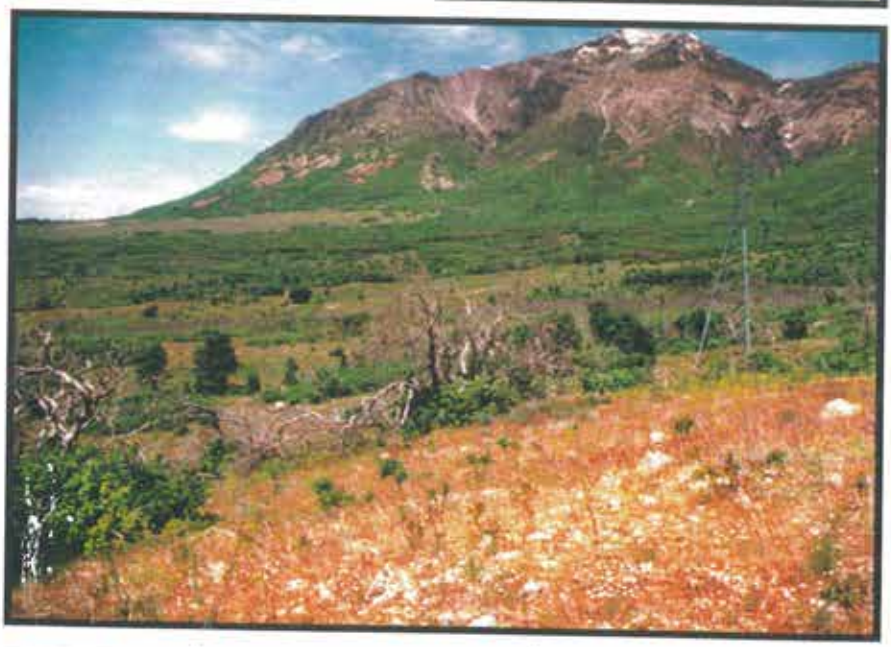
North Ogden City

North Hillside Development Study



January 1997

NORTH HILLSIDE DEVELOPMENT STUDY

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1.0 PREFACE

Over the past 10 years North Ogden City (the City) has experienced substantial residential development, particularly in the City's sensitive foothill areas. Continued development in this area is of particular concern because it may negatively affect natural resources, such as wildlife and water, and because naturally occurring hazards, such as landslides and faults, may make the area unsafe for future residents. In June 1996, the elected officials of the City initiated a comprehensive land planning study to obtain information that could be used in the proper management of future growth in the North Hillside area, a major portion of the City's undeveloped foothill areas. It is with this foresight that the North Hillside Development Study was initiated.

A major objective of the North Hillside Development Study (the study) is to provide the City with effective tools that can be used to guide growth in the North Hillside area, ensuring that development does not compromise the health, safety, or welfare of North Ogden citizens. The tools developed for this study include:

- Resource Inventory Maps
- Resource Constraints Maps
- Development Master Plan Maps
- Development Guidelines

The tools developed for this study rely on the accuracy of data incorporated from previously completed studies, in particular the Natural Constraints to Urban Development in the North Ogden Area study (Ridd and Kaliser 1978), and additional limited fieldwork performed during the summer of 1996 to verify existing data. Additional studies regarding resources within the North Hillside area are currently being prepared. These and other future studies that pertain to the North Hillside area should also be considered when development proposals are presented to the City.

This study provides information and recommendations for developers, citizens, and elected officials to use as the North Hillside area is developed. This study is designed to guide development, not constrain or restrict it. All proposed development must be assessed by the joint efforts of North Ogden citizens, the North Ogden Planning and Zoning Commission, and the North Ogden City Council. Specific components of a proposed development will be analyzed by these entities upon formal submittal to City offices. Development proposals should incorporate the findings of this study, the North Ogden General Plan, and any existing City ordinances.

2.0 PURPOSE

The purpose of this study is to direct future development within the North Hillside area in order to protect natural resources, avoid natural or human-made hazards, and preserve lands for future public use. To this end, this study is an initial step that identifies potential areas that should be protected, avoided, or preserved based on information from the Resource Inventory Maps and Resource Constraints Maps (see Section 6.0). These maps were derived from published and unpublished information that was recorded for large geographical areas. As such, mapping components of this study should not be taken literally without the benefit of more site specific information.

This study is designed to assist developers, citizens, and elected officials in addressing the pending changes that may occur in the North Hilliside area within the next 10 to 15 years and beyond. The focus of this study is to provide information that will encourage innovative and creative residential developments within the area. Approval of developments within the North Hillside area should be a reiterative process between citizens, elected officials, and developers using the most current and detailed information available. This study is intended to identify those areas where developers may be required to conduct more site specific studies prior to development approval.

This study is also intended to produce definitive policy directions in the form of Value Statements for the North Hillside area. These Value Statements form the basis for making decisions about the importance of resources within the North Hillside area. They also provide understanding about what issues are of critical concern to all interests of the community. The Value Statements developed for this study are discussed in detail in Section 5.0.

3.0 BACKGROUND OF THE PROJECT AREA

The City lies in the north-central part of Weber County in northern Utah approximately 40 miles north of Salt Lake City (see Figure 1). Beyond the City limits, to the north and the east lie the Wasatch Mountains, part of the Wasatch-Cache National Forest. Ben Lomond, to the north, peers majestically over the City. In this part of the Salt Lake Valley, the Wasatch Mountains protrude sharply upward from the valley floor. Because of its foothill location, surrounded by mountains on two sides, the City commands a panoramic view of the Salt Lake Valley to the west and south (see Photo 1).

Currently, the City has a population of approximately 13,900 individuals and comprises approximately 10 square miles (6,400 acres) of land. Most of the land is primarily in residential land use. Agricultural, followed by institutional and transportational, make up the majority of the remaining land uses within the city.

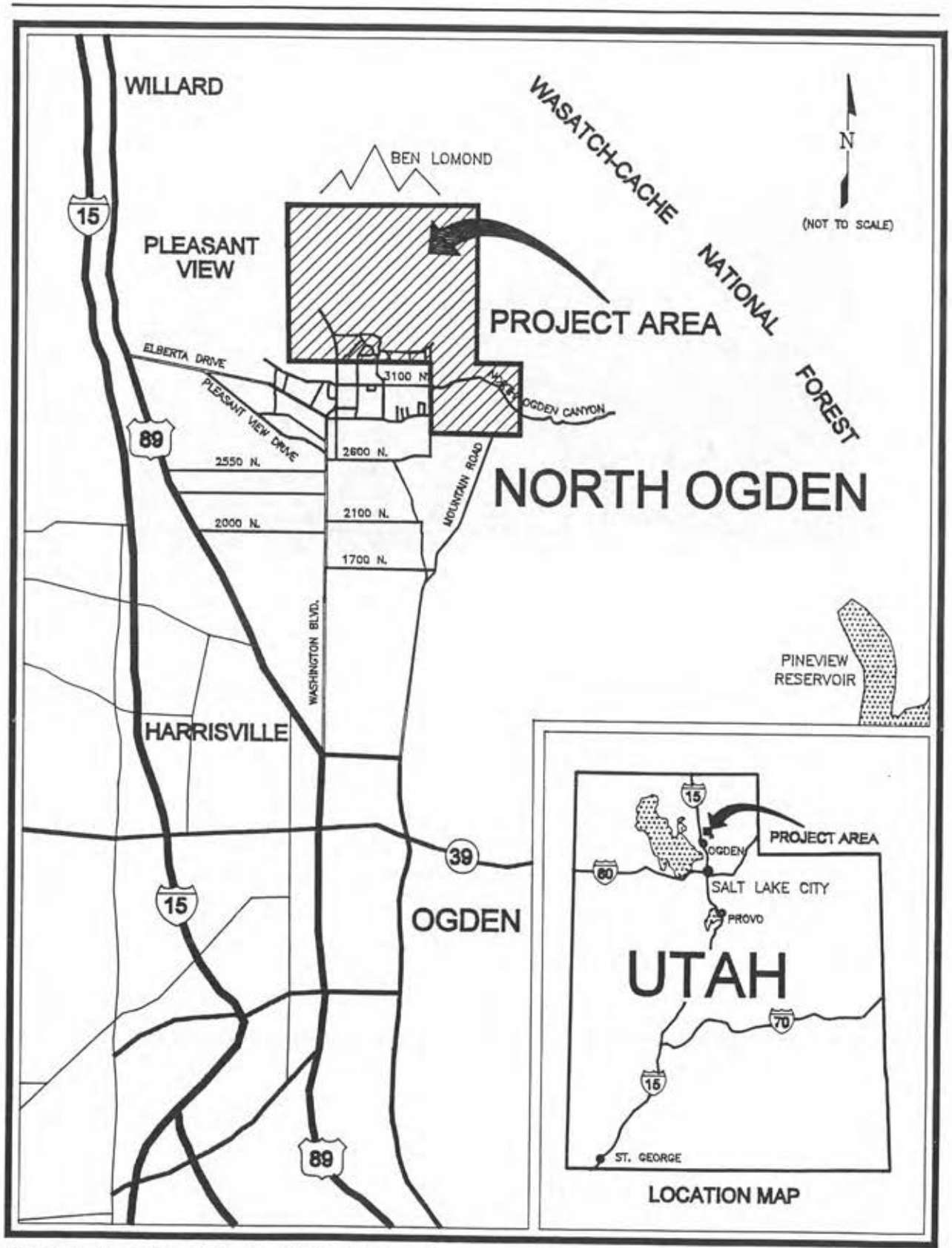

Figure 1. Location of the North Hillside Development Study project area.

Photo 1. A view of the Salt Lake Valley from the project area.

The North Hillside Development Study project area (project area) includes all land within the existing City limits, as well as land that may be annexed by the City in the future, north of 3300 North street (see Figure 1). Residential subdivisions currently exist in the southern portion of the project area and are rapidly developing towards the north (see Photo 2). There are approximately 2,700 acres, or 33 percent of existing and potential City lands, within the project area.

4.0 PLANNING PROCESS

The development of this study involved a five step planning process: (1) Creating Value Statements; (2) Creating Resource Inventory Maps; (3) Creating Resource Constraints Maps; (4) Creating Alternative Development Scenarios; and (5) Creating a Development Master Plan (see Figure 2). Each of these steps is described in detail later in this study. In addition to implementing these five steps, a planning work group (PWG) was formed to provide input into the planning process. The PWG included representatives of the development community, landowners, the U.S. Forest Service, the Utah State Division of Wildlife Resources, City officials, City Council and Planning and Zoning Commission members, and residents of the City. The PWG met three times providing input into each step of the planning process. Specifically, the PWG assisted in identifying planning issues, developing value statements, prioritizing resource concerns, and recommending a preferred Development Master Plan.

Photo 2. View of recent residential development in the project area.

Citizen participation was also incorporated into the planning process. An open house workshop was held in addition to Planning and Zoning Commission and City Council meetings in order to gain public input into the planning process. At the workshop, initial results of the study (i.e., Value Statements, Resource Inventory and Resource Constraints Maps, Alternative Development Scenarios, and the preferred Development Master Plan) were presented at four workshop stations. Participants were asked to provide comments on the planning recommendations (see Appendix A for a summary of the public comments). Appropriate changes were then made to the preferred Development Master Plan based on these comments.

5.0 VALUE STATEMENTS

All planning projects need a solid foundation upon which to build the planning process. This foundation should incorporate the vision that different "stakeholders" have in a particular project. In this study, the stakeholders include residents, landowners, and community leaders of the City. Their vision has been articulated in the form of Value Statements. Value Statements are descriptions of what is important to the stakeholders about the project area.

The following Value Statements represent a common vision regarding the North Hillside area. Three Value Statements for this study were developed from discussions with the PWG and from results of the community survey conducted in early 1996 (see Appendix B). These Value Statements provided direction to the North Hillside Development Study planning process.

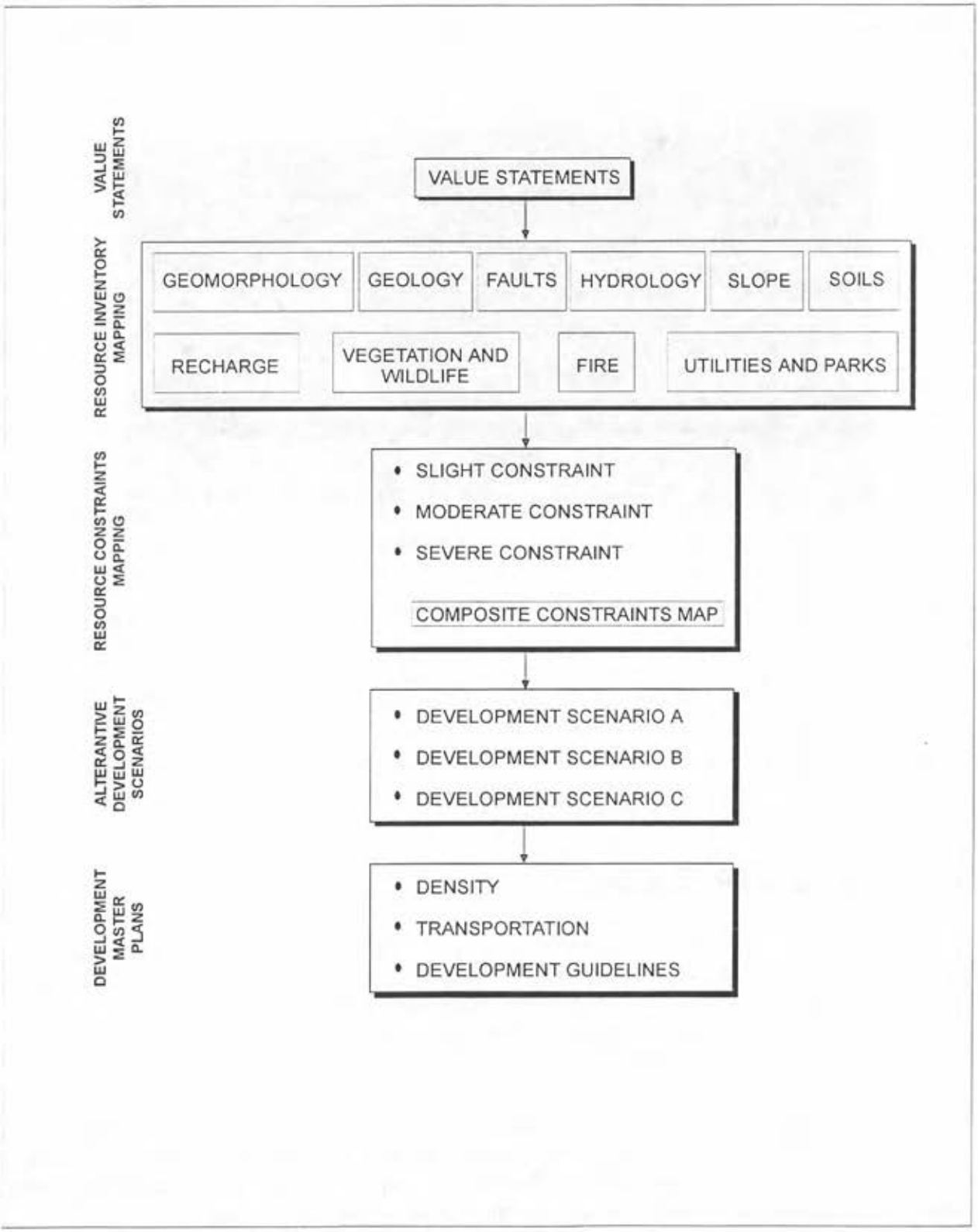

Figure 2. North Hillside Development Study planning process.

VALUE 1 - QUALITY OF LIFE

We believe that the quality of life in the North Hillside Development Study project area of North Ogden City is valued greatly by its citizens and it should not be compromised. This quality of life is vital to the sense of well-being of existing and future citizens of the community. We further believe that quality of life for the citizens of North Ogden City consists of the following elements.

1. Safety for residents.
2. Conservation of natural resources.
3. Accessibility to diverse outdoor recreational activities and public land.
4. Quality visual appearance of the project area.
5. Meaningful open space between groups of homes.

VALUE 2 - BALANCED GROWTH

We believe that development in the North Hillside Development Study project area of North Ogden City should reflect an appropriate balance between conservation and development interests. We believe that conservation of natural resources should mean protection against substantial loss where possible. To accomplish this, all interests must work together and all must be willing to compromise.

VALUE 3 - PLANNED GROWTH

We believe that growth in the North Hillside Development Study project area of North Ogden City must be managed intently by the City. We further believe that management of growth is a function of planning, engineering, and economics. North Ogden City must assure that infrastructure and services are planned to maintain current levels and to accommodate future growth.

These Value Statements should be used by the City's decision-makers to evaluate all development proposals in the project area. Decisions should be guided by the ideas expressed in each Value Statement. As public hearings are held to consider various development and zoning changes, decision-makers should measure each development proposal against each Value Statement. If a particular development proposal does not meet the intent of each Value Statement, the development proposal should be modified to conform to the findings of this study. On the other hand, if the ideas expressed in each Value Statement become out-dated or no longer valid, the Value Statements should be modified to meet the desires of North Ogden citizens.

6.0 RESOURCE INVENTORY AND CONSTRAINTS MAPPING

Using existing data and information from field investigations conducted as part of this study, a team of specialists mapped characteristics of different natural and human-made resources within the project area. The resulting Resource Inventory Maps characterized resource conditions such as Geomorphology, Geology, Faults, Hydrology, Slope, Soils, Recharge, Vegetation, Wildlife, Fire, and

Utilities and Parks within the project area. Information from these maps, in addition to recommendations from resource specialists, were then used to generate Resource Constraints Maps.

Resource Constraints Maps delineate locations within the project area that pose "severe," "moderate," or "slight" constraints to residential development based upon the specific characteristics of each resource. For example, the entire project area was mapped according to slope steepness. Areas with slopes less than 11 percent or less than 21 percent were considered to pose "slight" or "moderate" constraints to development, respectively. Steeper areas (21 percent slope or greater) were considered to pose "severe" constraints to development. While development would not be impossible in severe constraint areas, it would probably be unsafe and would definitely be more expensive to implement. Resource Inventory and Constraints Maps were used in creating a Development Master Plan and Development Guidelines for the project area.

Prior to initiating the resource mapping effort, a Base Map (see Figure C-1 in Appendix C) was created that shows the location of the project area. Also included on the Base Map is a watershed boundary that defines the furthest limits of lands surrounding the project area that were mapped for each resource. The watershed boundary extends beyond the City limits in order to identify an extended "area of influence" that needs to be considered in future hillside development. Existing development is shown in the southern portion of the project area. The project area boundary, watershed boundary, and existing development are common elements on all the Resource Inventory and Constraints Maps. Each of the resources that were incorporated into the study are briefly described below. All maps are included in Appendix C.

6.1 Geomorphology

The Geomorphology Inventory Map (see Figure C-2) shows the geologic processes that have influenced and continue to influence the topography of the project area. The project area is located within the Basin and Range province, at the base of the Wasatch Mountains. Historical Lake Bonneville deposits are present in the southern portion of the project area. The topography of the project area can be characterized as mountainous and alluvial terrain that exhibits a history of producing gravity-driven, slope-related processes including: avalanches, landslides, and rock slides.

