separate land use designation for institutional uses. Instead, institutional uses are allowed in a variety of land use districts where the particular institutional use would be considered appropriate and generally compatible with other uses allowed in the district. Table 2 shows which type of institutional use is allowable in each of the various land use districts on Orcas Island. As the table shows, with the exception of a post office, all of the institutional uses are allowed in at least three land use districts found within the Eastsound UGA. As a result, any new institutional use proposed over the planning period would have a variety of choices with regard to location.

Insofar as land supply for new institutional uses, the market factor that has been applied to the commercial land supply and residential land supply provides for the possibility that land will be held off the market or that some residential properties and commercial properties would be developed with other than residential or commercial uses. The 25 percent market factor for the residential land supply resulted in the addition of sufficient land area to accommodate 112 more homes

than were projected to be needed to serve the anticipated population growth. Assuming 4 units per acre the result is a 30 acre surplus of residential land to account for the market factor. With respect to the commercial land supply, the 25 percent market factor resulted in a surplus of about 1.7 acres. The total land supply surplus as a result of applying a 25 percent market factor to residential and commercial land supply is about 31.7 acres.

The total combined building footprint area of the institutional uses listed in Table 1 exclusive of the Orcas Public School buildings is 118,788 sq. feet<sup>3</sup>. This results in an average of about 7,424 square feet of building footprint per user (16 users without the school, see Table B-1). Assuming what might be considered a “highest demand scenario” where the 39 percent increase in population over the planning period translates into a 39 percent increase in the number of institutional uses or about 6 new institutional uses over the planning period. Assuming each new institutional use would need an average of 7,424 square feet of building space for a total of 44,544 square feet of space, then the amount of land needed to support these new uses at the highest (and therefore most conservative) lot coverage limitation (30 percent) is about 3.4 acres or about 11 percent of the 31.7 acre land supply surplus built into the residential and commercial land supply. The absorption of about 11 percent of the market factor surplus land supply for institutional uses would have a relatively modest effect on the amount of surplus land available to respond to other market considerations, leaving a substantial surplus to account for land that will not be developed or not developed to its full capacity as a result of choices made by the owner. In summary, the potential demand for land to support additional institutional uses not currently established in Eastsound can be satisfied by the residential and commercial market factor surplus land supply built into the land supply analysis for these two real estate market sectors.

Finally, in all of the assumptions and calculations of institutional demand and land supply set out above, staff has been careful to adopt a conservative approach. Given the range of uses classified as institutional and the variety of potential locations for these uses as identified in Table 2 both inside and outside the UGA, staff has concluded that a sufficient supply of land exists over the planning period to provide for the reasonable expansion of existing institutional uses and to provide sites for a reasonable number of new institutional uses without affecting the supply of land for residential and commercial uses and without changing the boundaries of the Eastsound UGA as adopted by the County in 2005.

Table 1  
Institutional Land Use

Use	Current Lot Cov. <sup>1</sup>	Land Use District	Max Lot Cov per LU District	Allowable Lot. Cov. Remaining	Lot Cov. Remaining as % of Current
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<sup>3</sup> Because of its size in relationship to the other institutional land uses, including data for the school would significantly skew the results of any calculations that measures the central tendency, such as the mean or median, or variation within the population of institutional building areas or lot sizes. For this reason, data for the school is not included in these calculations. For essentially the same reason the county dock site, which has no building, is not included in the calculations or in Table 1 although it is included in Table B-1 to identify that the facility exists.

Orcas Center	11%	Village Residential	30%	19%	>100%
Village Green	2%	Village Commercial	65%	63%	>100%
Senior Center	11%	Village Residential	30%	19%	>100%
Historical Museum	19%	Village Commercial	65%	46%	>100%
Library	12%	Village Commercial	65%	53%	>100%
Public Works/Sheriff	4%	Service & Light Ind.	60%	56%	>100%
Fire Station	9%	Village Residential	30%	21%	>100%
Jehovah's Witnesses Hall	6%	Village Residential	30%	24%	>100%
Episcopal Church	13%	Village Commercial	65%	52%	>100%
Catholic Church	3%	Village Residential	30%	27%	>100%
Community Church	5%	Village Commercial	65%	60%	>100%
Eagle Rock Church	15%	Village Commercial	65%	50%	>100%
Public School <sup>2</sup>	26%	Village Residential	30%	4%	See Note 2
Christian School	6%	Village Residential	30%	24%	>100%
Montessori School	10%	Eastsound Residential	30%	20%	>100%
Children's House School	8%	Village Residential	30%	22%	>100%
Salmonberry School	6%	Village Residential	30%	24%	>100%

**Notes Table 1:**

<sup>1</sup> Percentages are based on existing building footprint lot coverage.

