

BACKGROUND

The methods that will be used to conduct the buildable lands analysis should be consistent with the abilities of different cities to provide the type of information needed for such analysis. Thus, ECONorthwest collected information about available data, data-collection systems, and staff resources from local jurisdictions required to participate in the Buildable Lands Program. ECO and the Technical Advisory Committee used the results of this research to refine the proposed methods for the buildable lands analysis.

This appendix addresses two categories of questions: (1) What data do local governments have for addressing land demand and supply issues, and (2) Do local governments have any special needs—i.e. beyond those met by complying with state requirements—for land demand or supply information? Examples of data that go beyond the strict requirements of the state law include long-term maintenance of land monitoring systems, tracking development "in the pipeline," and dealing with annexations.

The research conducted by ECO that consisted of the following elements:

- Meetings with the TAC,
- A buildable lands program questionnaire administered to all 20 incorporated cities in Snohomish County by ECO,
- Two work sessions with jurisdictions to discuss survey results,
- Review of a survey of services providers administered by Snohomish County staff.

A summary of findings as they relate to the design of the buildable lands work program follows. At the end of this appendix are the results of the survey for those who want more detail.

FINDINGS

Two workshops were held with cities on April 11, 2000, in Snohomish County Planning and Development Services offices in Everett. The morning meeting was attended by Southwest Snohomish County cities (Bothell, Edmonds, Everett, Mukilteo, Brier, Mountlake Terrace) and County staff. The afternoon meeting was attended by staff from the cities of Lake Stevens, Marysville, Stanwood and Gold Bar, plus the County.

The workshops enabled Snohomish County and ECONorthwest to gain a better understanding of the technical and staffing capabilities of local jurisdictions. The workshops consisted of an overview of the Snohomish

County Buildable Lands project and progress summary, preliminary results of the jurisdictional land use database survey, a discussion of issues raised by these results and other technical and logistical concerns the city representatives had about completing the project.

In general, cities supported the structure of the methods presented, which can be summarized as the following tasks:

1. Start-up
 - a. Definitions
 - b. Procedures
2. Standardization of land use / zone designations (making a bridge between individual city categories and definitions, and some common, County-wide definition of land use by type and density)
3. Preliminary buildable land maps for cities to review, developed by the County using:
 - a. Assessment data
 - b. Other County data layers
 - c. Aerial photographs
4. City review and correction of maps (through any combination of GIS, other data sources, aerials, or field checking)
5. County digitizing of vacant and redevelopable land
6. Final review by cities
7. Consolidated analysis and reporting (draft and final report)

Other technical points were discussed that have been incorporated into the proposed methods. These points included:

- Cities with GIS capabilities will correct draft maps digitally using GIS; smaller cities will use aerial photographs and field work.
- The TAC should probably continue to convene as part of the implementation of the buildable lands analysis so that the project can capitalize on the knowledge its members have gained thus far.
- The presentation of parcel-based maps showing various GIS data layers to the public is an issue that needs to be managed carefully. The County and cities must carefully plan to present the data in a such a way that the public can comment and provide valuable input at a level of detail useful for the project objectives.
- Regarding treatment of projects in the development pipeline, the cut-off point between vacant tract land and vacant platted land should be final plat approval; the cut-off point between vacant land and developed land should be a building permit.

Survey Summary

This section summarizes the results of the *GMA Buildable Lands Program Survey* administered to the 20 cities that must participate in the buildable lands program, and Snohomish County. The beginning of this section reports the response rate of the survey, and the rest of this section follows the structure of the survey to summarize the responses. The survey questions from which points in this summary are drawn are referenced parenthetically in this fashion: (*See Question 1*). The survey is reprinted at the end of this appendix.

HOW MANY CITIES HAVE RESPONDED TO THE SURVEY?

Table C-1 shows the jurisdictions included in the Buildable Lands program, the population of cities included in the Program, and the jurisdictions that responded to the survey. Table C-1 shows which cities are included in the "Large Cities" and "Small Cities" categories; these categories are used to summarize results in this Appendix.

Table C-1. Jurisdictions responding to the survey

City	1998 Population	Responded to survey?
Snohomish County		Yes
Large Cities	255,352	
Everett	84,330	Yes
Edmonds	38,610	Yes
Lynnwood	33,110	Yes
Mountlake Terrace	20,360	Yes
Marysville	19,740	Yes
Mukilteo	16,810	Yes
Bothell (part in Snoh. Co.)	12,850	Yes
Mill Creek	10,692	Yes
Monroe	10,690	
Snohomish	8,160	
Small Cities	30,707	
Arlington	6,635	Yes
Brier	6,295	Yes
Lake Stevens	5,740	Yes
Stanwood	3,130	Yes
Sultan	2,885	Yes
Granite Falls	1,985	
Gold Bar	1,672	Yes
Darrington	1,235	Yes
Woodway	990	Yes
Index	140	
Total population in surveyed cities:		286,059

As of May 3, Snohomish County and 16 out of 20 cities had responded to the survey. Cities that have responded to the survey to date compose over 90% of total population for the cities included in this study.