One large historical rock slide/landslide is present within the project area and is identified as the North Ogden Rock Slide (see Figure C-2) (Pashley and Wiggins 1971). This slide may have been induced by movement of the Wasatch fault. The bedrock units that are exposed on the mountainous terrain in the project area are susceptible to sliding because they are highly fractured by normal thrust faults (see Section 6.3 Faults). The materials mobilized from the North Ogden Rock Slide extend roughly 0.5 mile from the mountain front. Another historical rock slide/landslide that occurred near Beus Canyon (south of Weber State College in Ogden) deposited material approximately 1 mile away from the mountain front (Pashley and Wiggins 1971).

The information from the Geomorphology Inventory Map was used to generate the Landslide and Avalanche Constraints Map (see Figure C-3). The Landslide and Avalanche Constraints Map depicts "buffer zones" around geomorphological features, such as landslides, avalanches, and rock slides that could be hazardous to development. Historical slides indicate that material may be mobilized from 0.5 to 1 mile from the steep mountain front (Pashley and Wiggins 1971). Therefore, a "severe constraints" classification was applied to areas within 0.5 mile of the mountain front. A "moderate constraints" classification was applied to areas within 1 mile of the mountain front. A "slight constraints" classification was applied to areas further than 1 mile from the mountain front.

6.2 Geology

The Geology Inventory Map (see Figure C-4) indicates the locations of bedrock types, landslides, debris slides, and sediment formations such as alluvial fans and historical Lake Bonneville sediments. The data were complied from a number of geologic maps published by such organizations as the U.S. Geological Survey. The geologic deposits of an area indicate the types of geologic processes that occurred in the past and are expected to occur in the future (Utah Geologic Survey 1996; Arabasz et al. 1992; Nelson and Personius 1991; Personius 1991; Davis 1985; Arnow 1971). Geologic deposits are sediments that are transported by debris flows, floods, and streams that occur over a long period of time (i.e., hundreds of years) (see Photo 3). For example, alluvial fans, which are sedimentary deposits that accumulate below the mouths of canyons, indicate potential hazardous conditions to residential development. Numerous buildings constructed on alluvial fans along the Wasatch Mountains front have been destroyed or damaged by debris flows and floods (Wieczorek et al. 1993; Kaliser 1983; Marsell 1971). Figure C-4 also indicates the location of one large rockfall/landslide (noted by symbol *crf*) within the project area.

Photo 3. View of geologic deposits that were transported by debris flows and floods in the project area.

A debris flow or "flash flood" is a rapidly moving mix of sediment and water. Debris flows carry sediment with sizes ranging from clay particles to car-sized boulders. Debris flows occur during events of intense precipitation or rapid snowmelt (Marsell 1971). Debris flows are one of the main geological processes that occur on alluvial fans. The flows typically do not occur every year but can be very destructive when they do occur. Active or recently active ("young") portions of alluvial fans are designated on Figure C-4 with the symbol *afl* or *afy*.

On September 7, 1991 a debris flow deposited snow 1,300 feet from the mountain front causing damage to homes in the Cameron Cove Subdivision, which is located in the southeast portion of the project area (see Photo 4) (Dollhausen 1991; Perla 1971). This debris movement indicates how far a debris flow deposition zone could extend from the mountain front.

Information from the Geology Inventory Map was used to generate a Debris Flow Constraints Map (see Figure C-5). The portion of alluvial fans closest to active stream channels or closest to the mountain front were mapped as posing "severe constraints" to development because of the high potential for debris flow. Alluvial fans located away from active stream channels or at some distance from the mountain front were mapped as posing "moderate constraints" to development because of moderate potential for debris flows. Inactive or older alluvial fans were mapped as posing "slight constraints" to development because of low probability for debris flow.

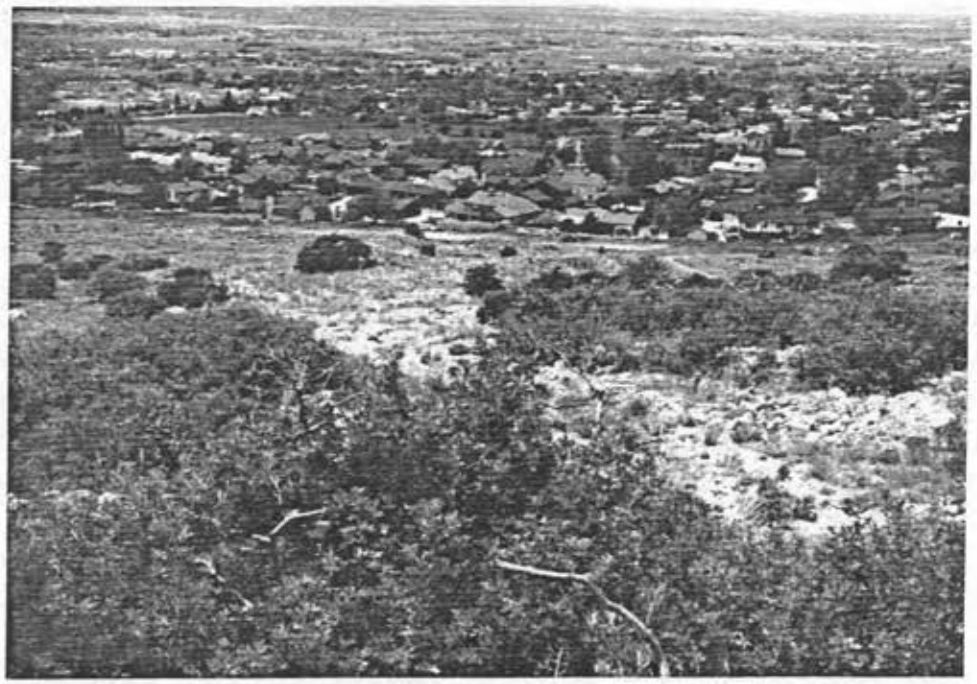

Photo 4. View of Cameron Cove subdivision showing the debris flow path.

6.3 Faults

The Faults Inventory Map (see Figure C-6) indicates the locations of the active normal faults (e.g., the Wasatch Fault), inactive (historical) thrust faults, and historical Lake Bonneville shorelines that have been identified on maps published by such organizations as the U.S. Geological Survey (Utah Geologic Survey 1996; Arabasz et al. 1992; Nelson and Personius 1991; Personius 1991; Davis 1985; Arnow 1971). Active faults are considered hazardous to development and knowledge of their location is important to minimize impacts to critical facilities, such as utilities, hospitals, and schools, during an earthquake event. Active faults typically do not occur along a single fault line but in a wider "fault zone" where a number of faults may cause surface rupture and ground deformation.

The Faults Constraints Map (see Figure C-7) depicts buffer zones around the mapped active faults. Based on information collected (Utah Geologic Survey 1996; Arabasz et al. 1992; Nelson and Personius 1991; Personius 1991; Davis 1985; Arnow 1971) from studies on the Wasatch Fault (McCalpin 1990) and on earthquakes in similar geologic settings (Bucknam and Stein 1987; Jackson and Boatwright 1987; Crone et al. 1987), the fault zone is expected to be approximately 330 feet wide with a maximum quake magnitude of 7.2 to 7.5 using the Richter Scale. Estimates for maximum fault scarp offset range from 10 to 16 feet. A fresh fault scarp is very unstable and will rapidly erode (ravel) to a less steep angle. The mapped buffer zone includes an additional 20-foot zone to account for this eroding scarp face. Therefore, areas within 175 feet of an active fault were considered to pose "severe constraints" to development, areas between 175 and 300 feet of an active fault were considered to pose "moderate constraints" to development, and areas greater than 300 feet of an active fault were considered to pose "slight constraints" to development.

6.4 Hydrology

When planning for development, it is important to consider the hydrologic characteristics of an area, especially in the Intermountain West. Every year disasters are reported throughout the country involving destruction of property from flood events. Unfortunately, most flood event disasters could be prevented by avoiding developing within delineated drainages (stream channels) and floodplains (see Photo 5). Many of these drainages are found within the project area.

The Hydrology Inventory Map (see Figure C-8) delineates six major drainage basins within the project area and indicates the location of all known perennial (i.e., flow year-round), intermittent (i.e., flow certain times of the year), and ephemeral (i.e., flow in response to rain events) stream channels; the Ogden-Brigham Canal; and the 100-year flood plain as designated by the U.S. Federal Emergency Management Agency (FEMA).

The Hydrology Constraints Map (see Figure C-9) designates locations within the project area where development constraints associated with hydrological features may occur. Areas of "severe

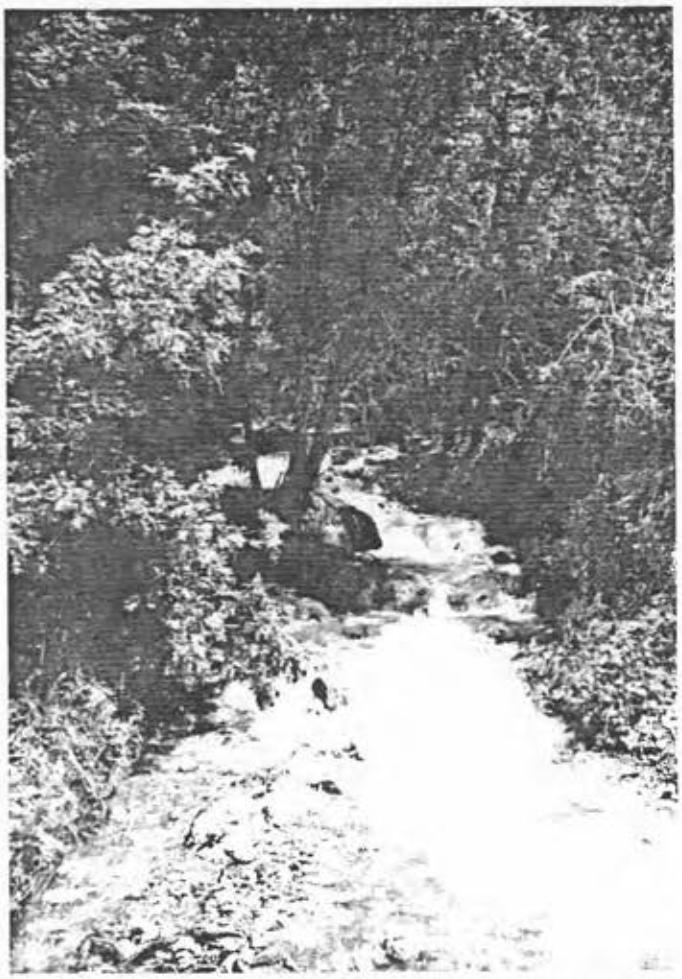

Photo 5. View of a stream channel within the project area.

constraints" are located within 50 feet of a stream channel, within 16 feet of the Ogden-Brigham Canal, or within the 100-year floodplain. Development in these areas will likely cause adverse impacts to the quality, quantity, and timing of runoff. Areas of "moderate constraints" are located 50 to 100 feet from a stream channel. Areas of "slight constraints" are located more than 100 feet from stream channels, more than 17 feet from the Ogden-Brigham Canal and outside of the 100-year floodplain. Projections of surface runoff from each of the six drainage basins for various return period intervals (i.e., 2-, 5-, 10-, 50-, 100-, and 500-year return periods) are provided in Appendix D. These projections show hydrologic flow rates to illustrate how much water could potentially flow in the six major drainage basins.

6.5 Slope

When developing houses and other facilities, it is important to consider the gradient or steepness of the land (i.e., the slope). Most people recognize that building on a flat area is easier and less costly than building on steeper areas. This information is particularly important to community leaders since infrastructure such as roads and sewers become more difficult to construct and maintain in areas steeper than 10 percent. In addition, steeper slopes are more prone to hazards such as landslides, rock falls, and debris flows.

The Slope Inventory Map (see Figure C-10) indicates differences in the slope of the land within the project area. For this project, slope has been grouped into four categories: 0 to 10 percent, 11 to 20 percent, 21 to 30 percent, and over 31 (31+) percent. A 10 percent slope means that for every 100 feet traveled horizontally, the elevation rises 10 feet.

The Slope Constraints Map (see Figure C-11) depicts the slope-related constraints to development. Areas within the 0 to 10 percent slope category are considered to pose "slight constraints" on development while areas within the 11 to 20 percent slope category are considered to pose "moderate

constraints" on development. Areas within the 21 to 30 percent and 31+ percent slope categories are considered to be "non-developable lands" since development may be unsafe, unsightly, or substantially more expensive to implement. In fact, existing City ordinances prohibit development on slopes steeper than 20 percent.

6.6 Soils

Knowledge of soil characteristics is important when planning land uses within a particular area. Whether the intended use is for agriculture, transportation, residential, commercial, or industrial purposes, certain soil types will be more suitable than others. Locating residential developments within soils that may pose a hazard to structural integrity can be a costly and dangerous endeavor.

The Soils Inventory Map (see Figure C-12) depicts the different types of soils found within the project area, as defined by the U.S. Natural Resources Conservation Service (NRCS). Soil types were grouped together based on limiting factors (qualities that could limit development) to produce the Soil Constraints Map (see Figure C-13). Limiting factors include shallow depth to bedrock, shallow depth to water table, rock outcrops, and gravel pits. Soils were designated as posing "slight constraints," "moderate constraints," or "severe constraints" to development, based on ratings by the NRCS (U.S. Soil Conservation Service 1968). Table 1 provides a summary of soil types found within the project area and their limiting factors.

6.7 Recharge

Many communities throughout the Intermountain West, including North Ogden, rely on groundwater to supplement domestic water supplies. In most cases, these groundwater supplies are maintained by water infiltrating the ground in "recharge" areas. Groundwater recharge occurs where there is enough water present to move through the unsaturated zone of the soil and into an aquifer (i.e., an underground layer of porous rock containing water). Development in critical groundwater recharge areas, such as those that exist in the project area, creates impermeable surfaces and may result in greater amounts of water "running off" the land during spring flows and storm events. This can cause reduced infiltration and lower the groundwater supplies that provide an important drinking water source for community residents. The Recharge Inventory Map (see Figure C-14) indicates where groundwater recharge areas are located within the project area (Anderson et al. 1994).

The Recharge Constraints Map (see Figure C-15) indicates where groundwater recharge areas occur in the project area. These areas pose "severe constraints" to development due to the importance of maintaining an adequate quantity and high quality water supply for the City. Development in these areas will create impermeable surfaces and may result in greater surface runoff during spring flows and storm events. This will cause reductions to infiltration and lower the groundwater supply. In addition, the quality of the groundwater may be impacted due to changes in land management within the recharge areas.

Table 1. Information on soil types found within the project area.

Soil Series and Map Symbol	Estimated Soil Properties Significant to Engineering				Engineering Interpretation of Soils
	Depth to Water Table (inches)	Depth to Bedrock (inches)	Shrink-Swell Potential	Potential Slopes (percent)	Limitations for Use in Residential Development (Building Foundations)
Ackmen Loam: *AbB, AbC, AbD*	*	N/A	Low	1 to 10	Moderate
Draper Loam: *DaB*	20 - 48	> 60	Moderate	1 to 3	Severe
Draper Loam: *DrC*	20 - 48	> 60	Moderate	3 to 6	Moderate
Kidman Fine Sandy Loam: *KaC*	40 - 60	> 60	Low	3 to 6	Slight
Kilburn-Francis Association: *KFE2*	*	> 60	Low	10 to 20	Slight
Kilburn Gravelly Sandy Loam: *KgC*	*	> 60	Low	3 to 6	Very Slight
Kilburn Gravelly/Cobbly Sandy Loam: *KgD, KlC*	*	> 60	Low	3 to 10	Slight
Kilburn Gravelly/Cobbly Sandy Loam: *KgE2, KlE2*	*	> 60	Low	10 to 20	Moderate
Logan Silty Clay Loam: *Lt*	at or near surface	>60	Low to Moderate	n/a	Very Severe
Marriot Gravelly Sandy Loam: *MgD*	*	N/A	Low	6 to 10	Slight
Marriot Gravelly Sandy Loam: *MgE2*	*	N/A	Low	10 to 20	Moderate
Parleys Loam: *PaA, PaC, PaD, PaE2*	36 - 60	> 60	Moderate	0 to 20	Severe
Pleasant View Loam: *PvC, PvD, PvE, PvE2, PwC, PwD*	*	N/A	Low	3 to 20	Moderate
Ridd Rocky Sandy Loam: *RkE2*	*	25 - 40	Low	10 to 30	Moderate
Ridd Rocky Sandy Loam: *RkG2*	*	25 - 40	Low	30 to 70	Very Severe
Sterling Cobbly Loam: *SgE*	*	> 60	Low	8 to 20	Moderate
Sterling Very Rocky Loam: *ShF2*	*	> 60	Low	6 to 50	Moderate to Very Severe
Timpanogos Loam: *TcE, TDD,TbD2*	36 - 48	> 60	Low to Moderate	3 to 20	Moderate
Woods Cross Silty Clay Loam: *Ws, Wt*	24 - 48	> 60	Moderate to High	n/a	Very Severe

* Indicates that there was no water table within the depth of observation, which is 5 feet unless limited by bedrock.

6.8 Vegetation and Wildlife

Wildlife occurring within the project area that are of interest to the state of Utah, the U.S. Federal Government, and the general public include the following groups: general wildlife populations, raptors, big game, and threatened and endangered species. A general discussion of the potential for occurrence of these groups of wildlife and presence of important habitats within the project area are provided below.

General Wildlife

The project area provides diverse habitat for wildlife species that occupy the area on a year-round or seasonal basis. Eight different habitat types, defined by vegetation communities, are found within the project area. These include: (1) sage-grassland, (2) oak-maple shrubland, (3) oak-talus shrubland, (4) douglas fir forest, (5) PEM-wet meadow, (6) birch-aspen forest, (7) PSS-willow/cottonwood, and (8) wet meadow/grassland complex (see Photo 6). The Vegetation and Wildlife Inventory Map (see Figure C-16) indicates the locations of wildlife habitat, based on vegetation communities, that are located within the project area.

The majority of the wildlife species that inhabit the project area are tolerant to some levels of human disturbance due to the proximity of existing residential development and use of the hillside area for recreation. Common wildlife species in the project area include California quail, common flicker, black-billed magpie, house finch, mourning dove, American robin, ring-necked pheasant, gopher snake, skunk, and mule deer. Species that are less tolerant to human disturbance reside primarily at the base of the foothills in the northern portion of the project area and within the protective cover of the oak-maple shrublands. These species include several species of raptors, lazuli bunting, western tanager, song sparrow, western kingbird, and occasionally, mountain lion.

Photo 6. View of sage-grassland and oak-maple shrubland vegetation communities within the project area.

Habitats that are somewhat limited in the project area or provide important resource needs (e.g., protective cover, nesting sites, forage) for many wildlife species include wetland and riparian areas (composed of PSS-willow/cottonwood, wet meadow/grassland complex, and PEM-wet meadow vegetation communities) and oak-maple shrublands. PSS-willow/cottonwood and oak-maple shrubland habitats also provide natural movement corridors and safe refuges for species that are relatively intolerant of human disturbance. Woodland habitats are of particular importance to migrating birds that use these habitats to forage and rest during migration. Wetland areas in the project area have the potential to support amphibians with the removal of grazing pressures.