<sup>2</sup> Orcas School District owns approximately 37 acres of adjacent property including the 9 acre school building parcel, the adjoining 10 acre athletic field parcel to the north and the adjoining 17 acre Buck Park parcel to the east. The figures shown here are for the 9-acre school building parcel only. The athletic field parcel has additional space for building development if needed in the future. However since the school owns all three parcels, the school building parcel could be developed at greater than 30 percent building coverage provided the lot coverage by buildings on the entire contiguous school property did not exceed 30 percent.

**2. Non Urban Density Parcels:**

The 2005 Eastsound UGA included a number of parcels that were zoned at less than urban densities. The GMHB's June 2006 FDO, found that the inclusion of 16 lots zoned with a density of 1 unit per acre alongside 91 lots zoned with a density of 2 units per acre, "may be 'characterized by urban growth' for the purposes of establishing UGA boundaries." (FDO,2006, p.19) The FDO, however, further noted that the inclusion of existing urban growth is not the same thing as planning for future urban densities.

Creating a non-municipal UGA is a major undertaking for a county with limited resources. One of the greatest challenges is, and has been, working around and through the patterns of the existing land divisions and patterns of historical development. While this is true in any county attempting to create a non-municipal UGA, it is a particularly pointed in San Juan County because of the relatively recent, within the past 25 years or so, dramatic change in the economic structure and profile of the island, from one that focused on natural resource exploitation to an economic structure hinged upon tourism and house construction and the corresponding, much slower, alterations in the pattern of land division and ownership.

	#lots	Total Acreage	Average Lot	Out of Shoreline	In Shoreline	Non urban %	% of UGA
1/acre	16	19.45	1.2 acres	0	19.45	100%	2.6%
2/acre	91	49.52	.54 acres	Approx 32.4 acres	17.12	35%	2%

Pursuant to this, the 2006 FDO further held that the county had to detail the local circumstances that led to the inclusion of lots in the UGA at less than urban densities. Ordinance 13-2005 states;

"A density bonus for affordable housing can be done to the maximum duration allowed by law to achieve at least 6 units per acre of affordable housing for moderate income or up to 8 units per acre for low income wherever land use density is 4 units per acre or less with the Eastsound Urban Growth Area exclusive of those parcels within 200 ft of the shoreline, defined critical areas, or that otherwise contain physical characteristics making them unsuitable for urban level development."

This clause obviates concerns for the non shoreline parcels which make up the majority of the 2 unit per acre zone (60 complete lots) and a further 6 lots whose territory is approximately half in the shoreline area and half out of it. The remaining lots within the shoreline area that are zoned as 2 units per acre are located on substandard soils that are immediately adjacent to the Puget Sound. The soils in the majority of the area in question consist of Roche stony loam with 8 to 15 percent slopes, (RsC), Pickett-Rock outcrop complex with up to 30 percent slopes (PrD), and Neptune gravelly sandy loam, (Ng). With the exception of PrD soils, these soil types are slow to drain and the continuing presence of the septic drainfields in these areas poses an environmental threat to the Puget Sound. The nature of island water

basins is that the underground flows are consistently moving from the center out towards the edges which means that the subsurface water on the shoreline lots in particular has both less distance to travel to the waters edge and has a greater chance to be depositing contaminants into the waters of Eastsound. As the water table levels in Ng areas are largely determined by the tide, septic systems in this area pose an even greater than normal threat to the environmental integrity of the sound. Given these direct threats to the ecology of the shoreline, inclusion of these parcels in the UGA, their eventual connection to the sewer and water systems, is necessary for to enhance the protection of the delicate shoreline ecology.

The northwestern parcels zoned as 1 unit per acre (Please see Exhibit 1 which shows environmental hazards, wetlands and flood zones that affect all of these parcels.) fall almost entirely within the shoreline and all have existing structures upon them. Many of these parcels back onto a large wetland area. The prevalent soils in this area are Semiahmoo muck (Sm and Ss), Neptune gravelly sandy loam, (Ng), Bow silt loam, (BoA) and Coastal beaches, (Cb). The Sm and Ss areas form and underpin the extensive wetland in the area while BoA land is upland from the Ng and Cb formations. As with the shoreline lots on the opposite side of the isthmus all of these soils are inappropriate for septic tank drainage fields (albeit in the case of Cb and Ng soils for reasons that are diametrically opposed to that of the others). The Sm, Ss and BoA areas are marked by very low drainage rates and, often, the presence of impermeable layers within 12 inches from the surface. Ng and Cb areas drain very quickly, however, as the water table in both is determined by the tide what this amounts to is the inundation of the area by the ocean and the subsequent rapid movement of contaminants into the Puget Sound.

The connection of these parcels to the central sewer system during the planning period will minimize the negative environmental impacts of this area of long standing shoreline development.