LAND USE DATABASE

HOW MANY JURISDICTIONS HAVE AN INVENTORY OF EXISTING LAND USE?

The following jurisdictions indicated they have an inventory of existing land use:

- Snohomish County.
- All communities: 11 of 16 respondents.
- Large communities: 8 of 8 respondents.
- Small communities: 3 of 8 respondents.

(See Question 1)

WHAT FORMAT IS THE LAND INVENTORY IN?

Snohomish County is currently developing a countywide inventory in ArcInfo/ArcView as part of their GIS development program. This inventory will be updated almost continuously.

- Five large cities have an inventory in GIS format, all in ArcView except one in MapInfo.
- Two large cities have inventory data or maps in other electronic formats: Dbase and CAD.
- The remaining four cities with an inventory have it on paper only.

(See Questions 2–3.)

WHEN WERE THE INVENTORIES LAST UPDATED?

Snohomish County is developing a GIS inventory that will be updated according to the assessor's update cycle, more or less continuously. Among cities:

- Five inventories were updated in 1999 or 2000.
- Four inventories were updated in 1995 or 1996.
- Two inventories were updated in 1992.

The City of Everett indicated they need to update their inventory, which was last updated in 1992. Three cities indicated they update their inventory every five years; one updates every 3–5 years; one updates every 2–3 years, and the four cities update infrequently or as needed.

(See Questions 4–5)

WHAT IS THE SOURCE OF LAND INVENTORY DATA, AND WHAT ATTRIBUTES ARE ASSOCIATED WITH THE DATA?

Nine jurisdictions indicate that assessor land use codes are the source for their land use inventory, with all but one of these jurisdictions also using aerial photographs, field verification, building permits, or other methods to augment assessor data. Two cities indicated they get assessor codes from MetroScan, a private vendor of assessment data, and Mill Creek does not augment this with data from other sources. Two cities, Mukilteo and Woodway, do not use assessor codes as a source of data for their land use inventory—the inventories in these cities are based on aerial photos, field verification, and other sources.

All jurisdictions with inventories have them at the tax lot (parcel) level, except Mukilteo which has inventory data at the block/zoning district level.

(See Questions 6–7)

Table C-2 shows attributes associated with land inventories in cities that responded to the survey question. In general, large cities track more attributes than small cities.

Table C-2. Attributes associated with land inventory data

Attribute	Cities tracking attribute		
	All	Large	Small
Existing land use	10	8	2
Comp plan designation	7	6	1
Existing zoning	9	7	2
Lot area	8	6	2
Owner name	7	4	3
Public ownership	6	4	2
Land value	7	6	1
Improvement value	4	4	0
Land classification	5	4	1
Number of buildings	5	5	0
Number of housing units	5	5	0
Size of improvements	5	4	1
Year structure(s) built	5	4	1
Site addresses	7	5	2
Public services	3	2	1
Other	1	1	0

(See Question 8)

CAN CITIES GENERATE REPORTS THAT COMBINE OR RELATE PARCEL ATTRIBUTES?

Six large cities and Snohomish County indicated they have the system and staff to generate reports that combine or relate parcel attributes. Two cities indicated that available staff time is limited by a large number of projects, and one city indicated their staff are relatively inexperienced with

this type of analysis. Other cities indicated they did not have this capability or did not answer the question.

(See Questions 9–10)

DO CITIES HAVE MAPS OF WATER AND SEWER FACILITIES?

Water and Sewer Facilities are mapped on paper in 10 out of 14 responding cities. Snohomish County and six cities have Water and Sewer Facilities mapped in a GIS later, and the City of Marysville is currently working on GIS mapping of these elements. Lake Stevens has Sewer but not Water Facilities mapped as a GIS layer. Snohomish County and the City of Everett are the only jurisdictions that include Water and Sewer Facilities as a tax lot attribute.

Two cities indicated Water or Sewer Facilities are mapped in CAD. Two cities indicated they have separate water districts (Mukilteo and Lake Stevens) and one has a separate sewer district (Mukilteo).

(See Question 11)

A recent survey of water and sewer districts by Snohomish County indicated that most districts have maps and many are using CAD programs to generate maps.

DEVELOPMENT HISTORY AND POLICIES

This series of survey questions asked about how jurisdictions track development, and the types of policies adopted in response to the GMA buildable lands program requirements.

HOW MANY COMPREHENSIVE PLANS INCLUDE RESIDENTIAL DENSITY TARGETS?

Snohomish County has adopted a target density of 4 units per net residential acre for unincorporated portions of UGAs. Seven cities indicated they have not adopted target densities. Of the 7 cities that indicated they have adopted target densities,

- three adopted target densities for lands within their city limit,
- five adopted target densities for lands within their city limit and unincorporated UGA,
- three adopted target densities for each plan designation and/or zoning district, and
- one adopted an overall city-wide target density only.