Raptors

The project area provides optimal habitat for a variety of raptors due to the presence of numerous nesting sites, vantage points, and prey species. Raptors that likely nest within the area include Cooper's hawk, American kestrel, Swainson's hawk, and red-tailed hawk. These species typically construct nests within the branches of large trees or on cliff ledges. Golden eagles are occasionally observed but nest sites have not been documented. Many other raptors migrate through the area during spring and fall. Several species winter in the area. The shrubland and grassland habitats (i.e., sage-grassland and wet meadow/grassland complex) provide abundant prey such as jackrabbits, rabbits, gophers, and mice.

Big Game

The project area is inhabited by mule deer on a year-round basis. Mule deer are particularly prevalent in the project area during the winter and remain at the lower elevations during periods of heavy snow accumulation (see Figure C-16). Primary movement corridors in the project area include stream drainages and mountain ridgetops (see Figure C-16). Fawning in the project area has not been reported. All habitats in the project area provide forage and/or cover for mule deer. Existing conflicts with mule deer include harassment by domestic and feral dogs, increased stress from human disturbance during critical periods, and displacement from historical winter range.

Threatened and Endangered Species

Federally listed plant and animal species are not known to inhabit the project area for an extended period of time. However, two federally listed animal species occur infrequently and on a temporary basis. The endangered peregrine falcon is occasionally reported during spring and fall migration. With expanding populations, this species could establish nest sites on cliffs near the project area in the future. Large concentrations of the threatened bald eagle winters within several miles of the project area and may be observed occasionally in-flight. Little foraging, roosting, or nesting opportunities for the peregrine falcon and bald eagle are present. Therefore, extended use of the project area by these species is unlikely.

The Vegetation and Wildlife Constraints Map (see Figure C-17) depicts the different levels of development constraints based on areas of high wildlife concentrations and their important resource needs (e.g., protective cover, nesting sites, foraging areas). These areas include wetland and riparian areas (PEM-wet meadow, PSS-willow/cottonwood, and wet meadow/grassland) and oak-maple shrublands. Riparian and oak-maple shrubland habitats also provide natural movement corridors and

safe refuges for species that are relatively intolerant to human disturbance. Woodland habitats are of particular importance to migrating birds that use these habitats to forage and rest during migration. Because of the high wildlife value, wetland and riparian areas and oak-maple shrublands are considered to pose "severe constraints" to development within the project area. Areas of sage-grassland pose "moderate constraints" while all other areas pose "slight constraints."

6.9 Fire

Fire hazard can be assessed by the available fuel types (vegetation), aspect, and proximity of an area to urban communities. The Fire Inventory Map (see Figure C-18) indicates the vegetation communities that have been mapped within the project area while the Fire Constraints Map (see Figure C-19) indicates the fire hazard these vegetation communities pose to development. The sage-grassland and oak-maple shrubland are considered to pose "severe constraints" to development because of their high fire potential. This is the result of the fuel type and the southern aspect of the project area. The fire hazard is further intensified in these areas by development encroaching into existing natural areas that are prone to fire. Moreover, after a fire, an area may be stripped of important vegetation and soil components that slow surface water run-off and hold flow material in place, providing ideal conditions for the less obvious flood or debris flow hazards (see Photo 7). Wetland vegetation communities and rock outcrops pose "slight constraints" to development from fire.

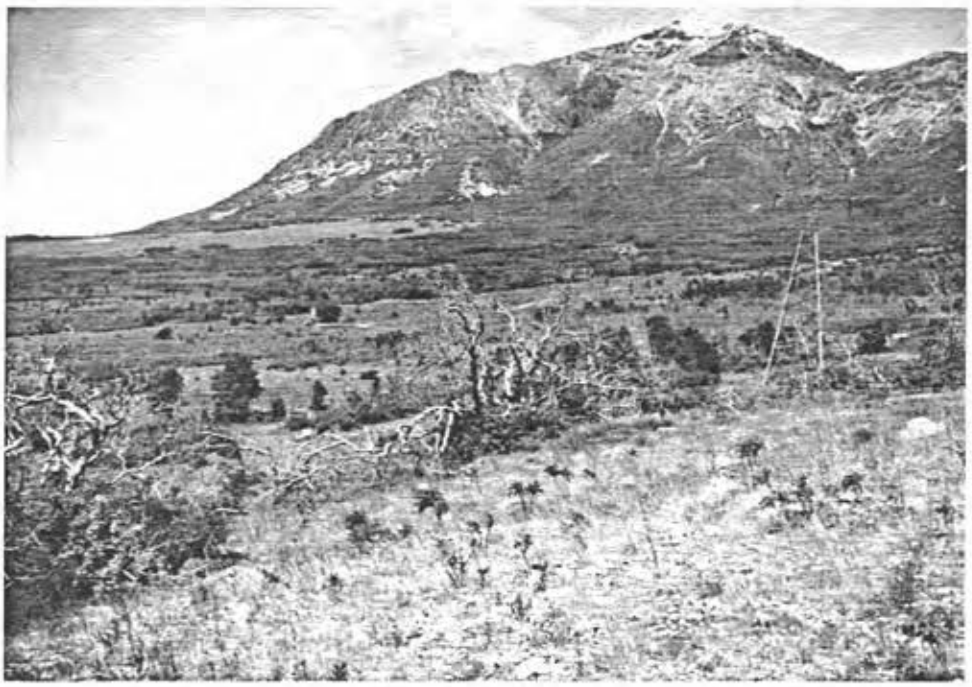

Photo 7. View of area burned (foreground) by wildfire in 1992 in the project area.

6.10 Utility and Parks

The Utility and Parks Inventory Map (see Figure C-20) shows the location of existing City parks within the project area and existing utility service (e.g., water, sewer, gas, telephone, and power) lines. The location of these features is used in planning for future development in the project area. Adequate utility services and parks must be located and integrated with existing resources before development is allowed to occur. Future locations of parks within the project area are addressed in the North Ogden City General Plan. A brief discussion of the utility service lines within the project area is provided below.

Culinary Water Supply

The City currently has culinary water facilities capable of providing service to the project area below 5,018 feet in elevation. The area below this elevation is, for the most part, developed into residential housing. The remainder of the project area above 5,018 feet in elevation (see Figure C-20), cannot be developed until new culinary water infrastructure is constructed. It should be noted that the area above 5,018 feet in elevation that will require City culinary water service is extensive.

The City has sufficient water rights to service the undeveloped portions of the project area; however, it will be necessary for the City to develop new culinary water wells in order to generate the required water supply. City ordinances stipulate that the City will only furnish water supply for inside (potable) home uses. Water supply for outside irrigation must be provided by a reliable outside entity (see the Secondary Water Supply Section below). Potential new culinary well sites have been located by the City and exploratory test wells suggest that there will be a large enough new water supply to sufficiently service the project area. The potential new wells will be constructed in the lower elevations of the project area where there is a higher potential of locating a reliable water supply. The City also constructed an unsuccessful test well in the upper elevations of the project area. Well testing has shown that the closer the wells are located to the valley floor, the better the chances of locating a reliable ground water supply for culinary water.

In addition to the new wells, it will be necessary for the new development areas to have a series of water storage reservoirs placed at elevations sufficient to provide adequate water pressure. Due to the steepness of the project area, it will be necessary for the City to separate the new water service areas into separate water service pressure zones. Approximately four new water pressure zones will need to be created to service the new development areas. Pressures in the new pressure zones will range between 40 pounds per square inch (psi) and 110 psi. New water storage reservoirs should be sized to provide a minimum of 400 gallons per day per residential connection plus an additional volume for fire protection purposes. Given the location of the existing distribution system and the location of new wells, it will be necessary to construct a series of booster pump stations to lift the water supply to the new reservoir locations. These booster pump stations will be designed to lift water between pressure zones as required.

In terms of culinary water service to future development areas above 5,018 feet in elevation, it is anticipated that infrastructure required to service this area will be financed by those developing the

property. The City is currently considering assessing a development impact fee for this area to generate funds for needed construction. Under this arrangement, the developer(s) would finance and construct the required water facilities and they would be reimbursed by the City when impact fees are collected as development proceeds. In addition, there is a possibility of the creation of a special improvement district where the City would construct the required facilities and each property owner within the service area would pay an annual prorated assessment to pay for the required facilities.

Secondary Water Supply

Existing City ordinances requires that all new development areas be serviced with a secondary water supply to be used for outside irrigation purposes. Due to the limited culinary water supply and the cost of providing this service, the City has instituted this requirement. The City recommends that all secondary water supply be provided by Pineview Water Systems. Currently, Pineview Water Systems does not have infrastructure in place to provide service for future development within the project area. Pineview Water Systems does plan to construct a pumping system that would transfer water from the Willard Canal to the Ogden/Brigham Canal together with the purchase of water supply (3 acre feet per acre of irrigable land) from Willard Bay through the Weber Basin Water Conservancy District. When this project is completed, water supply can be made available to the project area; however, Pineview Water Systems would still need to construct piping systems, pumping stations and reservoirs to provide secondary water service. Until such time as Pineview Water Systems can provide secondary water service, the project area cannot be developed.

Sanitary Sewer Service

The City plans to service the project area with a separate sanitary sewer outfall system that was constructed as part of the Lakeview Heights development. This outfall line was designed with a capacity to service most of the northern portion of the project area. The City Engineer has completed a study of the capacity of this outfall system (complete with inflow from existing development) and it appears that the existing outfall line has sufficient capacity to service the estimated number of residential units anticipated by this study (see Section 8.0). Sanitary sewer service, therefore, should not be a limiting factor to development of the project area.

Electrical Power Service

Electrical power service to the project area is provided by the Utah Power and Light Company. Existing City ordinances require that electrical power lines, which service residential areas, be buried in new developments. Consideration should be given to locating service lines away from fault hazards.

Natural Gas Service

Natural Gas Service to the project area is provided by Mountain Fuel. Consideration should be given to locating service lines away from fault hazards.

Telephone Service

Telephone service to the project area is provided by U.S. West. Consideration should be given to locating telephone service lines away from fault hazards.

7.0 ALTERNATIVE DEVELOPMENT SCENARIOS

One method used by planners to determine where development should occur is called the "Overlay Process." The Overlay Process is a dynamic process allowing community members to make planning decisions based on prioritized concerns. Furthermore, development can be directed into the most suitable (i.e., least resource constraining) areas.

In the Overlay Process, as used for this project, a number of Resource Constraints Maps were combined and superimposed on the Base Map, resulting in the Composite Constraints Map (see Figure C-21). Areas of severe constraints for any of these resources were allowed to override areas of moderate and slight constraints. The Composite Constraints Map indicates where the combination of selected resources (i.e., Faults, Hydrology, Debris Flow, Slope, Soils, Landslide, and Avalanche) would pose severe constraints to development.

The information from the Composite Constraints Map was used to generate three conceptual alternative development scenarios. The conceptual nature of the alternative development scenarios is intended to represent a spectrum of possible futures for the North Hillside area, given general guidelines regarding conservation goals. These scenarios are:

- Development Scenario A: Maximum Development;
- Development Scenario B: Development with Conservation; and
- Development Scenario C: Maximum Conservation.

Each Development Scenario Map includes four Land Use Categories: Existing Developed Lands; Future Developable Lands; Future Conservation Lands; and Non-developable Lands. The areas included in these Land Use Categories vary with each development scenario. Each development scenario is briefly described below. A summary comparison of the Land Use Categories for each development scenario is provided in Table 2.

7.1 Development Scenario A

Scenario A represents maximum development of land, where all areas in the project area would be available for development (see Figure C-22), except those areas classified as "non-developable" because of slope constraints. Lands classified as "non-developable" are currently protected under North Ogden City ordinances, which prohibit development on lands with slopes steeper than 20 percent.

Table 2. Comparison of the Land Use Categories for each Development Scenario.

LAND USE CATEGORIES	DEVELOPMENT SCENARIOS					
	ACRES A		ACRES B		ACRES C	
Existing Developed Lands	18%	494.8	18%	494.8	18%	494.8
Future Developable Lands	56%	1,511.5	37%	996	16%	447
Future Conservation Lands	0	0	19%	515.5	40%	1,064.5
Non-developable Lands	26%	709.2	26%	709.2	26%	709.2
TOTALS	**100%**	**2,715.5**	**100%**	**2,715.5**	**100%**	**2,715.5**

7.2 Development Scenario B

Scenario B represents a balance between conservation and development in the project area (see Figure C-23). Areas with the most "severe constraints" on development, as determined using the Overlay Process, would be protected as "future conservation lands." These "future conservation lands" would include setbacks from major stream channels and fault zones.

7.3 Development Scenario C

Scenario C represents maximum conservation of land within the project area (see Figure C-24), where development would occur only in those areas exhibiting the least constraints to development. The "future conservation lands" would protect the most sensitive portions of the project area, next to the steep mountain fronts. Scenario C would include setbacks from major stream channels and fault zones and would also protect areas severely constrained by debris flows, landslides, and avalanches.

8.0 PREFERRED DEVELOPMENT MASTER PLAN

Alternative Development Scenario B was chosen by the City to be the preferred Development Master Plan because it represents a compromise between resource conservation and land development. As the preferred Development Master Plan, Scenario B was further analyzed for appropriate development density and transportation options. The development density and transportation options are described in detail in the following sections.

8.1 Development Master Plan: Density

Several options for Development Scenario B were analyzed to determine the appropriate densities of development for different portions of the project area. The selected densities for developable

lands under Development Scenario B are based on different residential lot sizes. The Density Map (see Figure C-25) uses three different residential lot size densities (0.25 acre density, 0.5 acre density, and 1 acre density). At the densities shown on the Density Map, this scenario can potentially accommodate up to 2,018 dwelling units within the project area.

It is expected that development within "future developable lands" as shown on the Density Map will be clustered to provide for meaningful open space and conservation lands between developments. Although specific lot sizes may vary, the recommended densities for a given parcel of land should not be exceeded. Future conservation lands are expected to be protected through donation to the City, inclusion in conservation easements, or maintained through a homeowner's association in perpetuity. Conservation lands may be used by the City as future city parks. Anticipated future city parks are shown in the North Ogden General Plan.

8.2 Development Master Plan: Transportation

The conceptual Transportation Map for Development Scenario B (see Figure C-26) shows existing and proposed major roads that link the project area to surrounding areas. These major roads will funnel traffic to, from, and through the project area. Other collector roads that link future developable lands to the major roads outside of the project area are shown in the North Ogden General Plan.

9.0 DEVELOPMENT GUIDELINES

Development guidelines are provisions that should be incorporated into each development proposal submitted to the City. They include specific actions, designs, or criteria to be followed when developments are proposed within the project area. These guidelines are discussed by resource category.

9.1 Landslide and Avalanche

Guidelines for development in the landslide and avalanche hazard areas include the following:

- Avoid building public places such as schools or auditoriums in the landslide and avalanche severe constraints areas (i.e., within 0.5 mile of mountain front). Prevent construction of all buildings within 100 feet of drainage channels.

9.2 Debris Flow

Guidelines for development on alluvial fans include the following:

- Preserve existing vegetation within drainage channels to act as a trap for debris flow sediments.
- Provide appropriate setbacks (minimum 100 feet) from drainage channels for new development.

9.3 Faults

Guidelines for development within fault zones include the following.

- Require that all utilities that cross fault zones be designed to withstand earthquake induced ground movement.
- Prevent construction of dwellings within 175 feet of faults or landslides.

9.4 Hydrology

Guidelines for development within sensitive hydrologic areas include the following:

- No modification of natural drainage channels. Drainage channels should maintain their natural pattern, profile, and geometry. Entrenching drainage channels and riprapping channel banks must be avoided.
- No development within 100 feet of drainage channels or areas that flood periodically.
- All drainage channel crossings should include oversized culverts so that there are no channel width constrictions (i.e., make culverts wider than bankfull width).

9.5 Recharge Areas

Guidelines for development within recharge areas include the following:

- Encourage open channel designs for stormwater management to slow water movement and allow for infiltration. This may include limiting development of curb and gutter in favor of a system of open channels that carry stormwater runoff to detention basins for infiltration.
- Maintain natural infiltration rates wherever possible (particularly important at the mouth of the canyons where streamflow goes underground).

- Stormwater treatment and infiltration areas (i.e., small basins) should be developed where impermeable surfaces associated with developments (e.g., roads, driveways, rooftops, etc.) impact infiltration.

9.6 Vegetation and Wildlife

Guidelines for development in sensitive vegetation and wildlife habitats include the following:

- Development should avoid fragmenting large, contiguous patches of wildlife habitat, especially oak-maple shrublands. Residential development and road and trail systems should be constructed away from these areas. When unavoidable, development should occur in "sacrifice areas" on the fringe of existing patches.

- Design a transportation network with a minimum number of roads and drainage channel crossings.

- Maintain as much existing, native vegetation as possible.

- Direct trails and roads away from sensitive wildlife areas in the project area. Sensitive wildlife areas should be protected with a minimum buffer (approximately 50 feet) to avoid disturbance to resident wildlife.

- To minimize deer/vehicle collisions, post signs to warn drivers of the presence of deer and plant vegetation along roads that are undesirable to deer for forage.

- Incorporate cluster development principals to maintain habitat for species that require large tracts of lands for "home ranges."

- Recognize important resources, including wildlife habitats, outside and adjacent to the project area. Trails and road systems should be directed away from these resources.

- Designate "open spaces" to include wetland areas. Prohibit grazing in wetland areas to allow for restoration of natural conditions.

9.7 Fire

Guidelines for development within fire hazard areas include the following:

- Thin and clear native vegetation of all dead material to not less than 30 feet around all structures.

- Keep fuel breaks pruned and free of dead vegetative material.

- Dispose of all vegetation removed during construction by chipping, burial, or removal.
- Excess flammable construction material shall be disposed of by burial or removal.
- Remove combustible trash and rubbish from the project area immediately.
- Provide one, exterior, freeze-proof, water tap far enough from the dwelling to permit hose protection to all sides and roof of the dwelling at each lot during a fire.
- Remove all vegetation and other fuels within 15 feet of all chimneys, stove pipes, or outdoor fireplaces.
- Construct roof and exterior structures of fire resistant materials such as rag felt roofing, gravel, tile, slate, asbestos cement shingle, sheet iron, brick, aluminum or fire retardant-treated wood shingles or shakes.
- Construct structural projections such as balconies, decks, and roof gables of fire resistant materials or materials treated with fire retardant chemicals.
- Screen or close off roof, attic, and underfloor openings.
- Equip all chimney or stovepipes burning solid or liquid fuels with screens over the outlet of 16 gauge wire and have a maximum of 0.5 inch wide holes.
- Prohibit flat top structures with horizontal roofs in areas where vegetation is higher than the roof.

10.0 RECOMMENDATIONS

The following represent BIO/WEST Inc.'s (BIO/WEST) recommendations to the City as a result of the findings of the North Hillside Development Study.

- In order to insure the sustainability of the North Hillside project area, City officials must require that all development proposals incorporate the enclosed findings and development guidelines. However, information contained herein should be refined as new information becomes available. City officials should be firm in their requirements that all proposals address the potential constraints presented in this study, yet flexible in their acceptance of proposals that present innovative and creative responses to those constraints.
- Implement recommendations from the pending Guidance Document for Alluvial Fan Floodplain Management to be published by Utah Division of Comprehensive Emergency Management.