The direct environmental effect of allowing septage to drain into the Sound is the continuous addition of pathogens to the marine environment. These pathogens can have a number of different deleterious effects on the shoreline. First and foremost is the contamination of the shell fish present, (All along the coastal Puget Sound, aquacultural operations have been shut down due to precisely this kind of contamination which constitutes a tremendous economic loss to the state); Secondly, is the depletion of dissolved oxygen in specific locales due to the detritus following algae blooms, the areas of depleted oxygen create 'dead zones'; Thirdly is the impact of these pathogens on Eel Grass beds, algae caused and fed by the contaminants often lodges itself on the eel grass 'leaves' which, in turn deprives it of light and ultimately kills the plant, further reducing the this vital shoreline aquatic environmental enhancement.

In addition to the environmental imperatives to ensure sewer and water services to the lots with sub-urban zoning, there are further specific reasons to limit further development on those lots that are either fully or partially within the shoreline and are thus excluded from the affordable housing density bonus provision of Ordinance 13-2005.

The parcels zoned 1 unit per acre in the northwest quadrant of the Eastsound UGA fall almost entirely within both FEMA and CZA identified flood zones, a local characteristic that makes them unsuitable for increased density. In addition to falling within an identified flood zone, these parcels are also within an historic/culturally significant area as identified by the Department of Archaeology and Historic Preservation as site # SJ 00438. While construction within flood zones and archaeologically significant areas is not prohibited outright by local development regulations, the county holds that increasing the density of these parcels raises concerns regarding the county's duty to maintain the integrity of the historical site and wisdom of allowing further development with a potentially hazardous area.

A similar argument can be adduced for the approximately 3 acres zoned 2 units per acre on the Southeast side of Madrona point as the entire area is inside both FEMA and CZA flood zones and within the area assigned to archaeological site # SJ 00240.

Of the original 91 lots that were given the sub-urban density of the 2 units per acre, there are only 15 lots that are inside the shoreline, thereby unable to use the density bonus afforded the others but outside of either flood zone or archaeological site areas. These lots have, in places, steep slopes which, when combined with the existing Shoreline Management Plan's residential development regulations requiring a minimum 50ft setback, with a preference for a 100 ft setback from the OHWM makes it almost impossible to construct more than one unit.

## **ANALYSIS:**

The GMHB's June 2006, FDO states that the "County's 'failure to show its work' for commercial and institutional needs" did not comply with RCW 36.70A.110 (2) and RCW. 36.70A.115. The FDO also holds that the "Zoning areas with the UGA at less than urban densities...does not comply with RCW 36.70A. 020, (1) and (2) and RCW 36.70A. 110 (1)."

RCW 36.70A.110 (2) details the responsibility of the local administration to create a UGA that is sufficient to permit the urban growth projected to occur in the county for the planning period premised upon the population projections of the Office of Financial Management. RCW 36.70A.115 details the requirement that the county must show the "adoption of and amendments to their comprehensive plans and/or development regulations provide sufficient capacity of land suitable for development within their jurisdictions to accommodate their allocated housing and employment growth".

Staff holds the above report meets the requirements of the GMHB and the GMA by carefully detailing the analytical premises of the land use projections in each of the land use categories, Commercial, Institutional and Residential, and furthermore, the county has shown that there is sufficient land within the UGA to meet current and future demand.

RCW 36.70A.020 is the goals section of the GMA which states;

2. Urban growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
3. Reduce sprawl. Reduce the inappropriate conversion of undeveloped land into sprawling, low density development.

RCW 36.70A. 110 (1) is the section of the GMA which holds that counties planning under the GMA must “designate an urban growth area or areas within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature.”

Staff holds that there are specific reasons detailed above, such as their location in flood zones and areas of archeological interest, that militate against upzoning the UGA parcels with less than urban densities. Upon the adoption of the ESSWD’s capital improvement plan, the county will be able to show that there will be service provision to currently unserved lots and therefore will no longer be out of compliance with those sections of the GMA detailed above.

## **CONCLUSION:**

The county has met the WWGMHB requirement to ‘show it’s work’ regarding the land supply. In addition, the county has shown there is sufficient land within the Eastsound UGA to meet the projected demand for residential, commercial and institutional land uses. Furthermore, there are sufficient environmental reasons to maintain the less than urban density zoning for the affected shoreline parcels.

## ***Appendix A***

### **Eastsound Urban Growth Area**

#### **2007 Land Supply Analysis**

Village Commercial District Building Square Footage Evaluation, Calculation of 2005 Floor Area Ratio (FAR) and Available Lands Analysis.