Two cities use net density targets, and four use gross density targets; no city uses both.

(See Question 12)

Only 2 of 13 responding cities require minimum density standards for new development.

(See Question 13)

HOW MANY CITIES HAVE A ZONING CODE THAT ALLOWS MIXED-USE DEVELOPMENT?

Twelve of fourteen cities responding have a zoning code that allows mixed-use development.

(See Question 14)

HOW MANY CITIES HAVE REVISED THEIR GMA COMPREHENSIVE PLAN OR ZONING SINCE JANUARY 1, 1995 IN A WAY THAT IMPACTS ALLOWABLE DENSITIES?

Seven out of thirteen responding cities indicated they have revised their GMA comprehensive plan or zoning code in a way that impacts allowable densities. Comments indicate that in four of these cities changes were made that would increase allowed density.

Snohomish County reported amendments to the County's Planned Residential Development (PRD) code that went into effect September 1995 have generally increased allowable yields. The City of Lake Stevens reports that PRD regulations increased the percentage of land to be dedicated to public use and increased minimum lot areas, and these changes may make it more difficult to achieve maximum allowable density, even though allowable density has not changed.

The City of Stanwood indicated that they passed an ordinance that increased minimum lot size for Planned Residential Units to 10,000 sq. ft., thereby allowing them only in the City's lowest density zone (SR-12.4).

(See Question 15)

HOW MANY JURISDICTIONS TRACK INDICATORS OF DEVELOPMENT?

Table C-3 shows development indicators tracked by jurisdictions including Snohomish County. This table shows most jurisdictions track or partially track the indicators listed in Table C-3, and most jurisdictions track them manually or with a combination of manual and electronic means.

Table C-3. Development indicators tracked by jurisdictions

Indicator	Tracked?			System		
	Yes	No	Part.	Manual	Elect.	Combo
Total new housing units	11	0	5	9	1	6
Total acres of new residential development	10	2	4	7	2	5
Number of lots platted	13	0	3	9	3	3
Gross acreage of land for new residential lots	11	2	3	9	2	3
Gross acreage of land for new multi-family residential development	10	4	2	8	1	3
Net acreage of land for new residential lots	10	2	4	10	1	3
Net acreage of land for new multi-family residential development	8	5	3	8	0	3
Acres of land developed for new employment uses	10	4	2	9	0	3
Floor area of new commercial and industrial uses developed for employment	10	4	2	7	2	3
Floor area of new residential uses in mixed-use developments	7	4	4	7	1	3

Note: data includes Snohomish County.

(See Question 17)

HOW MANY CITIES HAVE HOUSING INVENTORIES THAT TRACK HOUSING BY TYPE OUTSIDE OF THEIR CITY LIMITS?

Of the 16 cities that responded,

- six have inventory for the City Limits only,
- three have an inventory for the City Limits and unincorporated UGA, and
- seven do not have a housing inventory.

In addition, Snohomish County has an inventory for each unincorporated UGA.

Nine cities indicated the sources of their housing inventory:

- four use occupancy permits to build on Census data, and two cities (Mukilteo and Sultan) use this method exclusively,
- two cities use assessment data in conjunction with other sources,
- three use windshield surveys to augment data from other sources,

- three cities conduct a local survey, and one (Woodway) uses this method exclusively (based on building permit data), and
- four cities indicated other sources for their inventory, including aerial photos, MetroScan (a private vendor of assessor data), and OFM annual estimates of population. The City of Mill Creek uses MetroScan exclusively for their housing inventory.

Seven of the city inventories were last updated in 1999–2000, and two were updated in 1995–1996.

(See Question 18)

DO ANY CITIES TRACK UNOCCUPIED OR UNDER-UTILIZED BUILDINGS THAT COULD BE USED FOR FUTURE EMPLOYMENT SPACE NEEDS?

No.

(See Question 19)

DO JURISDICTIONS TRACK NUMBER OF EMPLOYEES IN EXISTING STRUCTURES?

Snohomish County estimates the number of employees in existing structures based on regional employment data. Three of 15 responding cities track this information from business license data. The Puget Sound Regional Council, however, has an employment database that assigns employment to street addresses. The data are relatively accurate at larger geographic levels, but may not be accurate for individual locations.

(See Question 20)

WHAT TYPE OF PERMIT INFORMATION IS TRACKED BY JURISDICTIONS, AND WHAT SYSTEM DO THEY USE?

Table C-4 shows permit information tracked by jurisdictions in Snohomish County, including the County itself. This table shows most responding jurisdictions track most of the listed permit types, and most of this information is tracked on paper systems. Several cities indicated they are using Sierra or Permit Plan software to track permit data. Only Snohomish County tracks any building permit information on GIS.