- Construct appropriately sized debris flow retention basins between areas of existing and future development within the project area to protect those developments that did not preserve drainage channel areas.

- Require a study by a professional geologist to locate specific faults and recommend appropriate setbacks for development proposals on site.

- Adopt building codes sufficient to protect buildings from earthquake forces.

- Analyze the value and function of each drainage channel and floodplain prior to development and adopt appropriate setbacks for each development proposal.

- Develop fertilizer and pesticide restrictions/guidelines to protect water quality.

- Enforce leash laws for dogs and hunting regulations to minimize harassment and illegal killing of wildlife (especially deer).

- Make modifications to existing zoning ordinances to provide for the following:

  (1) Allow for Open Space that is either dedicated to the City, donated to a trust, or maintained through a homeowner's association, in perpetuity, where constraints prohibit development (i.e., conservation areas).

  (2) Allow for flexible housing configurations that require closer grouping of homes on smaller lots resulting in more Open Space and conservation of sensitive resource areas. The intent should be to increase Open Space within proposed developments, not to increase density over those shown in the North Ogden General Plan and in this study. This practice will require less roadway and utility facilities and thus reduce initial development costs and long-term maintenance costs.

  (3) Encourage landscaping with native plant species in residential neighborhoods to maintain visual quality and reduce water consumption. Provide literature to educate new residents on native plantings, including suggestions on plants that are undesirable to deer to minimize anticipated conflicts. Include the names of local nurseries that provide native plants.

  (4) Prevent commercial development, feedlots, septic tanks, or underground or above ground storage tanks from being allowed in the project area to protect water quality.

(5) Prevent home-based or backyard businesses that use chemicals (i.e., auto repairing, auto body painting, chrome plating, pest management, etc.) from being allowed in the project area to protect water quality.

(6) Limit access to collector roads within the project area. Modify subdivision ordinances to limit homes from fronting on collector roads with driveway access. Where possible, driveways should be located on local roads perpendicular to collector roads. This practice will increase safety on collector roads and maintain efficient movement of vehicles throughout the project area.

11.0 ACKNOWLEDGMENTS

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Scott C. Russell
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12.0 LIST OF PREPARERS

Name	Position	Responsibilities
Christopher Sands	Project Manager	Project team coordination and supervision of project activities.
Christy Calvin	Landscape Architect	Project mapping and document preparation.
Darren Olsen	Hydrologist	Data collection for mapping and write-up of Hydrology Section.
Steve Ripple	Botanist	Data collection for mapping and write-up of Vegetation Section.
Becky Yeager	Wildlife Biologist	Data collection for mapping and write-up of Wildlife Section.
Wes Thompson	Geologist	Data collection for mapping and write-up of Geomorphology, Geology, Faults, and Recharge Sections.
Marilee Dalton	Cartographer	Project Mapping.
Krista McHugh	Editor	Document layout and development.
Jay Nielson, Community Planning Consultant	Project Planner	Value Statements Section, Alternative Development Scenarios, and Master Plan Development.

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APPENDIX A:

Summary of Public Workshop Comments

Preliminary Findings of the North Hillside Development Study were presented to the citizens of North Ogden on November 13, 1996, at a public workshop held in the city offices. Representatives from North Ogden, the PWG, and BIO/WEST were available to answer questions. In addition, comment forms were available for citizens to fill out. Over 100 individuals participated in the public workshop. A total of 36 comment forms were filled out and sent to the project team. A summary of the comments received is provided below, followed by the number of commentors in parentheses. Copies of each of the comment forms as well as the public workshop sign-in sheets are also provided.

GENERAL COMMENTS

WATER

- Secondary water for new developments would put major constraints on existing systems (3).
- Supplying water to new developments would cost current residents (2).
- Existing open space (undeveloped area) is needed for recharge of water for current residents (2).
- Does city have the water rights to support an additional 2,000 to 2,600 dwellings? (1)

FIRE

- Fire is a concern, and associated flooding and mudslides that occur after a fire has removed vegetative cover (1).

FLOODS AND MUDSLIDES

- What types of flood sewers (detention basins) are planned for future developments? (1)
- New developments will disrupt current drainage and recharge patterns and cause flooding in existing developments (4).
- Concern that development will be continued to be allowed in the area of the recent slide (1).

WILDLIFE

- Scenario C is preferred because it puts less pressure on wildlife (1).
- Increased development would force wildlife into less desirable feeding and nesting areas (5).

ROADS AND INFRASTRUCTURE

- Roads are already congested, particularly 400/450 East (4).
- Are proposed roads coordinated with Pleasant View and Weber County? (1)
- Major roads (as shown conceptually) present a safety concern to our children (1).
- Crime increases close to major roads (1).
- Concern over whether existing infrastructure (police and fire) would be adequate for new developments (1).
- Establish a line and prohibit development above the specified line (elevation) (1).

AIR POLLUTION

- Emissions from contractors' vehicles (diesel powered) pollute air in surrounding neighborhoods (1).
- Increased traffic resulting from development will increase noise and air pollution (1).

VISUAL

- Preserve a mountainside covered with trees and grass and views of Ben Lomond, not houses and lights from houses (4).
- There should be more concern for quality of life issues, like the loss of rural character in our city (1).

PARKS

- Appropriate public access (will major roads have to be crossed by children?) to city parks should be determined before land is designated as a "park." (1)

ECONOMIC

- New houses decrease the market value of previously owned homes (1).
- No industry to support the tax base in North Ogden, except homeowners, therefore taxes increase with development (2).
- Concern with motivation behind development, only developers will benefit and residents left with the mess (2).
- Who pays for the new roads that will be required by new developments? (1)
- Homeowners should assume all risk in the event of a hazard. The city should not be responsible (2).
- Impact fees should be levied on all new houses (1).
- Concern that city will disregard needs of small property owners and cater to large developers when final decisions are made concerning what areas of the North Hillside Development Study project area are to be developed (4).

MISCELLANEOUS

- Planning/Zoning must be followed to protect the environment and must not be influenced by the dollar or who is in power (3).
- Citizens would like to be kept informed of future changes affecting growth in their city (1).
- The decision about future development should be made by a vote on a ballot initiative (1).
- What is the process for deciding which scenario will be used? (1)
- Does the city have any type of general plan (1).
- How do proposals fit with existing masterplan? (1)
- Many of the maps seem to be outdated, particularly those showing locations of roads (1).
- Level of detail is too broad--good lots (on my land) don't show up (1).
- Concern over what appear to be conflicting interests (financial gain in North Hillside project area) among PWG member(s) (1).
- Study should have been done 5 or 6 years ago before all of the land speculation (1).
- Why have building permits been issued on lands with steep slopes (20%-30%) in the past? (1)

- New development would increase the already high number of power outages experienced by the city (1).
- Concern that severe constraint categories may be too strict, thereby eliminating "common sense" in decisions about future land use in the North Hillside Study project area (1).

SCENARIO COMMENTS

SCENARIO A (2)

- A scenario somewhat less restrictive than Scenario B is recommended.

SCENARIO B (1)

- Chance of fire and avalanche is too high in Scenario B (remember recent mudslides).

SCENARIO C (9)

- A scenario somewhere in between Scenario B and Scenario C is recommended.
- Size of lots should be increased.

NO MORE DEVELOPMENT (6)

- No more development--look at the faults in the North Hillside area.

CONSERVATION LANDS

- Scenario C is preferred because more conservation lands are preserved (1).
- How will land owners be compensated for conservation lands? (1)
- City should provide public access to public lands (e.g., parking for those who want to climb Ben Lomond (1).
- Trails and greenways are not addressed in the study (3).
- Non-developable lands still provide opportunities for parks, golf courses, hiking trails, etc., that have not been considered (1).

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: [redacted]

Address: old address 2091 N 1375 E

Street / PO Box: 1949 E 2525 N

City / State / Zip: Ogden, Ut 84414

Representing (optional): **Self** V **Other (please specify)** _____

Issues or Concerns:

Concerned that they will allow housing in area of the debris basins from slide Dec 91.

These maps are very informative!!!

General Comments and Recommendations:

glad to see that city did this studies and hope people will be informed of this important information and findings so they will be able to make an informed decision of where to build homes. We were not and had to go through a horrible experience because of it.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: LISA TREASE

Address:

Street / PO Box: 835 E. 3200 N

City / State / Zip: NORTH OGDEN UT 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

WATER IS A BIG CONCERN. WHERE WILL IT COME FROM AND HOW WILL IT BE STORED.
PARKS, RECREATION FOR ALL THE PEOPLE.
POLICE PROTECTION, FIRE ETC. WHAT WILL HAPPEN IN 10 YRS WHEN NEW PEOPLE ARE RUNNING THINGS AND THE ALMIGHTY DOLLAR SPEAKS AGAIN.

IMPRESSED WITH STUDY LOTS OF HELP.

General Comments and Recommendations:

PLEASE FOLLOW ADVISE FROM THE STUDY AND CONSIDER SLOWING GROWTH IN THE AREA

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: L. BARTHLOME

Address:

Street / PO Box: 540 E. 2800 N.

City / State / Zip: NO OGDEN

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

GOOD DISPLAY & POSTERS —

I HOPE THE CITY FOLLOWS THROUGH

ON ADEQUATE ZONING — TO PRESERVE

THE HILLSIDE & NOT LET IT GET

OVER BUILT.

General Comments and Recommendations:

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

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North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Delore Eckersley

Address:

Street / PO Box: 710 E 3225 N.

City / State / Zip: N Ogden 84414-7505

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

Primary concern is the loss of Rural Character of N. Ogden.
To date little planning for green areas or maintaing the current lifestyle.
Secondly, water run off + flooding of those below proposed developed areas.
Third but not last + projected population growth is a concern.

General Comments and Recommendations:

More planning + input from non-Developers. More concern for quality of life issues.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Wm Peterson

Address:
Street / PO Box: 962E 2750N
City / State / Zip: N. Ogden Ut 84414

Representing (optional): Self ✓ Other (please specify)

Issues or Concerns:
How does this PLAN OR PROPOSED PLAN Fit with "OLD" EXISITING MASTER PLAN? Please Find A COPY And Dust it OFF, lets see Where We Thought We Were going!! DON'T give IN to Special INterest GROUPS At the Expense OF those Who have Lived here FOR Serveral years And Expect to MAintain A North OGDEN Quality OF Life!

General Comments and Recommendations:
AT This Point I FAVOR SCENARIO "C."

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

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North Ogden City, Utah

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: DON GNEIDING

Address:

Street / PO Box: 3387 N, 375 E

City / State / Zip: NORTH OGDEN, UT 84414

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

GENERAL: OVERGROWTH IMPACT ON EXISTING DEVELOPMENT

SPECIFIC: TRAFFIC LOAD IS DIRECTLY PROPORTIONAL TO HOME DEVELOPMENT I.E. THE MORE HOMES, THE MORE TRAFFIC

SCENARIO "A", MAXIMUM DEVELOPMENT WOULD HAVE THE SEVEREST IMPACT WITH MAXIMUM TRAFFIC.

TODAY, NORTH WASHINGTON BLVD (400/450 E) IS CONJESTED DUE TO LAKEVIEW HEIGHTS DEVELOPMENT AND THAT ABOVE; THIS CONDITION WILL ONLY WORSEN

General Comments and Recommendations:

RECOMMEND SCENARIO "C" MAXIMUM CONSERVATION, I.E. LEAST DEVELOPMENT TO BRING ABOUT LEAST TRAFFIC CONJESTION.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

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13 November 1996 (5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: LINDA WADLEIGH

Address:
Street / PO Box: 165 E. 3275 N.
City / State / Zip: N. OGDEN, UT 84414

Representing (optional): Self X Other (please specify) _____

Issues or Concerns:

My major concern is development that may occur beyond the capacity of the resource to support - such as the water resource. I also believe we need these open lands to provide water for existing development and wildlife habitat.

Another concern I have is that developers - or someone with a financial interest in the outcome of the study ~~were~~ were allowed to serve on the PWG

General Comments and Recommendations:

I don't believe scenario B is the appropriate selection before public input is received. Please don't make up your mind yet. Also, is the lot size based on what the infrastructure can handle? Certainly lot size can easily restrict development, do try 1/2 or 1 acre as a minimum. Does the city honestly have the water rights to support another 2,000 to 2600 dwellings?

Additional Comments:

My general recommendation is to set aside all the remaining land and save tax dollars on roads, sewer etc..... but I doubt that is realistic. As an alternative, I'll be happy to work on a compromise with developer

Best scenario - the city should purchase all private lands there with the help of a public land trust, and then leave it alone!

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

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North Hillside Development Study

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13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: John R. Bockas
Tammy Bockas

Address:
Street / PO Box: 3095 N. 100 E.
City / State / Zip: N. Ogden, Utah

Representing (optional): Self Y Other (please specify) _____

Issues or Concerns:

Environmentle Impact: Is This As Safe A Project As you have illistated. If so from the way I would view it it appears their would not be enough good Development to make a protected difference Both water and land would be drastic ly overcome by the "mass" home development! Is This A Win-Loose situation. As

Win Developers
Loose Community

General Comments and Recommendations:

1. Don't Develope Anymore!
2. Limit Building permits to about 75 permits a year.
3. Force an impact fee on New Houses being built. Say about $5000 1/4 acer 5000 1/2 acer lots. 20000.00 1 acre lots. That to differ people who just want to build for profit & leave. Plus it'll Keep property tax down & the rest of us who choose to buy existing homes can keep a good quality of life, plus it'll help the school problem.

Community

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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North Hillside Development Study

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North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Edward M Sager

Address:
Street / PO Box: 1363 E 2600 N
City / State / Zip: N. Ogden, UT 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

1 Scenario D is not presented as an option, DO NOTHING!
2 Liability of city ~~for~~ to home owners developing / residing in the marginal and hazardous areas. Given that the city allows and approves the development, is city liable in the event of earthquake/quake, avalanch, flood, etc?
3. No trail or green way access provided or considered. Existing trails are not considered a factor or resource to be addressed in each Scenario.

General Comments and Recommendations:

1 Before any development or plans, greenway access and trails must be provided.
2. Given only the three stated scenarios, I option for Scenario C.
3. Homeowners assume all risk due to location of home(s)/development.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: James/Deborah Barnes

Address:

Street / PO Box: 1081 E 3400N.

City / State / Zip: N. Ogden UT 84414

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

Concentration of homes (both present & conceptual) does not warrant a major road to be developed. North Ogden prides itself on being a "family" community but a major road presents a safety concern to children. It is a known fact also, that crime increases close to major roads.

General Comments and Recommendations:

Planning Commission needs to re consider the transportation plan to meet the needs of the community!!

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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NORTH OGDEN CITY
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Public Workshop Comment Form

Name: Dan Carter

Address:

Street / PO Box: 113 W. Alberta Dr

City / State / Zip: No. Ogden, Ut.

Representing (optional): Self ____ Other (please specify) Whole family ± Norma Bailey

Issues or Concerns:

1. Traffic Problems acute Now (why more development.
2. Hydralic problems w/our well the last time a large development well & Storage tank Placed on the Hill above us and guess who Layed out $3000.00 to drop a New pump, & we Can't go any lower because of the problems w/ stacked Casings Catching the Submersible pump. why do we pay & you don't?

General Comments and Recommendations:

3. Who pays for all of these roads (Collector Roads) mainly to handel all this growth.

General Comment: It seems to me Big money Interest are Talking.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
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Logan, Utah 84321

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Public Workshop Comment Form

Name: DAVID GRIM

Address:
Street / PO Box: 634 E 2750 N
City / State / Zip: N. Ogden, Ut 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

Due to the extreme or near extreme conditions of steep slopes, unstable soil and faults, fire Dangers, water and mudslides of this entire area, I highly recommend 'Scenario C' Maximum Conservation'

General Comments and Recommendations:

Other benefits of Option 'C' is less pressure on the remaining wildlife in this area, more 'green' space, less dangers to a community as a whole, less city services required to maintain such a community and a MUCH! more Beautiful View of Mt. Benlomond!! Please Don't ruin the beautiful feel and environment of North Ogden; many times now, in our times:: more is definitely less!

Additional Comments:

That is a real danger!!

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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North Ogden City, Utah

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Public Workshop Comment Form

Name: Lynn & Mary Ann Mikkelsen

Address:
Street / PO Box: 2749 N 850 E
City / State / Zip: North Ogden, 84414

Representing (optional): **Self** ____ **Other (please specify)** 2 Residents

Issues or Concerns:

We believe the city ought to provide public access to the mountains. Areas East of North Ogden have been blocked to prevent access & heated discussions have occurred when we parked on the public road to climb the mountains East on N. O.
We were ~~shot~~ even shot at once.

General Comments and Recommendations:

Allow public access & parking to those who want to climb Ben Lomond. This has been used by the Boy Scouts for years & enjoyed by others that like the out of doors. Please don't block us & our children from using public land by putting houses on all the land. Land owners will have access but not the general public if access is not planned.
Scenario B or C is acceptable to us.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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North Ogden City, Utah

13 November 1996
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Public Workshop Comment Form

Name: KEN JACKSON

Address:

Street / PO Box: 2688 Fillmore Ave

City / State / Zip: OGDEN, UTAH 84401

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

1- The level of detail is broad and does not identify some ideal building lots that exsist on my lands.

2- The "Non-Development" lands provides opportunities for "Parks", "Golf Courses", "Hiking Trails", etc. that have not been thought through at this point.

General Comments and Recommendations:

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Jed McCamick

Address: 3333 N. 425 E.

Street / PO Box: _____

City / State / Zip: N. Ogden

Representing (optional): **Self** X **Other (please specify)** & Lakeview Heights & Pebble

Issues or Concerns:

Scenario A, is fine,
Scenario B is OK if Lakeview Heights and Pebble Beach can maintain the original amount of lots approved on the conceptual proposal

General Comments and Recommendations:

Accept Scenario A, as our guide

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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NORTH OGDEN CITY
North Hillside Development Study

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13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Jarrel White

Address:

Street / PO Box: 2281 N 1500 W

City / State / Zip: Clinton ut 84015

Representing (optional): **Self** X **Other (please specify)** & Development on the Ground Below N/O. Ogden Divide

Issues or Concerns:

SCENARIO A IS the BEST USE OF the Ground.

SCENARIO B IS USING TO MUCH Ground on Conservation - YOU ARE Completly DESTroying the USE of the Ground Below the NO. Ogden Divide

General Comments and Recommendations:

Accept Scenario A

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
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Logan, Utah 84321

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Wes Doughel

Address:

Street / PO Box: 2815 N 700 E

City / State / Zip: N. Ogden Ut, 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

Frontal Projects = Erosion, Water Storage, Wildlife will all be effected if this Development Project goes into Low, We don't need anymore Low Development Projects — We should All Consider The Fault in this area

General Comments and Recommendations:

Why not Have This on a ballot So We Can Vote on this Project

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
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Logan, Utah 84321

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Clark Young

Address:

Street / PO Box: 2835 N. 700 E.