Aerial photo information obtained from a 2004 DNR Flight covering Eastsound was used to establish the presence and the location of buildings on individual parcels within the Village Commercial district. County tax records were used to estimate building square footages. If no square footage information was on file, estimates were made using aerial photo information. Assessor's records and field work was used to identify the use of a particular building. Electronic versions of the Assessor's tax parcel maps and parcel database were used to obtain information about the size and shape of individual parcels. The following rules were applied in the evaluation. The rules were developed to be conservative in their application.

- If all or part of a structure was used for commercial purposes the square footage of the entire structure was designated commercial. This included single-family residences that included a business as part of the residence. The application of this rule was expected to result in a slight over estimation of the amount of commercial square footage, which would result in a somewhat higher estimate for the demand index number. A higher demand index number would ultimately result in a more conservative estimate of the supply of land needed to meet the demand.
- Land parcels devoted entirely to parking with no structures were considered fully developed and therefore were not included as potentially developable land. And, since no structures were present they did not figure into the demand index. The application of this rule has the effect of reducing the availability of potentially developable land, which would ultimately result in a more conservative estimate of the amount of land available for commercial development in the Village Commercial district of Eastsound.
- Parcels developed with non-commercial structures including houses (but not mobile homes), churches, the library, the museum etc was not included in the land available for commercial development and the square footage of the structures were not used in the calculation of the demand index. The application of this rule had the effect of reducing the amount of land available for commercial development even though allowed by the underlying zoning.
- Parcels developed with a mobile home were identified as having commercial development potential (CDP) and included in the supply of land available for commercial uses. Because the value of a mobile home is typically less than that of

a constructed home and because a mobile home can be more easily removed and relocated, the property has a can be more readily acquired for commercial purposes than similar property developed with a constructed single-family residence. The square footage of the mobile home was not included in the calculation of the demand index. The application of this rule had the effect of increasing the amount of land available for commercial development in the Village Commercial district.

- The U.S. Post Office in Eastsound is located in leased space in a privately owned commercial building and is therefore being treated as a commercial use rather than an institutional use for the purpose of this analysis. The post office space was included as existing commercial space and figured in the calculation of the demand index described below.
- Parcels developed with commercial uses were considered to have commercial development potential (CDP) if the Floor Area Ratio (FAR) of the existing commercial development was less than the existing average FAR for commercial development in the Village Commercial District. The FAR average was determined to be 0.27. For commercial development with an FAR of less than 0.27, the CDP was the difference between the floor area of the existing buildings on the parcel and the floor area value that would have resulted by applying a FAR of 0.27 to the same parcel.
- Unused or underutilized space within an existing commercial structure was not considered. The analysis assumes that all commercial uses are operating at the capacity of their commercial space and that as the population grows the amount of floor area required for a particular business will also need to increase. The application of this rule will result in a somewhat overstated and therefore conservative need for additional commercial space. It is possible that some businesses have unused and/or underutilized space in their existing buildings sufficient that no additional building floor area would need to be added for that business over the planning period.

Applying the above rules it was determined that the Village Commercial district included a total of 118 parcels and about 51 acres of land. A total of 57 commercial structures were identified. The structures were located on a total of 52 separate tax parcels. The 57 commercial structures contained a total of about 243,194 square feet of floor area. The 52 parcels included a total of about 24.1 acres of land or 1,050,953 square feet (Table A-1). The average density of commercial development on these 52 parcels as measured by Floor Area Ratio<sup>4</sup> (FAR) was 0.27. Map B, Map E and Table A-1 provide more detailed information about this calculation.

The 118 parcels on the Village Commercial district were evaluated for Commercial Development Potential (CDP). A total 15 vacant parcels with a combined acreage of 4.18

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<sup>4</sup> Floor area ratio (FAR) is a common means for measuring the relative density of commercial development. Floor Area Ratio is the ratio of square footage of building floor area to the square footage of the area of the underlying site. FAR is not that same as building lot coverage. The floor area figure used to compute the FAR is the total floor area of all the floors of a building. A two-story building with total of 1,000 square feet of floor area, 500 square feet per floor, located on a 5,000 square foot lot has a floor area ratio 1 to 5 or 0.20 expressed as a decimal fraction. However, the building only covers 500 square feet of the lot for a lot coverage ratio of 1 to 10 or 10 percent. In comparing FAR's, the development with the larger FAR is the higher density development regardless of lot coverage by buildings.

acres of commercial development potential were identified and a total of 35 underdeveloped commercial and mobile home parcels were identified with a combined total of about 12.0 acres of commercial development potential. Total overall land supply is therefore 16.18 acres.

Table A-3 provides lot area and CDP information for the vacant parcels and Map E identifies these parcels by Assessor's parcel number. Table A-2 provides information on lot size, existing building area, existing FAR and CDP for each of the 28 underdeveloped commercial parcels. Map C shows their location and Map E provides Assessor's parcel numbers for all the 52 parcels (including the 28 underdeveloped parcels) developed or partially developed with commercial uses.