The City of Lake Stevens indicated that getting most of their permit information would require researching original paper files.

Table C-4. Permit information tracked by jurisdictions

Permit Type	Track permit type	Track data to 1995	Track date of submittal	Tracking System		
				Paper	Elect.	GIS
Building permits issued by type	17	14	14	12	10	1
Approved site plans for multi-family, commercial, and industrial development	12	11	11	11	4	0
Final subdivision approvals	17	14	16	12	7	0
Final short subdivision approvals	17	14	15	12	7	0
Pending subdivisions and short subdivisions under review	17	11	17	12	7	0
Pending multi-family, commercial, and industrial building permits	13	9	13	10	5	0
Certificates of occupancy issued by type	13	11	10	10	4	0

Note: Data includes Snohomish County. Jurisdictions could mark more than one permit type and tracking systems.

(See Question 21)

BUILDABLE LANDS INVENTORY

This section of the survey asked about buildable lands information maintained by jurisdictions that could help satisfy some of the GMA buildable lands inventory requirements.

HOW MANY JURISDICTIONS HAVE COMPLETED A LAND CAPACITY ANALYSIS OR BUILDABLE LANDS INVENTORY?

Snohomish County and 10 cities indicated they have completed a land capacity analysis or buildable lands inventory. Three out of four cities that have not completed a capacity analysis or inventory are small cities.

Four cities have recently updated or are currently updating their land capacity analysis or buildable lands inventory.

Snohomish County and six cities last updated their land capacity analysis or buildable lands inventory in 1994–1996.

Nine cities maintain this information on paper. Two cities have this information in a spreadsheet (Marysville and Bothell). The City of Sultan indicated they have this information in GIS. Snohomish County has this information in GIS and database formats.

(See Question 22)

WHICH LAND CLASSIFICATIONS WERE USED IN THE LAND CAPACITY ANALYSIS OR BUILDABLE LANDS INVENTORY?

The following classifications are used in jurisdictions' land capacity analysis or buildable lands inventory:

- Vacant land: 11
- Under-utilized/underdeveloped: 6
- Redevelopable: 3
- Partially used: 3
- Undevelopable (constrained): 6

Jurisdictions could mark more than one classification, and the respondents include Snohomish County.

(See Question 23)

HOW MANY JURISDICTIONS USED A "MARKET AVAILABILITY" ASSUMPTION IN THEIR LAND CAPACITY ANALYSIS OR BUILDABLE LANDS INVENTORY.

Three cities and Snohomish County. Each of these jurisdictions returned some kind of documentation of the assumptions used with their survey response.

(See Question 24)

WHAT TYPE OF BUILDABLE LANDS ANALYSIS HAS BEEN COMPLETED BY JURISDICTIONS?

Table C-5 shows the types of analyses completed by jurisdictions, including Snohomish County. This table indicates that, to the extent the analyses have been completed, they are primarily consistent with GMA requirements.

Table C-5. Analyses completed by jurisdictions

Analysis	City Limit		UGA	
	C	P	C	P
Forecasts				
Population	9	1	7	2
Employment	6	1	5	2
Land Need Analysis				
Housing needs	4	0	4	1
Employment land needs	4	0	4	1
Public facility needs	3	0	3	0
Buildable Land Inventory				
Residential	5	1	4	1
Employment	4	0	4	1
Public/Other	4	1	3	1
Land Capacity Analysis				
Residential	8	0	6	1
Employment	6	0	6	1
Public/Other	7	0	5	1

Note: C=consistent with GMA requirements; P = partially meets GMA requirements. Data includes Snohomish County.

(See Question 25)

WHAT TYPES OF ENVIRONMENTAL/CRITICAL AREA CONSTRAINTS WERE EVALUATED BY JURISDICTIONS IN PREVIOUS LAND CAPACITY ANALYSES OR BUILDABLE LANDS INVENTORIES?

Table C-6 shows environmental and critical area constraints tracked by jurisdictions in Snohomish County. This table shows that most responding jurisdictions track wetlands, frequently flooded areas, geologic hazards, and riparian areas; few jurisdictions track other constraints. All of the jurisdictions that responded indicated they used general deduction to estimate constraints.

Table C-6. Types of environmental/critical area constraints included in previous land capacity analyses

Constraint Type	Included	Deduction Type		
		None	General	Site Specific
Wetlands	9		6	
Frequently flooded areas	6		3	
Geologic hazards/steep slopes	9		5	
Riparian zones or corridors	7		5	
Aquifer recharge areas	2			
Fish and wildlife habitat conservation areas	2		1	
Contaminated sites	1			
Other environmental constraints	1			

Note: Data includes Snohomish County.

(See Question 26)

WHAT TYPES OF PUBLIC LAND USES WERE INCLUDED IN JURISDICTIONS' LAND CAPACITY ANALYSES?

Table C-7 shows the types of public land uses included in jurisdictions' land capacity analyses.