City / State / Zip: N. Ogden Ut. 84414

Representing (optional): **Self** X **Other (please specify)** June Young

Issues or Concerns:

We are opposed to any more development beyond that which is all ready there. Going further upon the foot hills will create water problems, snow problems, flood problems and many other not mentioned here. If this is approved I recomend the size of the lots be increased substanebly.

General Comments and Recommendations:

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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Public Workshop Comment Form

Name: Don & Gwen Lee

Address:
Street / PO Box: 391 E. 3550 No.
City / State / Zip: No Ogden, UT 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

Concern - We live here, developers don't. Protections should be in place to avoid developers coming in, making their profit and leaving us with a problem.

Concern - The terrain is fragile. Careful planning must be done and followed to preserve and protect.

General Comments and Recommendations:

A large amount of detail information has been gathered and presented. A good job well done!

To develope the area and to protect it, we feel that the plan should fall between scenarios B & C - A good conservative approach to start with.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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Public Workshop Comment Form

Name: Paul Schlesey

Address:
Street / PO Box: 3179 N. 1075 E.
City / State / Zip: No. Ogden, UT 84414

Representing (optional): Self X Other (please specify) _____

Issues or Concerns:
Environmental Pollution: air - contractors' vehicles which are mostly diesel powered, apparently have no state ~~of~~ Utah emissions restraints, so the air in adjacent neighborhoods is filthy with diesel emissions. Increased traffic after residential development will enhance the pollution problems. Noise pollution: caused by the some & future vehicular traffic mentioned above. Light pollution: more houses, more light reflecting off the dust particles in the air & creating more haze. Ecological pollution: where are the current wild life residents going to find new ~~homes~~ Financial imbalance: for every new home built & sold, one less "previously-owned" home becomes unsellable. Aesthetic pollution: Choose: a mountainside covered with trees & grass - or - ~~(Any new development presents a little)~~ a mountainside covered with houses, streets, light posts, etc. Consider also that the number of power outages North Ogden residents experience every year will undoubtedly be increased in frequency & length with more development.

General Comments and Recommendations:

(over)

Additional Comments:

Any new development presents no apparent benefits to residents. Indeed, our environment, isolation & security are deteriorated. We'll have to pay higher taxes (no doubt) to "enjoy" this degradation of our community.

Bottom Line: Development sucks! No more development should be allowed.

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Doug Coady

Address:
Street / PO Box: 2058 Byron Circle
City / State / Zip: West Valley City Ut. 84119

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:
What is the process for deciding which development scenario will be used?
How will landowners be compensated for "green" area designation? taxed the same?

General Comments and Recommendations:
Good comprehensive study - needed to be done

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Don Sears

Address:

Street / PO Box: P.O. Box 1762

City / State / Zip: Park City, UT. 84060

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

I think a scenario somewhat less restrictive than Scenario B would be appropriate. I am not a "developer" but I have been paying taxes on my property for 23 years and have never been told of potential problems before. the only thing I have been told was by the assessor, who told me how valuable the land was, and would be -

General Comments and Recommendations:

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

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Logan, Utah 84321

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Ted Thompson

Address:

Street / PO Box: 807 E 3100 No

City / State / Zip: Ogden, Utah 84414

Representing (optional): **Self** ___ **Other (please specify)** _____

Issues or Concerns:

General Comments and Recommendations:

Leave it as is.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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NORTH OGDEN CITY
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North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Anna Kershaw

Address:

Street / PO Box: 1296 E 3100 N

City / State / Zip: No Ogden

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

Why was building permits issued on areas that had 20-30% slope? Obviously $ changed hands, nobody cared.

General Comments and Recommendations:

The council should have done this survey 5-6 years ago before all this land spec. got started.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices, North Ogden City, Utah

13 November 1996 (5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Lamar Hansen

Address:

Street / PO Box: 80 So. 700 E.

City / State / Zip: Bountiful, Utah 84010

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns: We would like to see some development on our land. All constraint maps show our property as non-developable. However, there is a water storage tank above us - so we could get water. And, while much of our lot is too steep to develope, the 200 feet that falls within the City Limits is level enough for houses.

General Comments and Recommendations:

Keep us posted.

Thanks

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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NORTH OGDEN CITY
North Hillside Development Study

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(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: REGAN HOWELL 21yrs.

Address:
Street / PO Box: 3122 N. 1050E
City / State / Zip: N. Ogden

Representing (optional): Self X Other (please specify) _____

Issues or Concerns:

There is absoluthy no need or reason for developing the mountain side.

The only people benefiting this development is the developers - The city of N. Ogden will gain nothing good from this development - NOTHING!

We must not destroy the very reason we all moved here in the first place! No Development

General Comments and Recommendations: Scenario C

MAXIMUM / CONSERVATION

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

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NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: JONNIE PARKER

Address:
Street / PO Box: 4920 N. Burnham DR.
City / State / Zip: Pleasant View Ut. 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

General Comments and Recommendations:

With looking at the development scenarios scenario "C is the best for the North ogden community." Maximum conservation is the way to go. It would be sad to look up at Benlomand and see houses, houses, houses. We need to leave some land.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Mike & Hayden Schmidt

Address:
Street / PO Box: 745 East 3225 North
City / State / Zip: North Ogden, UT 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:

Water - Recharge Areas - This is of critical concern. Use of secondary water for new developments would put major constraints on existing systems

Fire - Wildlife - Fire is a big concern because of the native plant life. Flooding & mudslides in the aftermath. What type of flood sewers are planned? Wildlife would be forced up into difficult feeding & resting areas.

Traffic - Already a problem. 400 E is tied with cars at peak periods. Some intersections could use signals during these periods.

Taxes - With major development the need for more schools, city staff, equipment, etc. How are these issue's being addressed?

General Comments and Recommendations:

The workshop was an excellent opportunity for information on development. Long overdue. It appears that North Ogden City has done very little in the planning of development. We feel it is critical to have a voice in the growth of this community. The presentation was informative & raised many concerns. We noticed that the maps used were outdated. Many streets now completed & new were not shown. It would seem important to work with up to date maps. Does the city have any type of General Plan?

Water - Always a problem. The homes under construction at this time are getting yard water from what source? If secondary how does this impact

Additional Comments:

the established neighborhoods? Requiring established areas to reduce water to accomodate new development is not appropriate. Neither is asking these established areas to look up to city water. That would be a financial burden. We think new development should not have secondary water.

Plan "C" seemed to be the best. Allowing development but keeping critical areas undeveloped. This town is no longer a sleepy quiet place. Construction is out of control. There is no industry here to support the tax base & this will fall on all homeowners. In order to keep this city a desirable place to live controlled development is the only answer.

We feel that the people of this city should be notified & kept informed of these issues on a regular basis. We also feel that as a community we should be able to vote & decide how our city is developed.

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

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NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Lucy Orton

Address:
Street / PO Box: 292 E. Elberta Dr.
City / State / Zip: Ogden, Ut. 84414

Representing (optional): **Self** X **Other (please specify)** _____

Issues or Concerns:
water run off from paving

General Comments and Recommendations:
with people building as far upon the mountain as is suggested will we have sufficient water to supply that many more homes in our desert area will we have sufficient moisture to keep our aquafers replenished
What is the earthquake danger from those homes. If an earthquake comes how many of our tax dollars will it take to rebuild those homes as disaster aids

over

Additional Comments:

Probably the most pressing problem to those of us now here is the water runoff. With so many homes and so much pavement the water will not be able to soak into the ground and will run down on us. Remember 1983 + 1984. Can there be sufficient storm drains built to prevent a repeat of that problem? That water needs to soak into the ground to replenish our supplies.

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

19 November 1996

1554 Meadows Connection
Park City, Utah 84098-5930
(801)649-3394

Mr. Dennis Shupe, City Administrator
North Ogden City
505 East 2600 North
North Ogden, Utah 84414

Re: North Hillside Development Study

Dear Dennis:

Congratulations to you and the City Council for commissioning the North Hillside Development Study. It shows me that all of you there in North Ogden are thinking ahead.

However, I do have a few comments, mainly of a general nature, that I wish to pass along to you, the City Council and the Planning Commission.

A cursory inspection of all the wall charts presented in the City's chambers last Wednesday would seem to indicate that if they were all overlayed atop each other, there probably wouldn't be much land at all that would be suitable for development given BIO/WEST's criteria for determining constraints.

This disturbs me particularly as it applies to the "small" 12.92 acre piece that I bought thirty years ago as a potential residential development parcel, heretofore considered to be a pretty benign parcel. BIO/WEST catogorizes my land as having no less than five "severe constraints" attach- to it. I disagree strongly with all five.

Although the City should be complimented for following through on the idea of a study, I would hope that the results of this study should not be put in concrete. There would seem to be a little common sense required in any decisions affecting the future of the entire land area studied.

I noted with interest a comment made by one of the BIO/WEST personnel with whom I talked last Wednesday. He said, "Yes, your parcel should probably be best planted in just grass." He didn't mention any "Keep Off the Grass" signs, but it was interesting to see his environmentalist proclivities rise to the surface.

Yours very truly,

James R. Mitchell

cc: BIO/WEST

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Bob Christoffersen

Address:
Street / PO Box: 279 Elberta Dr

City / State / Zip: ______

Representing (optional): Self ✓ Other (please specify) ______

Issues or Concerns:

Roads In North Ogden I think you are doing good! are all the new proposed roads coordinated with Pleasant View. & Weber County?

Run off water what goes in the ground about 50% will come up at the clay bank area that runs. about Elberta Dr. # 2800. Est Center of town

General Comments and Recommendations:

we had a good example in 1983 & 1984. A lot of water in basements. lets don't sacrifice the people below and water lily lots above.

Additional Comments:

North Ogden is a good city thanks for your help to keep it that way.

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices, North Ogden City, Utah

13 November 1996 (5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Linda Chaffee

Address:

Street / PO Box: 422 East 3550 North

City / State / Zip: No. Ogden, Utah 84414

Representing (optional): **Self** ✓ **Other (please specify)** _____

Issues or Concerns:

1) Park access to "City Park" needs to be determined.
Re: City Park located in Section #20 (north of Brigham-Ogden Canal)
If no access is appropriate for the public, then this area should not be designated as a "City Park" but instead as a "catch-basin area".

General Comments and Recommendations:

- Any new developments in the north/west section of North Ogden's hillside (ie: above #20 & #21 areas) should be low-density subdivisions. The vehicle traffic on 450 East should be kept to a minimum so that homeowners (adults & children) can enjoy a quiet residential neighborhood.
Also: Lakeview Heights Homeowner's Assoc. has parks on both the west & east sides of 450 East - children must cross this road to access these parks.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

For: Dennis Shupe

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Lee Wheeler

Address:

Street / PO Box: 417 East 3250 North

City / State / Zip: No. Ogden, Ut. 84414

Representing (optional): **Self** ✓ **Other** (please specify) Owen + Jeanette Finlay
3236 No. Holiday Dr.
No. Ogden, Ut. 84414

Issues or Concerns:

Please see Attached Sheet

General Comments and Recommendations:

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

North Ogden City
North Hillside Development Study

Dear sir:

Thank you for the opportunity to comment on the Development Study for North Ogden. We have lived in North Ogden on the bench for twenty-nine years and have loved the area and the city. We have witnessed the growth of the city and appreciate your concern for protecting the present home and property owners from potential problems that could come from the development of the North Ogden bench area.

We think that it is necessary to have this study completed and to get recommendations from those who are professionals in land development issues. It is necessary to protect everyone from the possibilities of land slides and flooding and to preserve our quality of water.

For over twenty years we have owned a two acre developable piece of property just below the higher bench. Our property borders the east side of the old reservoir and at the top of the eighty acres that is privately owned. The higher bench area is directly behind us. It is our understanding that Lakeview Heights owns the property on each side of the privately owned eighty acres. Our greatest concern now is that the city will come in and dictate to us that we will need more than an acre to build on or that we will not be able to use the land at all. The city has allowed Lakeview Heights to build at a fast pace the past few years and we certainly hope that the city doesn't now come in and tell the little guy or the small private owners that their property located in between Lakeview is not usable. It is our hope, that the city will not forget the smaller property owners when the final plans are drawn up.

Thanks for asking for our comments.

Sincerely

Owen F Linsley
Jeanette Linsley

Robert D. Wheeler
Joyce Wheeler

NORTH OGDEN CITY
North Hillside Development Study

City Offices, North Ogden City, Utah

13 November 1996 (5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: PHIL CHRISTOFFERSEN

Address:

Street / PO Box: 284 E 2900 N

City / State / Zip: No Ogden, Utah 84414

Representing (optional): Self ✓ Other (please specify) _____

Issues or Concerns:

Water, the last time No Ogden expanded up-ward new water storage tanks were required and pumps to supply these tanks — hence an increase in my water bill (double) If expansion is approved new water storage tanks and new methods required to fill these tanks will cost me and my neighbors a lot more money. That my selfish interests, I am also concerned about floods. Any more asphalt will enhance damage from floods. We have already spent dollars for catch basins etc. and the taxes enjoyed for flood control will not be returned to the tax payer but will continue to be collected.

General Comments and Recommendations:

Establish a line which will prohibit building or development above a certain elevation. (It's already to high) Snow removal and general street maintenance at the higher elevations cost more and take priorities away from the established community. I object. It may be heard but the wildlife at and above these elevations will not be heard.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Comment Form

Name: Dale G. Swenson

Address:

Street / PO Box: 3219 N. 425 E.

City / State / Zip: Ogden, UT 84414

Representing (optional): Self X Other (please specify) _____

Issues or Concerns:

Protection of water recharge areas, water drainage areas and potential slide areas is of critical importance. Maximum protection from potential problems in these areas would not only avert the potential for dire consequences, but at the same time preserve desirable open space. Such preservation would enhance the quality of life for residents and wildlife and maintain the beauty and aesthetic qualities of the hillside.

General Comments and Recommendations:

My son and I own a small piece of developable property in the lower area of quadrant 21. in the study area. We are in favor of only moderate development on the hillside and strongly urge the prohibition of development in critical areas. Any development above the bench line area toward the mountain base should be avoided.

The issues are complex. I would rely on the recommendations of professional planners such as Bio/West and urge city officials to act prudently on their recommendations.

Additional Comments:

Mailing Address:

Attn: Christopher Sands, Project Manager

BIO/WEST, Inc.
1063 West 1400 North
Logan, Utah 84321

Comment Forms Must be Received by:

November 22,1996

103 W/ couples ~~separate~~.

29

NORTH OGDEN CITY
North Hillside Development Study

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Attendance Roster

Name:	Address:
Robert Napoli	816 East 2750 No. Ogden, Utah
Henry Hall	807 E. 2750 No Ogden Utah
JOANNIE PARTER	4920 N. BURN HAM DR. PLEASANT VW. UTAH
REGAN HOWELL	3122 N 1050 E. N Ogden.
R Rondl Libby	470 E 3375 N N. Ogden
Marion E. Hoyt	3064 N 650 E " "
Steve & Penny Seely	3657 N Lakeview Dr N Ogden
Rand Campbell	9736 N 850 E
Dan Carter	113 (W) Elberta Dr No. Ogden
William Peterson	962 E 2750 N
Russ Shupe	
Doug Woody	2058 W. Byron Circle, West Valley 84119
James/Deborah BARNES	1081 E 3400 N., N. Ogden
Cheryl Gottfredson	379 E. 3325 N., N. Ogden
LINDA WADLEIGH	165 E. 3275 N., N. OGDEN
Tom & Sandra Grime	1895 E Stone Hollow Dr. Bountiful
Steve & Ann Rackham	2434 W. 3300 N.
Gary D Harris	967 E 1700 N
Martha Harris	233 E. 2625 N.
Spencer Wyatt	204 E. Elberta
Alice L Wyatt	204 E. Elberta Dr.
Drana Eckersley	710 E. 3225 N.
Peter Eckersley	710 E 3225 N.
DON GNEIDING	3387 N. 375 E
Lisa Incase	835 E. 3200 N North Ogden

NORTH OGDEN CITY

North Hillside Development Study

(28)

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Attendance Roster

Name:	Address:
DAVE HALL	160 E. 3250 N.
[illegible]	1296 E 3100 N 84091
JAMES R. MITCHELL	1534 ~~[illegible]~~ MEADOWS CONNECTION, P.C., UT.
Sharon Webb	2409 N. 400E. N.O. 84414
Karen White	2-5
K. L. Jones	2560 FRUITLAND DR
Jerry S. Webb	2409 N. 400 E
Earl + Joyce Clayton	216 E 3050 N.
Mary Ann Mikkelsen	2749 No 850 E —
Lynn Mikkelsen	" " " "
Jack McCormick	3333 N 425 E N. Og
[illegible]	678 W 2300 N No. Og
Lamar Hansen	80 So. 700 E. Bountiful, Utah 84010
Lucy Krieg	122 East 3400 North N. Ogden
[illegible]	2615 N 700 E N. Ogden
Sandy Heiner	1012 E 3100 N No Ogden
Mary Dunkson	3453 N 1000E N Og
Kathy Weaver	192 E. Elberta Dr. N. Ogden
[illegible]	1797 N 5900 W Ogden 84404
Donna C Stewart	" " " "
Paul Schleier	3179 N. 1075 E. No. Ogden 84414
Carol Nuske	3411 N 1000 E N. Ogden 84414
[illegible]	807 E 3100 No Ogden Utah 844[illegible]
Tammy & Randy Bastos	3015 N 100E ND Ogden 84414
Kyle & Chelsea Andrew	1296 E 3100 N No Ogden Ut 84414

NORTH OGDEN CITY

North Hillside Development Study

(11)

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Attendance Roster

Name:	Address:
JOE ROTTLETZ	1333 E. 2550 N. N. OGDEN 782-0628
Dale G. Swenson	3219 N. 425 E. Ogden, UT 84414 782-6372
Kent + Pam Slater	8070 W. 500 So Ogden UT 84404 731-5855
LYNN MURBROOK	1333 E 2550 N N Ogn 84414 782-5322
Helen McGregor	1299 E. 3090 N- Ogden 84414
Ivan R Barker	177 W. 3325 No. Ogden 84414
Don Sears	P.O Box 1762 Park City UT 84060 645-9826
Nyle Whatcott	965 E. 2750 N. No Ogden.
Lynn Lee & Don	391 E 3550 N No Ogden 84414 782-3811, 399-3552
Ken Jackson	2688 Fillmore Ave Ogden, Utah 84401
Mike Schmidt	345 E 3225 N NORTH OGDEN UT 84414
Michael D. Swenson	363 E. 3325 N. Ogden UT 84414
Scott Russell	2930 N. 1025 E. N. Ogd UT - 84414
Denise W Skeen	3068 NO 1375 E nogden ut 84414
Linda SKeen	3068 No 1375 E No Ogden UT 84414
Craig Barker	245 W. 3375 N. Ogden UT 84414
Don Blair	655 E 3525 N. N. Ogden UT 84414
Karen & Leo Seeber	437 E 3325 N N. Ogden UT 84414
Clark Young	2835 N. 100 E N. Ogden UT 84414
Bob Thompson	279 E Elberta Dr No Ogden
Jan McWhorter	6400 N Highland Dr N. Ogden 840[illegible]
Bonni Bernard	232 E. 3000 N. N. Ogden 782-4495
Becky Hurst	3235 N. Holiday N. Ogden 782-1316
Jim & Mildred Gneil	2725 N. 850 E. No Ogden - 782-9464

NORTH OGDEN CITY

North Hillside Development Study

(7)

City Offices,
North Ogden City, Utah

13 November 1996
(5:00 p.m. to 8:00 p.m.)

Public Workshop Attendance Roster

Name:	Address:
LaDonna Barthlowe	540 E. 2800 N
Edward M. Jager	1363 E 2600 N
Linda Chaffee	422 East 3550 North
Virginia Kendall	509 E. 3050 N.
Jennylin Fullwiley	1449 E 2525 N
J Ann Harris	233 E. 2625 N.
Jon D. Bingham	1337 E. 2925 N.

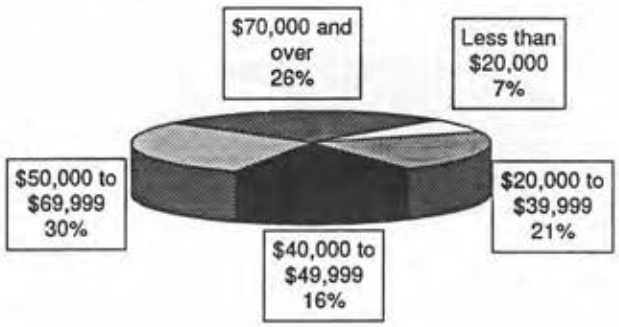
APPENDIX B:

North Ogden Community Survey Results

May 1996

North Ogden Community Survey - about the respondents

D7. Which of the following categories best describes your total family income (from all sources including children) during the last year?

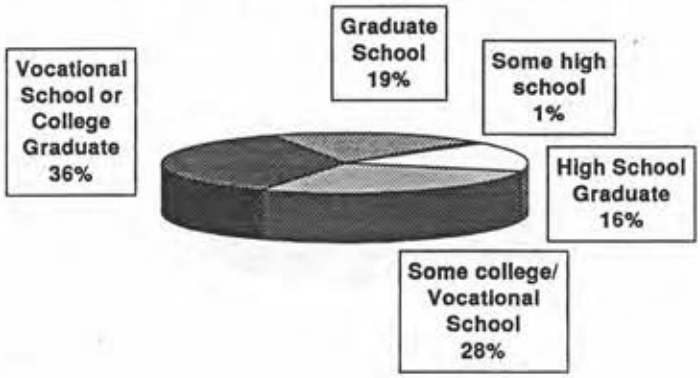


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

QD8. What was the last year of school or grade in school you completed?

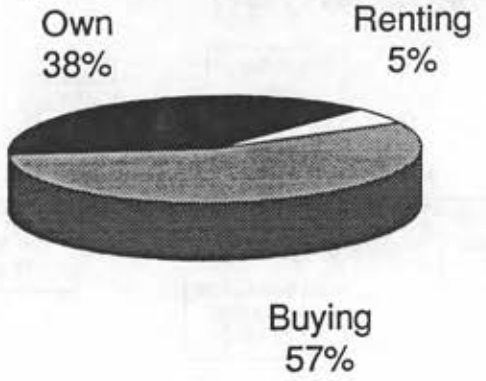


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

D5. Are you renting, buying, or do you own your own home?

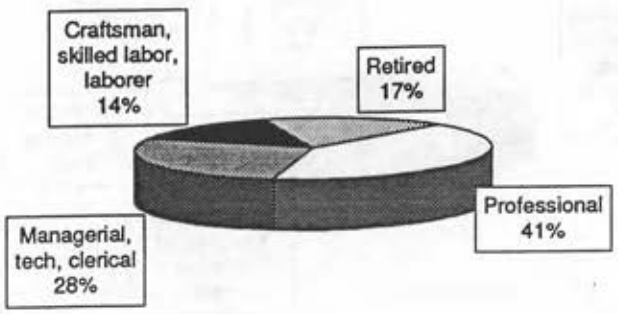


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

D6. What is the occupation of the principal wage earner in your home?

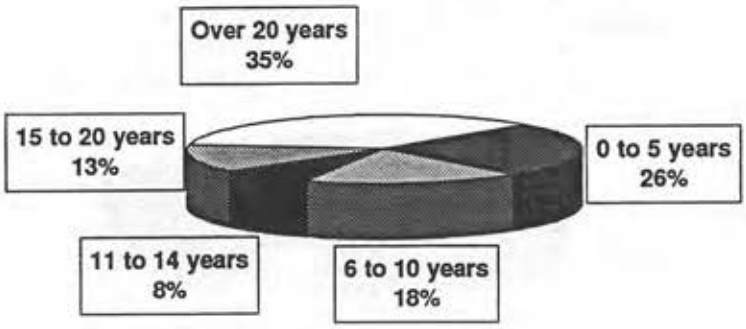


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

QD3. How many years have you lived in North Ogden City?

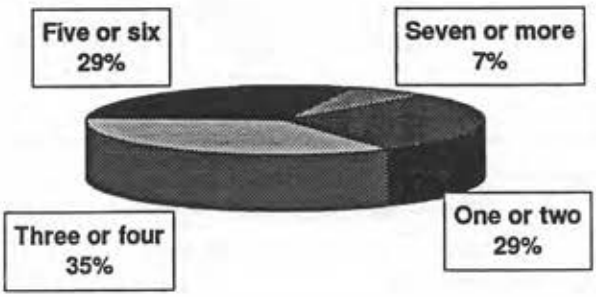


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

D4. How many family members reside in your home?

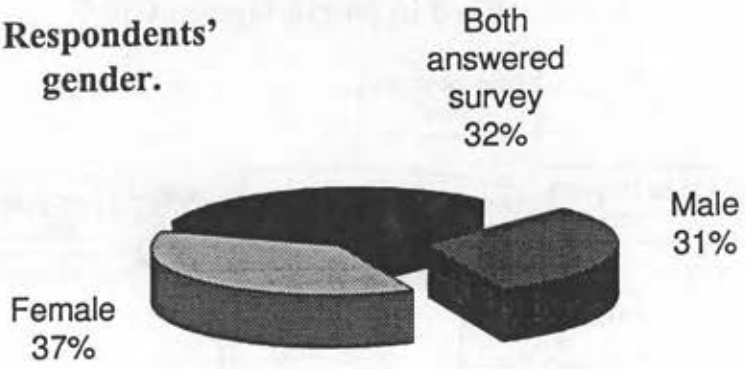


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

D1. Respondents' gender.

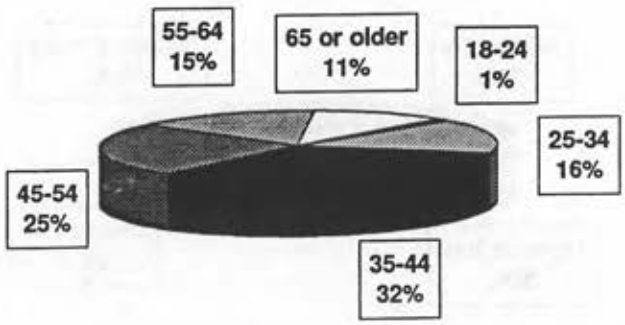


Utah State University Extension

May 1996

North Ogden Community Survey - about the respondents

D2. Which category best represents your age?

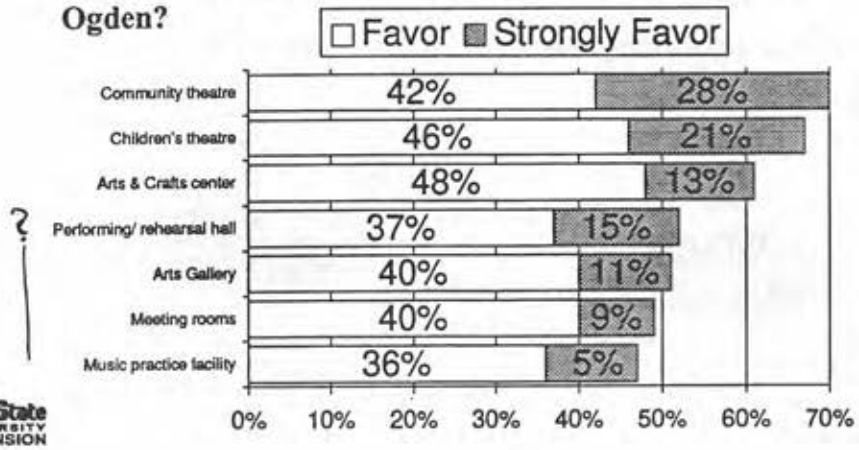


Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C12. On a scale of 1 to 5, do you favor or oppose development or expansion of the following cultural activities in North Ogden?

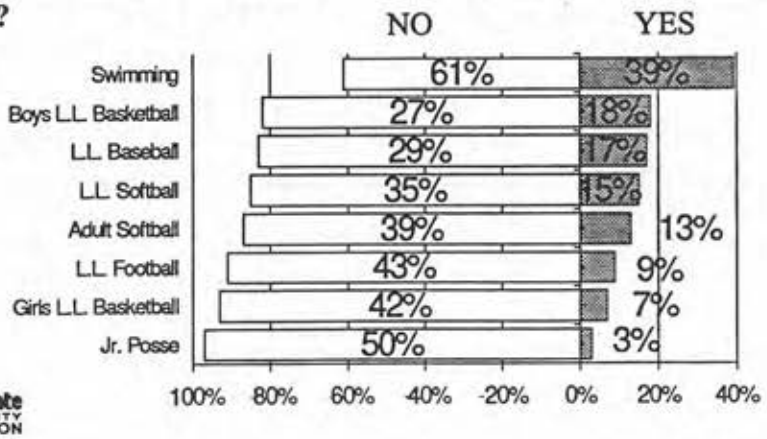


Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C13. Which of the following North Ogden City recreation programs did you or a family member participate in during the last year?



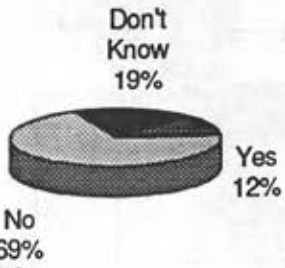
Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C10. If a community center were to be built how should the city pay for it?

Increase property tax



Bonding

Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C11. If a community center were to be built, rank the areas of the city where you would like to see it located?

RANK THESE IN ORDER OF YOUR PREFERENCE WITH 1 BEING FIRST AND 5 BEING LAST.

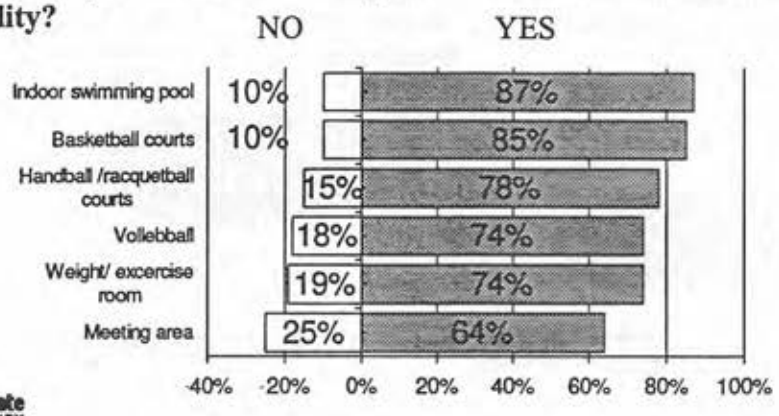
1st City Office and Library Area
2nd North Ogden Park Area
3rd Washington Blvd. Area
4th Jr. High School Area
5th Fruitland Drive Area

Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C9. If North Ogden were to develop an indoor recreation and community center what would you like to see included in this facility?

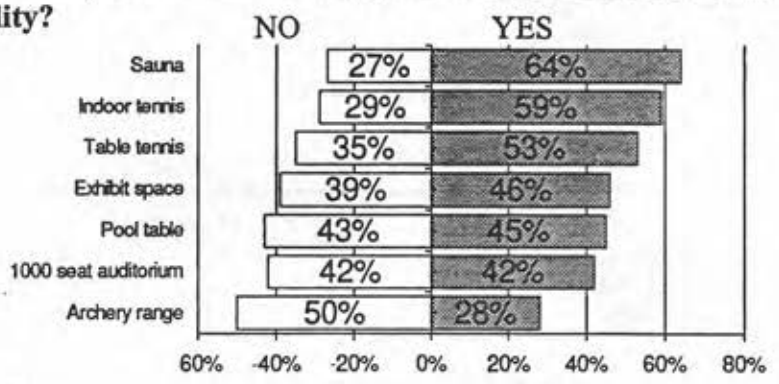


Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C9. If North Ogden were to develop an indoor recreation and community center what would you like to see included in this facility?

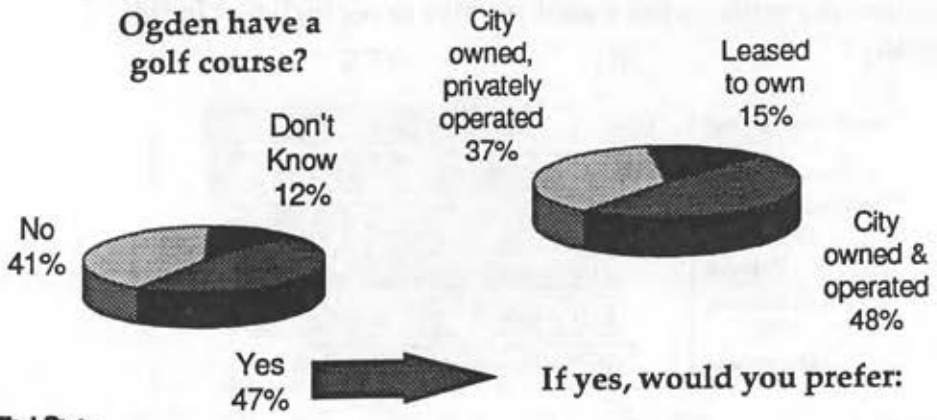


Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C7. Should North Ogden have a golf course?

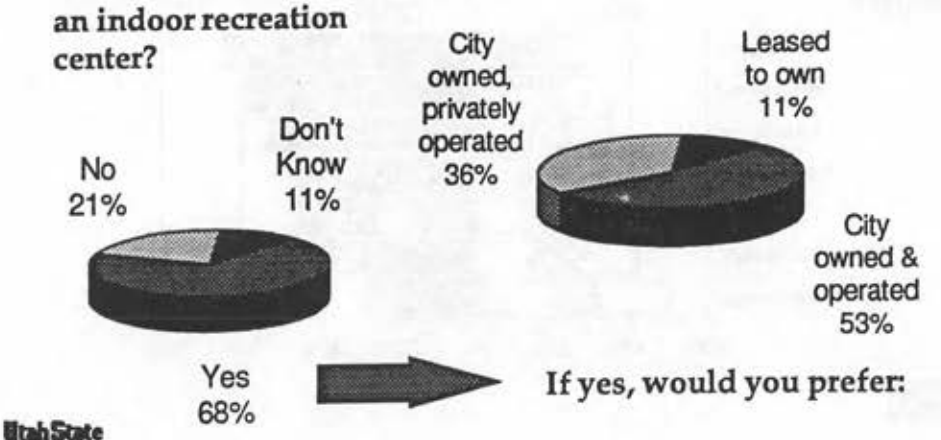


Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

C8. Should North Ogden have an indoor recreation center?



Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

As the city grows there is increased demand for recreational activities. To better plan recreation opportunities we would like to know how you feel about the following items:

C5. North Ogden City does not sponsor soccer but provides facilities. Should soccer facilities be expanded?

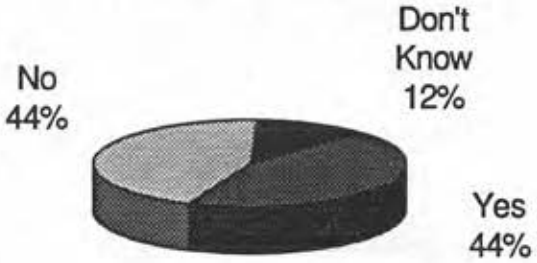
Utah State University Extension

May 1996

North Ogden Community Survey - parks and recreation

As the city grows there is increased demand for recreational activities. To better plan recreation opportunities we would like to know how you feel about the following items:

C6. Would you support a cross country ski course?



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North Ogden Community Survey - parks and recreation

C3. Please rank in order of your preference, the following types of parks you would like to see in North Ogden.

RANK THEM 1 THRU 3 WITH 1 BEING YOUR MOST PREFERRED AND 3 BEING YOUR LEAST PREFERRED TYPE OF PARK.

1st Multi-use neighborhood parks.

2nd Small neighborhood parks.

3rd Large central parks.

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North Ogden Community Survey - parks and recreation

As the city grows there is increased demand for recreational activities. To better plan recreation opportunities we would like to know how you feel about the following items:

C4. Should baseball and softball activities be concentrated in a single large city complex?

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North Ogden Community Survey - parks and recreation

North Ogden City currently has approximately 2 acres of park for each 1000 residents. Parks accommodate most of the recreational activity offered within the city.

C1. How important are parks and open space?

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North Ogden Community Survey - parks and recreation

C2. What do you consider the best amount of park area for every 1000 residents?

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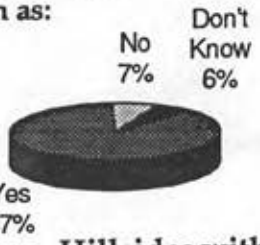
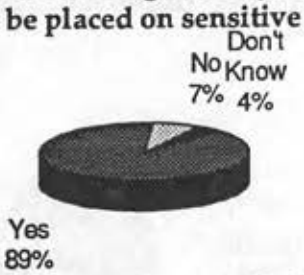
North Ogden Community Survey - residential

B3. Potential for residential growth exits in the north, northeast, eastcentral, and south areas of the city. The north and northeast areas are sensitive due to wildlife and vegetation and potential hazards such as flooding, debris slides, fire, and snow avalanches. The upper areas are also recharge areas for wells in North Ogden City. Should special requirements for development be placed on sensitive lands such as:



Hillsides with greater than 20% slopes.



Avalanche, debris slide, and drainage areas.

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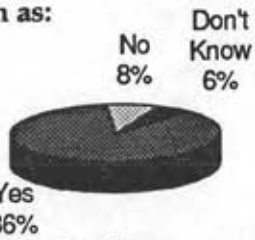
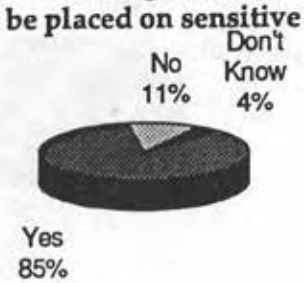
North Ogden Community Survey - residential

B3. Potential for residential growth exits in the north, northeast, eastcentral, and south areas of the city. The north and northeast areas are sensitive due to wildlife and vegetation and potential hazards such as flooding, debris slides, fire, and snow avalanches. The upper areas are also recharge areas for wells in North Ogden City. Should special requirements for development be placed on sensitive lands such as:



Recharge areas for wells in North Ogden City.



Wildlife habitat areas.