Table C-7. Types of public land uses included in land capacity analyses

Land Use Type	Included
Parks/open space	8
Schools	5
Municipal offices	5
Right-of-way	5
Police/Fire facilities	5
Stormwater drainage/detention	3
Water storage	4
Wastewater treatment	4
Landfills or transfer stations	2
Power line right-of-ways	4
Roads	6
Airport clear zones	1
Greenbelt	1
Other	0

Note: Data includes Snohomish County.

(See Question 27)

CONCLUSIONS

The survey results provide insights on how some of the details of the methods might be addressed. The survey results show, as expected, that larger jurisdictions tend to have more data and better-tracking systems than

smaller jurisdictions. The results also identify areas where additional work is needed:

- Many jurisdictions are not using GIS for their buildable land inventories.
- Many jurisdictions have inventories that will need to be updated as a part of this process.
- Nearly half the responding jurisdictions have not set density targets.
- None of the responding jurisdictions track vacant or under-utilized buildings that could be used to meet future employment space needs.
- Most of the responding jurisdictions are tracking development indicators and building permits, but most of this information is on paper.
- The majority of responding jurisdictions have not completed a land capacity analysis or buildable lands inventory.

There are no issues where all jurisdictions have equivalent data—in other words, the results confirm ECO's hypothesis that there would probably be not a single data item where a single method would apply to all jurisdictions. This finding supports the recommendation that the County develop a common framework and definitions for data collection, but allow jurisdictions different methods and levels of detail and accuracy, depending on local conditions.

The survey identified several issues critical to development of the buildable lands program, including:

- Only 8 of 16 responding cities have the staff and capability to produce reports that combine or relate parcel attributes. Two of these cities indicated that staff time is limited by other projects, and one indicated their staff is relatively inexperienced with this kind of analysis.
- Most cities are tracking building permit activity, but few are associating those with a tax lot or other location identifier. The geographic coding of building permit data is important to identify the location of specific types of development approvals, and to update an inventory of buildable land.
- Few cities are tracking the number of employees in existing buildings. This information will be needed to estimate the future demand for commercial land based on employment forecasts.
- Few cities appear to have addressed the issue of maintaining the buildable lands inventory with information on the development pipeline and serviceability of land.

GMA BUILDABLE LANDS PROGRAM SURVEY MARCH 2000

BACKGROUND

Amendments to the Growth Management Act (GMA) in 1997 require Snohomish County and its cities to collect data on buildable lands and analyze how planning goals are being achieved. The amendments, often referred to as the Buildable Lands Program, require local governments to monitor the amount and density of residential, commercial and industrial development that has occurred since adoption of a jurisdiction's GMA comprehensive plan. Using this information, an evaluation of the adequacy of the remaining suitable residential, commercial and industrial land supply within urban growth areas (UGAs) to accommodate projected growth at development densities observed since the adoption of GMA plans is required every five years. If the results of the 5-year buildable lands evaluation reveal deficiencies in buildable land supply within UGAs, then the county and the cities are required first to adopt and implement reasonable measures that will remedy the buildable land supply shortfall without adjusting UGA boundaries.

In December 1999, Snohomish County contracted with ECONorthwest to prepare a report that would describe methods to be used by the County and its cities in meeting state requirements for a buildable lands analysis. The scope in this project covers only the first step of a larger project: determining and getting agreement on methods to be used by jurisdictions to collect, analyze, and present information about land supply and demand. It will result in a written description of protocols for data collection and analysis, but not in the databases or analyses themselves, which will be developed after this report is completed.

WHY THIS QUESTIONNAIRE?

This questionnaire is intended to gather information from jurisdictions required to participate in the Buildable Lands Program and will be used by ECO and the Technical Advisory Committee to develop methods that meet the GMA requirements and are consistent with local resources. In particular, it will form the basis for an evaluation of local resources and desires, which, in turn, will influence the methods recommended.

The questionnaire is organized in three sections: (1) existing land use databases, (2) development history and policies, and (3) buildable lands inventories. The following information will be useful in completing the questionnaire: comprehensive plan and zoning designations, buildable lands inventory (including data dictionaries), permit tracking systems, and any technical reports you produced to accompany the adoption of your GMA comprehensive plan (e.g., housing and employment needs assessments, etc). Please attach any documents requested or that you think will be helpful in developing the buildable lands methods. For extended comments on any question, attach a separate sheet keyed the question number.

Please complete the questionnaire and send it back to ECONorthwest (address at end of questionnaire) by Thursday, March 23. If you have questions regarding the survey, please contact Bob Parker (541-346-3801) or by e-mail (rgp@darkwing.uoregon.edu).

Jurisdiction _____ Date _____

Department _____

Name _____ Title _____

Address _____

Phone _____ Fax _____ E-mail _____

Land use database

This section asks a series of general questions about your land use databases and the systems your jurisdiction uses to track land use information. This section includes some questions about buildable lands inventories, however, those questions are general in nature. The final section of the survey asks questions about buildable lands that are much more detailed.