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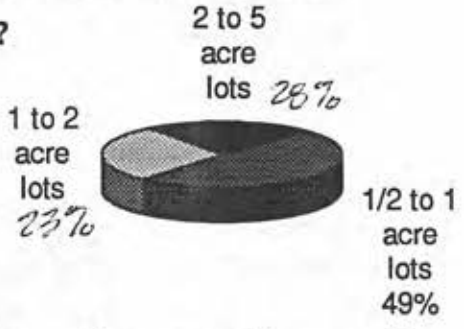
North Ogden Community Survey - residential

B2. Should any of the following be used to maintain existing open space in North Ogden's north hillside area:

Require lots 1/2 acre or more?

If yes, would you prefer:



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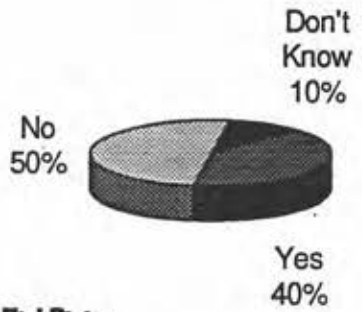
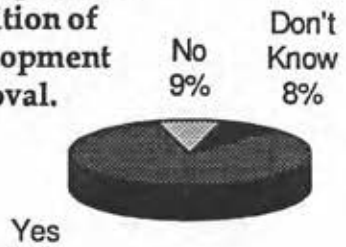
North Ogden Community Survey - residential

B2. Should any of the following be used to maintain existing open space in North Ogden's north hillside area:

Encourage Cluster Housing.



Require developers to contribute open space as a condition of development approval.



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North Ogden Community Survey - future development

A7. Some of the larger parcels of land in the Redevelopment Area are zoned CP-2 (planned commercial) which permits the establishment of complexes of retail stores (like Smith's complex).

Do you support using this zoning concept in other commercial areas of the city?

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North Ogden Community Survey - residential

B1. Experience has shown that fees and taxes generated from residential expansion seldom covers the costs of increased residential services. The following methods of financing have been used to cover current or projected residential growth.

PLEASE RANK THESE IN ORDER OF YOUR PREFERENCE WITH 1 BEING FIRST AND 4 BEING LAST.

1st Increase Business Fee (license)

2nd Increase property tax base through commercial growth

3rd Increase sales tax base through retail growth

4th Increase residential property taxes

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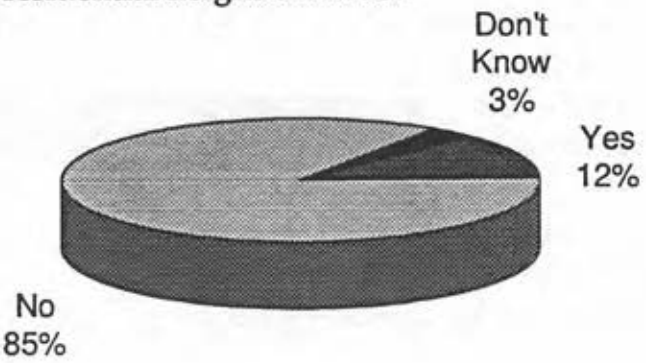
North Ogden Community Survey - future development

A5. Should North Ogden allow convenience stores in residential neighborhoods?



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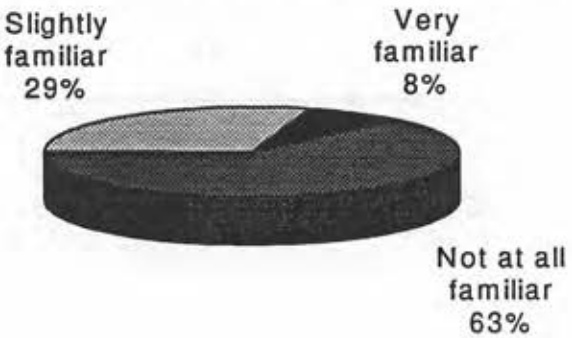
North Ogden Community Survey - future development

A6. Portions of the commercial zone are under an RDA (Redevelopment Agency) designation. How familiar are you with RDA?



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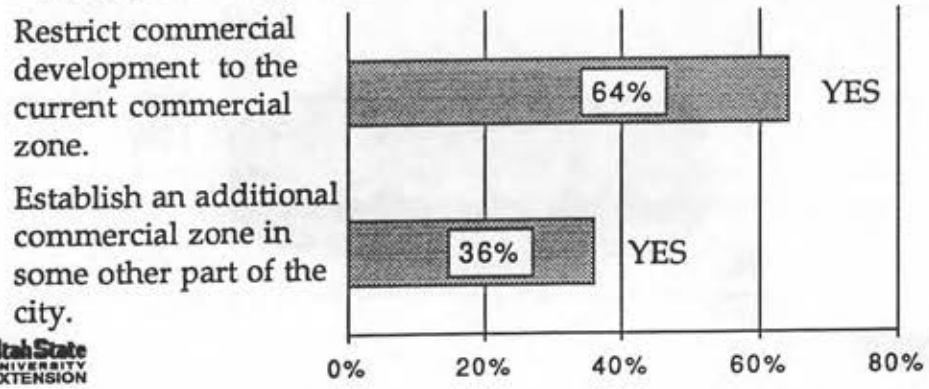
North Ogden Community Survey - future development

A3. The commercial zone in North Ogden is located on or near 400 East (Washington Blvd.) and south of 2650 North. Should North Ogden:



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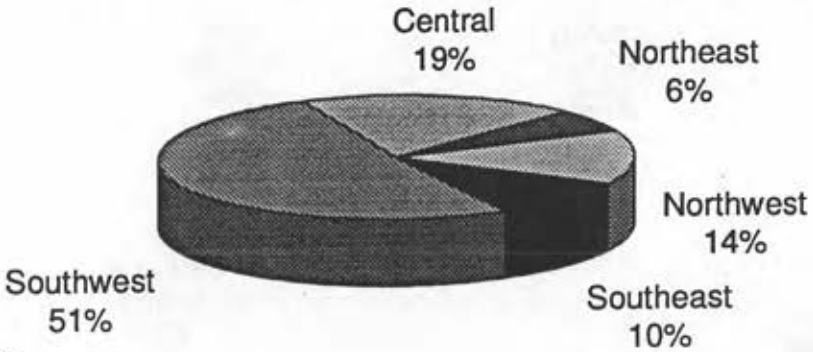
North Ogden Community Survey - future development

A4. If an additional commercial zone were to be established, what part of the city would be your preferred location?



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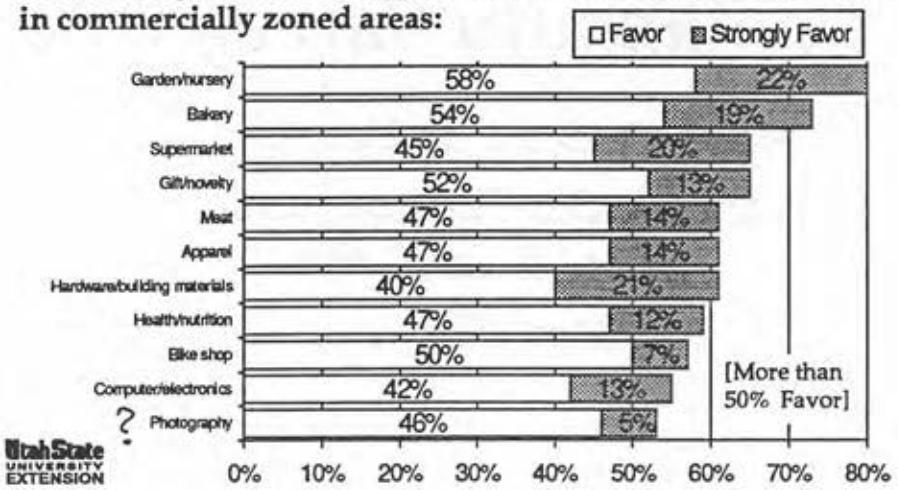
North Ogden Community Survey - future development

A2. Would you favor or oppose the following type of businesses in commercially zoned areas:



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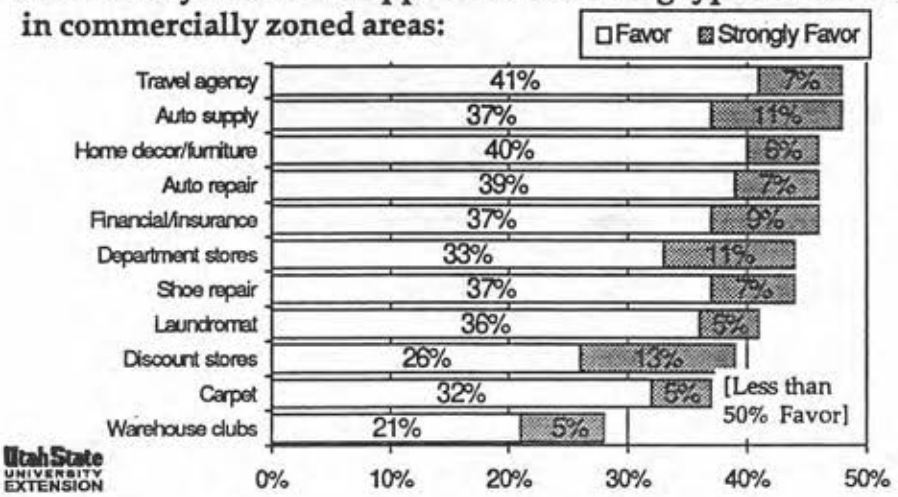
North Ogden Community Survey - future development

A2. Would you favor or oppose the following type of businesses in commercially zoned areas:



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North Ogden Community Survey

North Ogden City Council

North Ogden Planning and Zoning Commission

May 1996

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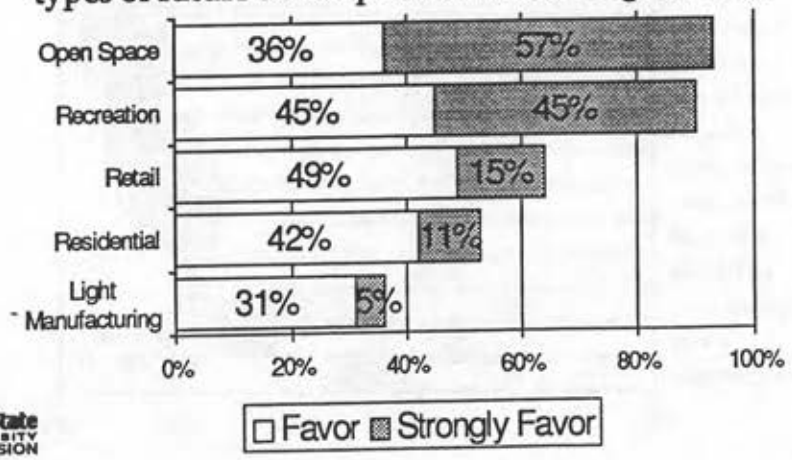
May 1996

North Ogden Community Survey - future development

A1. In general, how do you feel about the following types of future development in North Ogden City?



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APPENDIX C:

North Hillside Development Study Mapping

MAPPING SOURCES

Base Map

Jones and Associates. 1996. Zoning Map for North Ogden City. Electronic File in AutoCAD Format.

U.S. Geological Survey. 1992. 1:24,000 Scale Map of the North Ogden, Utah Quadrangle.

Faults Inventory Map and Faults Constraints Map

Arnow, Ted. 1971. Geologic Framework. Environmental Geology of the Wasatch Front, 1971. Utah Geological Association Publication 1-B.

Nelson, A.R. and Personius, S.F. 1991. Surficial Geologic Map of the Weber Segment, Wasatch Fault Zone, Weber and Davis Counties, Utah. U. S. Geological Survey Miscellaneous Investigations Series, Map I-2199. Scale 1:50,000.

Personius, S. F. 1991. Paleosiesmic Analyses of the Wasatch Fault Zone at the Brigham City Trench Site, Brigham City, Utah and Pole Patch Trench Site, Pleasant View, in Paleosiesmology of Utah, Volume 2. Utah Geological and Mineral Survey, Utah Department of Natural Resources. UGMS Special Studies 76.

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

Utah Geologic Survey. 1996. Selected Critical Facilities and Geologic Hazards, Weber County, Utah, Map. Scale: 1:100,000. Utah Division of Natural Resources, Salt Lake City, Utah.

Fire Inventory Map and Fire Constraints Map

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

Wadleigh, Linda. 1996. U.S. Forest Service, Ogden Ranger District. Personal Communications with Christy Calvin, BIO/WEST, Inc. Logan, Utah.

Geology Inventory Map and Debris Flow Constraints Map

Arnow, Ted. 1971. Geologic Framework. Environmental Geology of the Wasatch Front, 1971. Utah Geological Association Publication 1-B.

Nelson, A.R. and Personius, S. F. 1991. Surficial Geologic Map of the Weber Segment, Wasatch Fault Zone, Weber and Davis Counties, Utah. U.S. Geological Survey Miscellaneous Investigations Series, Map I-2199. Scale 1:50,000.

Pashley, E.F. Jr. and Wiggins, R.A. 1971. Landslides of the Northern Wasatch Front. Environmental Geology of the Wasatch Front, 1971. Utah Geological Association Publication 1-K.

Personius, S.F. 1991. Paleosiesmic Analyses of the Wasatch Fault Zone at the Brigham City Trench Site, Brigham City, Utah and Pole Patch Trench Site, Pleasant View, in Paleosiesmology of Utah, Volume 2. Utah Geological and Mineral Survey, Utah Department of Natural Resources. UGMS Special Studies 76.

Geomorphology Inventory Map and Landslide and Avalanche Constraints Map

Perla, R. I. 1971. Snow Avalanches of the Wasatch Front. Environmental Geology of the Wasatch Front, 1971. Utah Geological Association Publication 1-O.

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

Hydrology Inventory Map and Hydrology Constraints Map

Federal Emergency Management Agency. 1983. Flood Insurance Rage Map. City of North Ogden, Utah; Weber County. Panel 1 of 2. Community-Panel Number 490214-0001-B. January 1983.

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

U.S. Geological Survey. 1992. 1:24,000 Scale Map of the North Ogden, Utah Quadrangle.

Recharge Inventory Map and Recharge Constraints Map

U.S. Geological Survey. 1994. Hydrology of Recharge Areas and Water Quality of the Principal Aquifers Along the Wasatch Front and Adjacent Areas, Utah. Water-Resources Investigations Report 93-4221. Salt Lake City, Utah.

Slope Inventory Map and Slope Constraints Map

Jones and Associates. 1987. North Hillside Development Study. Slope Analysis Map. North Ogden City, Utah.

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

U.S. Geological Survey. 1992. 1:24,000 Scale Map of the North Ogden, Utah Quadrangle.

Soils Inventory Map and Soils Constraints Map

U.S. Soil Conservation Service. 1968. Soil Survey: Davis-Wever Area, Utah. United States Department of Agriculture, Soil Conservation Service. In Cooperation with Utah Agricultural Experiment Station. U.S. Government Printing Office. Washington, D.C. July 1968.

Utilities and Parks Inventory Map

Jones and Associates. 1987. North Hillside Development Study. Culinary Water, Secondary Water, Sanitary Sewer, and Utilities Maps. North Ogden City, Utah.

Vegetation and Wildlife Inventory Map and Vegetation and Wildlife Constraints Map

Reynolds, Rory. 1996. Utah Division of Wildlife Resources. Personal Communications with Becky Yeager, BIO/WEST, Inc. Logan, Utah.

Ridd, Merrill K., and Bruce N. Kaliser. 1978. Natural Constraints to Urban Development in the North Ogden Area, Utah. Center for Remote Sensing and Cartography, Department of Geography, University of Utah. Salt Lake City, Utah. May 1978.

U.S. Geological Survey. 1992. 1:24,000 Scale Map of the North Ogden, Utah Quadrangle.