Q-1 Does your jurisdiction have an inventory of existing land use?

- Yes
- No → **SKIP to Q-11**

Q-2 What format is your jurisdiction's land inventory in?

- Hardcopy
- Electronic
- Combination (please describe) _____

Q-3 If your inventory is electronic, is your data in GIS format?

- Yes (specify application software): _____
- No
- NA

Q-4 How often is your inventory updated? _____

Q-5 When was your inventory last updated? _____

Q-6 Is your inventory at the tax lot (parcel) level?

- Yes
- No → (If no, first describe at what level of geography the inventory IS organized)

Q-7 What is the source of data for your land use inventory? (check all that apply)

- Assessor land use codes
- Aerial photographs
- Field verification
- Other (specify) _____

Q-8 What attributes are associated with your tax lot data? (check all that apply)

- Existing land use (what is the parcel being used for *now*?)
- Comprehensive plan designation
- Existing zoning
- Lot Area (in square feet or acres)
- Owner name
- Public Ownership
- Land value
- Improvement value
- Land classification (i.e, developed, vacant, partially-vacant, redevelopable)
- Number of buildings
- Number of housing units
- Square footage of improvements
- Year structure(s) built
- Site addresses
- Public services (i.e., water/sewer available)
- Other (specify) _____

Q-9 Can your system generate reports that combine or relate various parcel attributes? (i.e., crosstabulation of variables, analysis by groups, overlay analysis, etc)

- Yes
- No
- NA

Q-10 Do you have staff capable of generating such reports?

- Yes
- No
- NA

Q-11 Does your system include data on existing and planned capital facilities? (specifically, sewer and water facilities)

Method	Yes	No	Comments
Water Facilities			
Facilities mapped in paper map	<input type="checkbox"/>	<input type="checkbox"/>	
Facilities mapped in GIS data layer	<input type="checkbox"/>	<input type="checkbox"/>	
Facilities included as tax lot attribute	<input type="checkbox"/>	<input type="checkbox"/>	
Sewer Facilities			
Facilities mapped in paper map	<input type="checkbox"/>	<input type="checkbox"/>	
Facilities mapped in GIS data layer	<input type="checkbox"/>	<input type="checkbox"/>	
Facilities included as tax lot attribute	<input type="checkbox"/>	<input type="checkbox"/>	

Development history and policies

This section asks a series of questions regarding how your jurisdiction tracks development and what types of policies your jurisdiction may have adopted in response to the GMA buildable lands program requirements.

Q-12 Does your Comprehensive Plan include residential density targets? (please check all that apply)

- Have adopted target densities for lands within city limit
- Have adopted target densities for lands within city limit and unincorporated UGA
- Have adopted target densities for each plan designation and/or zoning district
- Have adopted overall city-wide target density only
- No adopted target densities

If you have adopted target densities, are the densities expressed in net acres or gross acres?

- Net densities
- Gross densities
- Both (please explain) _____

Net (Buildable) Acre - A Net Acre is an acre of land 100% available for supporting building, after all deductions have been made. Typical deductions are for land that is (1) already developed, (2) in public ownership, (3) constrained by natural features (e.g., water bodies, wetlands, steep slopes), (4) needed for access (public or private streets), or (5) needed for other public purposes (e.g., utility easements, schools). A net acre has 43,560 square feet available for construction, because no further street or utility dedications are required: all the land is in lots.

Gross Acre - Definitions of a Gross Acre vary, depending on how many of the deductions listed to get net acres are assumed. At one extreme, for example, a Gross Residential (vacant) Acre could be defined as all land that is planned or zoned residential and does not have buildings on it. More typical definitions first deducted '1', '2', and '3' above (i.e., a gross acre does not include developed land, land zoned for public use, or land deemed undevelopable because of natural or policy constraints). Thus, Gross Buildable Residential Land is typically defined as the land that is zoned for residential use and buildable, but which still must accommodate non-residential uses (primarily roads) at the sub-division level. Given that definition, a standard assumption is that about 20% of land in a subdivision is used for streets and utilities, and that a gross residential buildable acre will yield only about 35,000 sq. ft. (80% of a full acre) for lots.

If you use a different definition of net or gross acres, please explain here or on attachment:

Q-13 Does your jurisdiction require minimum density standards for new development?

- Yes → If Yes, please describe
- No

Q-14 Does your jurisdiction have a zoning code that allows for mixed-use development?

- Yes → If Yes, please describe
- No

Q-15 Have there been any revisions to your GMA comprehensive plan or zoning regulations since January 1, 1995 that may impact allowable densities (either by increasing or decreasing allowable yields)?

- Yes → If Yes, please describe
- No

Q-16 Please complete the matrix on next two pages by listing your jurisdiction’s comprehensive plan designations and descriptions. Please include any standard abbreviations for each plan designation if used by your jurisdiction. Also, please provide a list of implementing zones for each plan designation, along with descriptions for each zone (and any standard zoning abbreviations if used by your jurisdiction). The table below provides a sample of how the matrix should be filled out.

Plan Des	Related Zoning Districts	Abbrv Title	Min Lot Size/Density	Max Lot Size/Density	Target Density
Single-family Res		SFR	5000 sf	10000 sf	6 DU/Net Acre
	Low Density Res	R1	6000 sf	NA	5 DU/Net Acre
	Medium Density Res	R2	5000 sf	8000 sf	8 DU/Net acre
Multiple family Res		MFR	2500/DU	NA	15 DU/Net acre
	Medium-High Density Res	R3	2500/DU	NA	12 DU/Net acre
	High Density Res	R4	2500/DU	NA	20 DU/Net acre
Commercial		C	5000 sf	NA	FAR 2.0
	Neighborhood Comm	NC	5000 sf	1 acre	FAR 0.5

Q-17 Please answer the following questions regarding development tracking in your jurisdiction.

Codes for tracking systems:

M—Manually

E—Electronically

C—Combination (Please explain under “Comments” above)

If your development tracking system is electronically maintained, please describe above under “Comments” the type of software used (e.g., GIS, database, spreadsheet software, etc.)

Indicator	Included (circle one)	Tracking System (circle one)	Comments (use this space to give a reference to any attached comments)
Can determine total new housing units by zone and plan designation each year	Yes No Partially	M E C	
Can determine the total acres of new residential development by zone and plan designation each year	Yes No Partially	M E C	
Can determine the number of lots platted by zone and plan designation each year, <i>within both formal and short plat subdivisions</i>	Yes No Partially	M E C	
Can determine the <i>gross acreage</i> of land used for new platted residential lots by zone and plan designation each year, within both formal and short plats	Yes No Partially	M E C	
Can determine the <i>gross acreage</i> of land used for new multi-family residential development by zone and plan designation each year	Yes No Partially	M E C	
Can determine the <i>net acreage</i> of land used for new platted residential lots by zone and plan designation each year, within both formal and short plats	Yes No Partially	M E C	
Can determine the <i>net acreage</i> of land used for new multi-family residential development by zone and plan designation each year	Yes No Partially	M E C	
Can determine the number of acres of land developed for new employment uses by zone and plan designation each year	Yes No Partially	M E C	
Can determine the floor area of new commercial and industrial uses developed for employment by zone and plan designation each year	Yes No Partially	M E C	
Can determine floor area of new residential uses separately from new commercial uses for mixed-use developments.	Yes No Partially	M E C	

Q-18 Does your jurisdiction have an inventory of total housing units by housing type (i.e., single-family, multiple family, manufactured homes, etc) that provides more detail than simply the total estimated number of housing units by type within your jurisdiction?

- Have inventory for city limit only
- Have inventory for city limit and unincorporated UGA
- Have inventory for other area(s) (specify) _____
- Do not have inventory → **Go to Q-19**

If you have an inventory, what is the source of data for the inventory? (Check all that apply)

- Census
- Census + occupancy permits
- Assessment data
- Windshield survey
- Local study (specify title and date) _____
- Other (specify) _____

If you have an inventory, how frequently is it updated?

- Annually
- Other time period (specify) _____

When was it last updated?

Q-19 Does your jurisdiction track information on unoccupied (or significantly under-utilized) commercial and industrial buildings that could be used to accommodate future demand for employment space needs?

- No → Go to the next question
- Yes → Please answer the following:

A. What is the data source? _____

B. How frequently is the data updated? _____

C. When was the data last updated? _____

Q-20 Does your jurisdiction track estimates of the number of employees within existing commercial and industrial structures?

- No → Go to the next question
- Yes → Please answer the following:

A. What is the data source? _____

B. How frequently is the data updated? _____

C. When was the data last updated? _____

Q-21 Please indicate which of the following permits are tracked by your jurisdiction, whether the data are available back to Jan. 1, 1995, whether the data include the data of submittal, and what system(s) used to track the data. Please include any other relevant information in the comments column.

Permit Type	Tracked (Y/N)	Data back to 1/1/95	Data include date of submittal	System (circle all that apply)	Comments
Building permits issued (residential, commercial and industrial)	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Approved site plans for multi-family residential, commercial and industrial development	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Final subdivision approvals	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Final short subdivision approvals	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Pending subdivisions and short subdivisions under review (both proposed and preliminarily approved)	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Pending multi-family residential, commercial and industrial building permits under review	Y N	Y N	Y N	Paper Database Spreadsheet GIS	
Certificates of occupancy issued for new residential, commercial and industrial development	Y N	Y N	Y N	Paper Database Spreadsheet GIS	

Buildable lands inventory

This section of the survey asks a series of questions about buildable lands information your jurisdiction may maintain that could help satisfy some of the GMA buildable lands inventory requirements.

Q-22 Has your jurisdiction completed a buildable lands inventory?

- No → You are done with this survey: thank you.
- Yes → Please answer the following:

A. When was it last updated? _____

B. What format is it in? (GIS/paper, etc) _____

Q-23 Please indicate which land classifications were used in your buildable lands inventory/land capacity analysis (check all that apply).

- Vacant land
- Under-utilized/underdeveloped land
- Redevelopable land
- Partially used land
- Undevelopable land (constrained or other)

Vacant land - Parcels of land that have no structures or have buildings with very little value.

Under-Utilized Land - All parcels of land zoned for more intensive use than that which currently occupies the property. For instance, a single-family home on multifamily-zoned land will generally be considered under-utilized.

Redevelopable Land - Land on which development has already occurred but on which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive uses during the planning period.

Partially-used Land - Are parcels occupied by a use but which contain enough land to be further subdivided without need of rezoning. For instance, a single house on a 10-acre parcel, where urban densities are allowed, is partially developed.

Undevelopable Land - Parcels that are undevelopable due to size (e.g., the parcel is under the minimum lot size for the zone) or environmental constraints.

Please attach any documentation you may have which defines the land classification assumptions that you have used previously.

Q-24 Please indicate whether “market availability” assumptions were used in your buildable lands inventory/land capacity analysis (i.e., you assumed that a certain amount or percentage of land would be held out from development over your plan’s 20-year timeframe).

- No → go to the next question
- Yes → please answer the following:

A. Does documentation of the assumptions used exist?

- Yes → If yes, return a copy with the completed questionnaire.
- No

Q-25 Please indicate whether your jurisdiction has completed any of the following analyses (check all that apply; please write comments in the final column or on an attached sheet).

Analysis	For City Limit	For UGA	Document Name	Date	Reference to Comments
Forecasts					
Population Forecast	C P	C P			
Employment Forecast	C P	C P			
Land Need Analysis					
Housing Needs by housing type and density range	C P	C P			
Employment Land Needs associated with anticipated commercial and industrial employment growth	C P	C P			
Public Facility Needs by type (see Q-27 matrix)	C P	C P			
Buildable Lands Inventory					
Residential Land	C P	C P			
Employment Land	C P	C P			
Public/Other Land	C P	C P			
Land Capacity Analysis					
Residential Land	C P	C P			
Employment Land	C P	C P			
Public/Other Land	C P	C P			

Consistency with GMA requirements:
 C—Consistent with GMA requirements
 P—Partially meets GMA requirements

Please provide copies of any of the above analyses that are complete.

Q-26 What types of environmental/critical areas constraints were included, and how where they estimated?

Constraint Type	Included	If yes, deduction type:	Source of Data (are data mapped, and if so, on paper or GIS?)	Notes on assumptions/definitions how applied
Wetlands	Y N	N G S		
Frequently flooded areas	Y N	N G S		
Geologically hazardous areas/Steep slopes Specify % _____	Y N	N G S		
Riparian zones or corridors	Y N	N G S		
Aquifer recharge areas				
Fish and wildlife habitat conservation areas				
Contaminated sites	Y N	N G S		
Other environmental constraints (specify) _____	Y N	N G S		

Deduction type codes:

- N—No Deduction
- G—General Deduction
- S—Site Specific Deduction (tax lot)

Does documentation of the assumptions used exist? (If yes, return a copy with the completed questionnaire.)

- Yes
- No
- NA

Please attach any documentation of constraint deductions that you think would be helpful.

Q-28 Please indicate if land needed for **future** public purposes other than residential and employment uses is defined and estimated in your land capacity analysis.

Land Use Type	Included	If yes, deduction type:	Source of Data (are data mapped, and if so, on paper or GIS?)	Notes on assumptions/definitions how applied
Parks/Open space	Y N	N G S		
Schools	Y N	N G S		
Municipal offices	Y N	N G S		
Rights-of-way	Y N	N G S		
Police/Fire facilities	Y N	N G S		
Stormwater drainage/detention	Y N	N G S		
Water storage	Y N	N G S		
Wastewater treatment and pump stations	Y N	N G S		
Landfills or transfer stations	Y N	N G S		
Power line right-of-ways	Y N	N G S		
Roads	Y N	N G S		
Airport clear zones	Y N	N G S		
Greenbelt	Y N	N G S		
Other (specify) _____	Y N	N G S		

Deduction type codes:

N—No Deduction

G—General Deduction

S—Site Specific Deduction (known tax lot locations)

Please attach any documentation of public facility deductions that you think would be helpful.

Please return this survey to:

***Bob Parker
ECONorthwest
99 West 10th Avenue, Suite 400
Eugene, Oregon 97401***

If you have questions concerning this survey, please contact Bob Parker at 541-346-3801 or via e-mail (rgp@darkwing.uoregon.edu)

Thank you for completing the survey