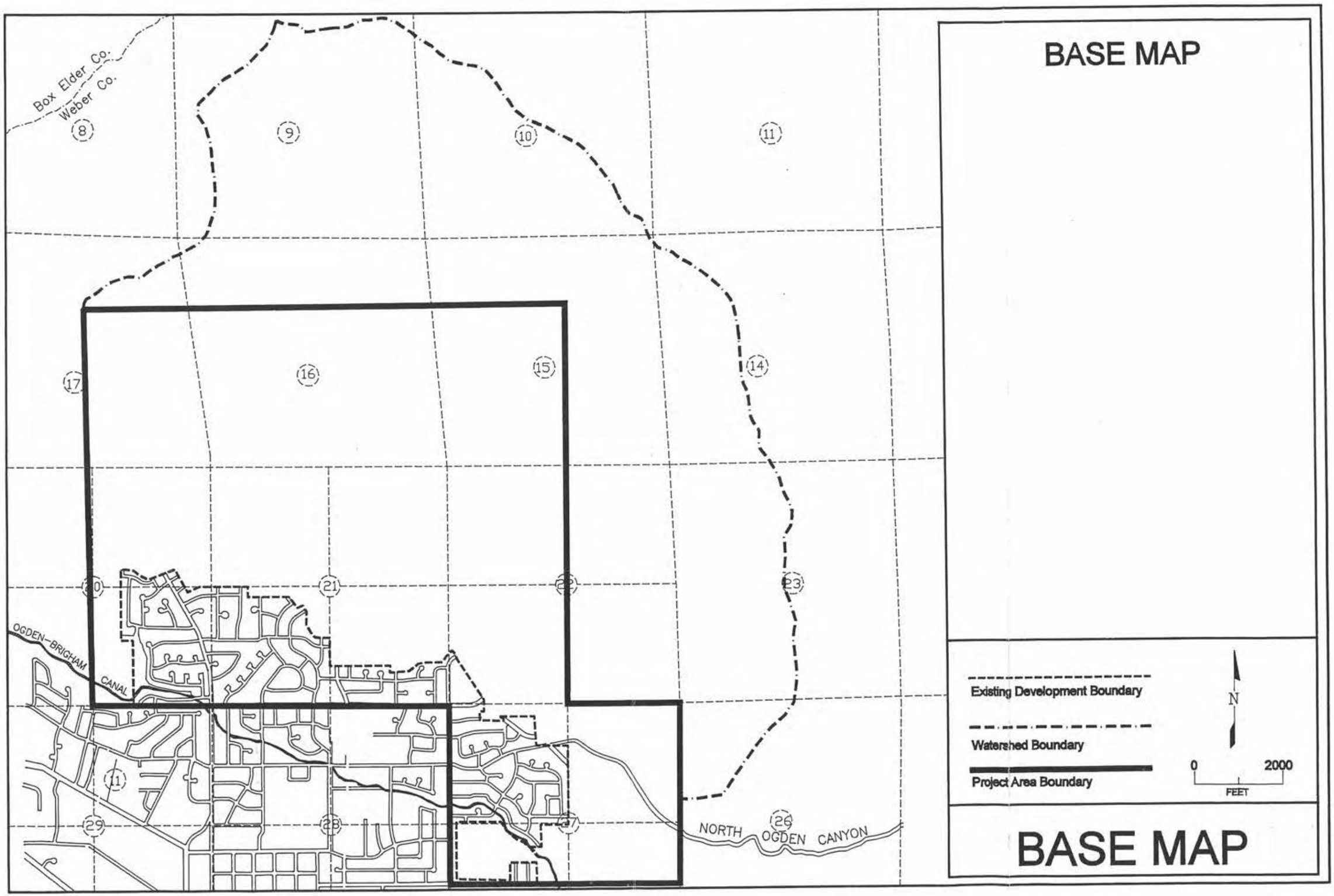

Figure C-1. Base Map

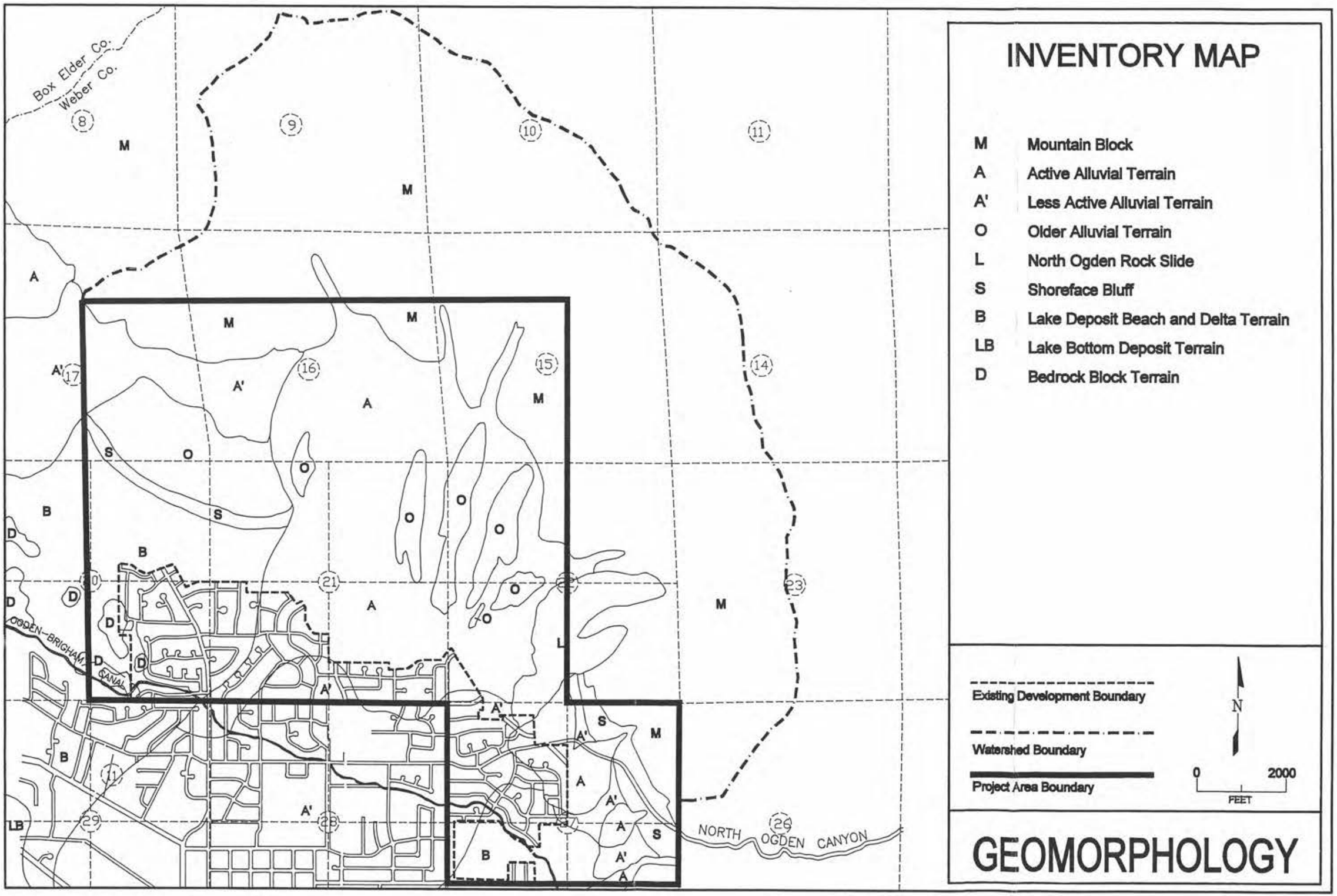

Figure C-2. Geomorphology Inventory Map

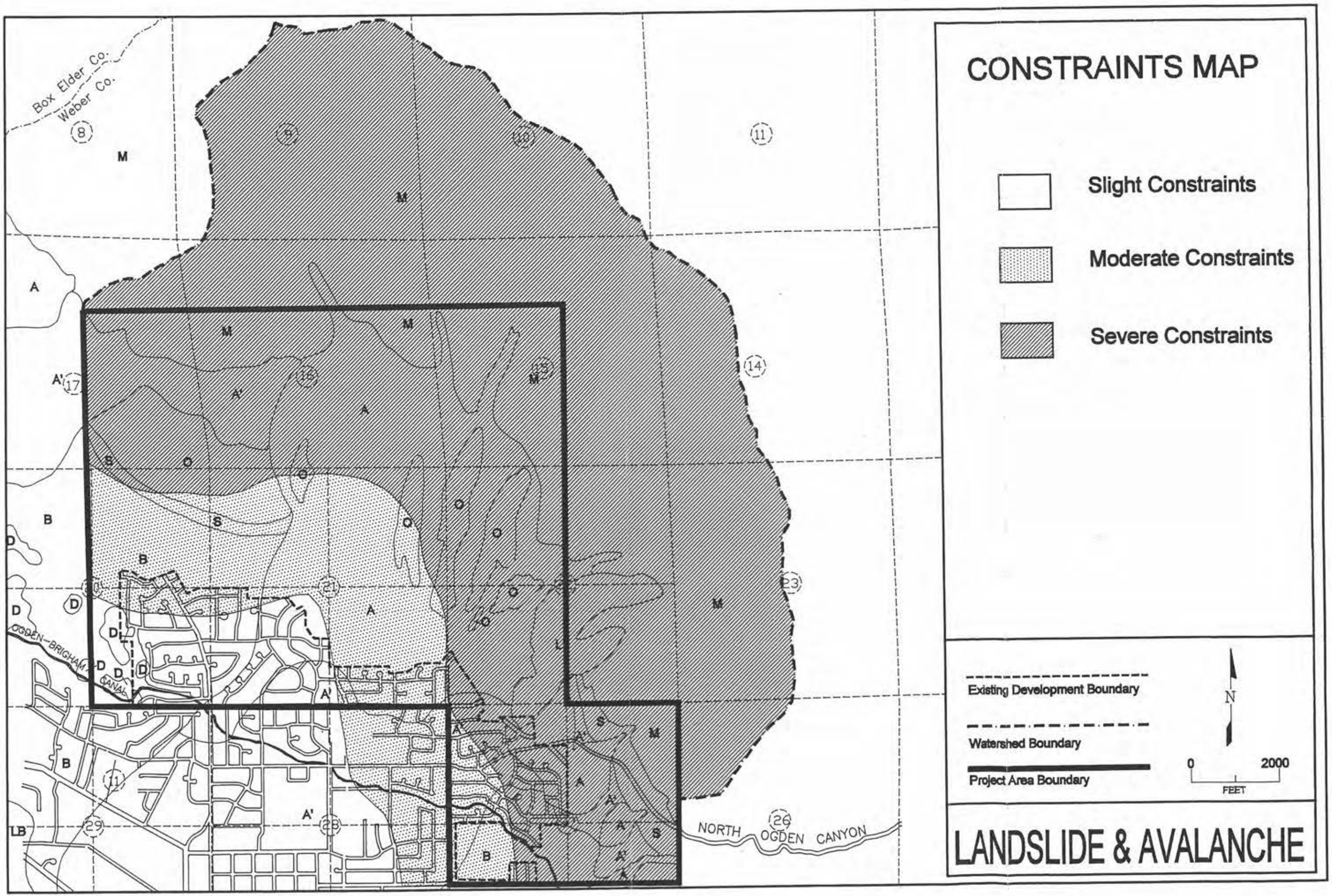

Figure C-3. Landslide and Avalanche Constraints Map

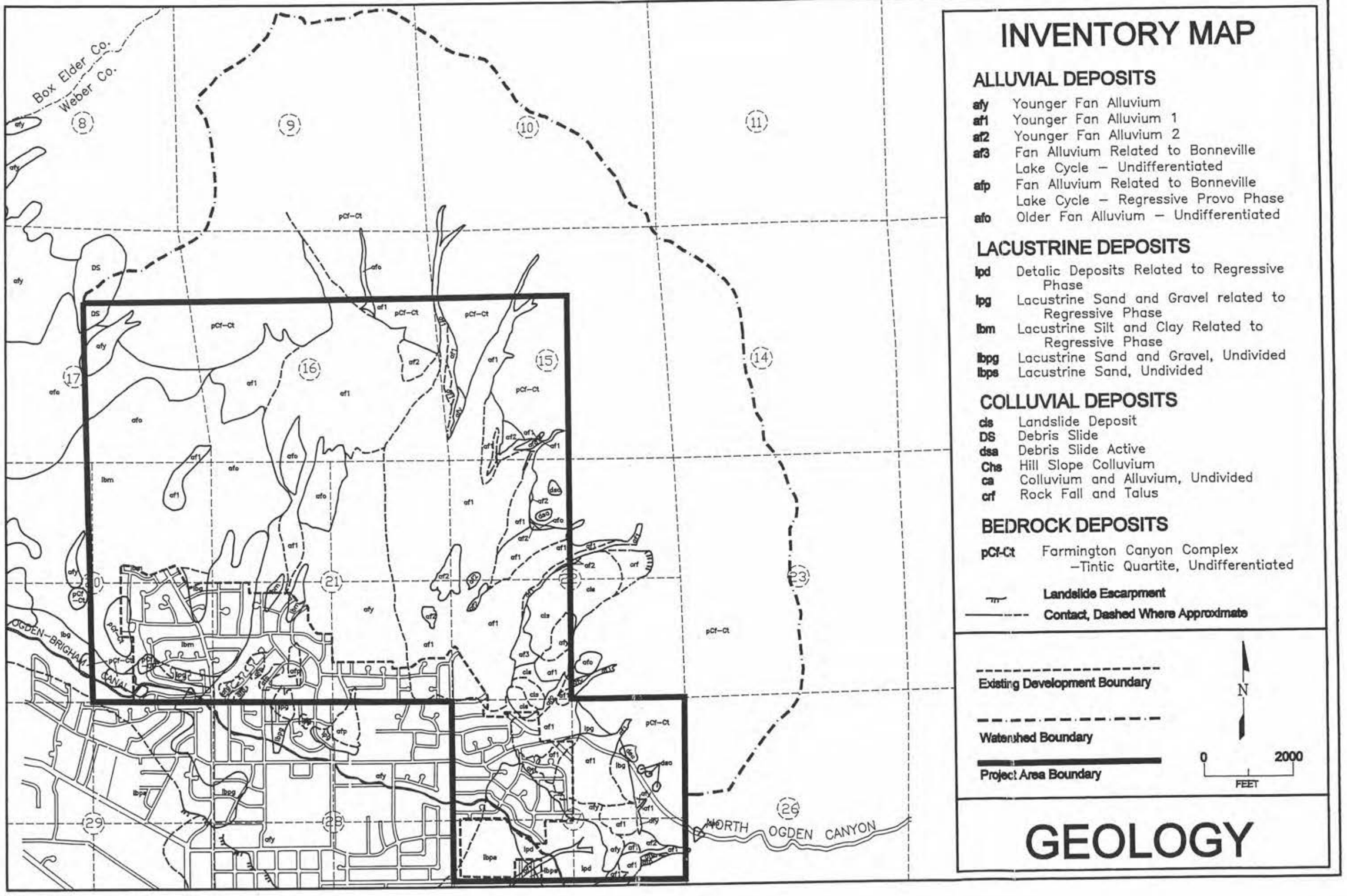

Figure C-4. Geology Inventory Map

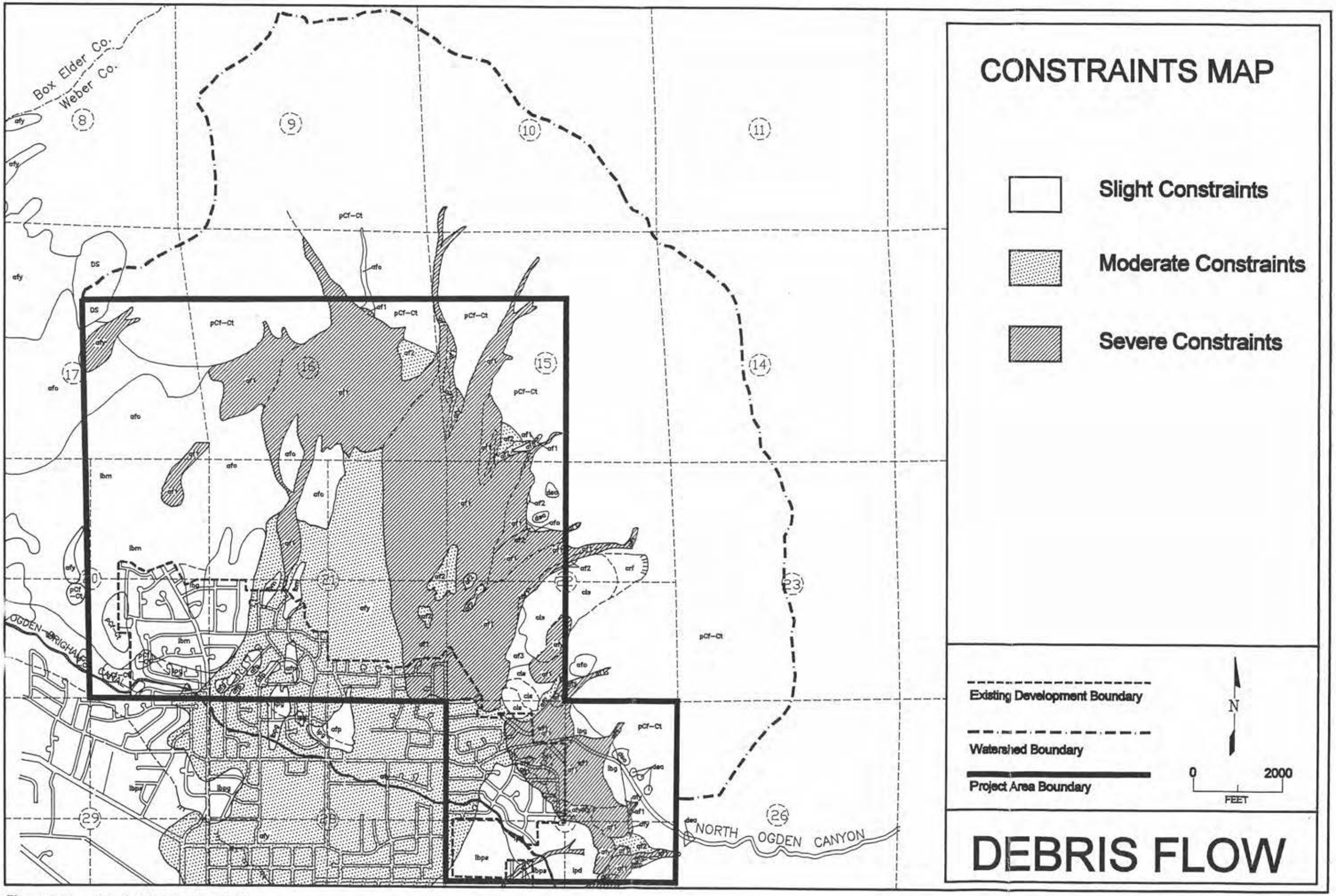

Figure C-5. **Debris Flow Constraints Map**

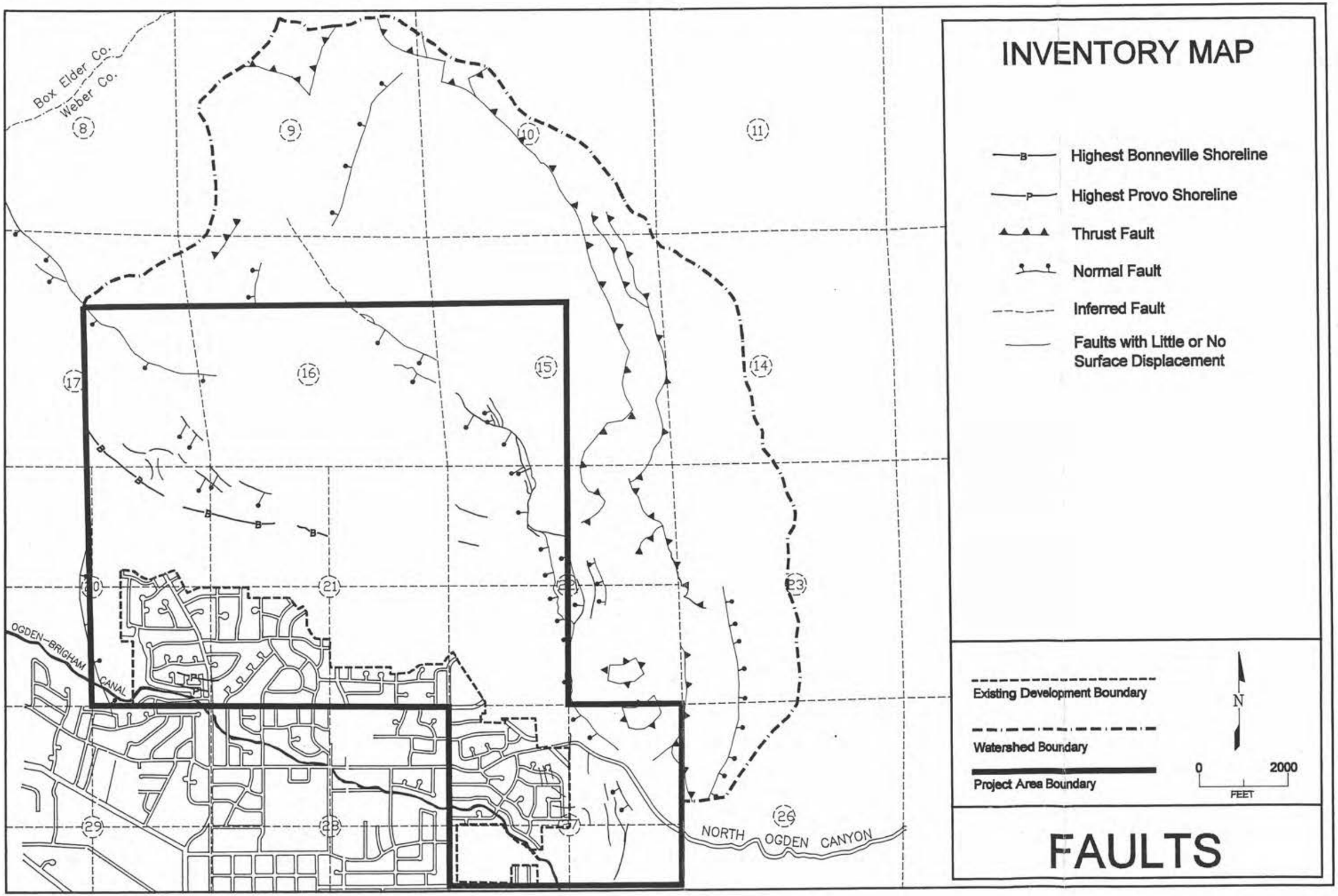

Figure C-6. Faults Inventory Map

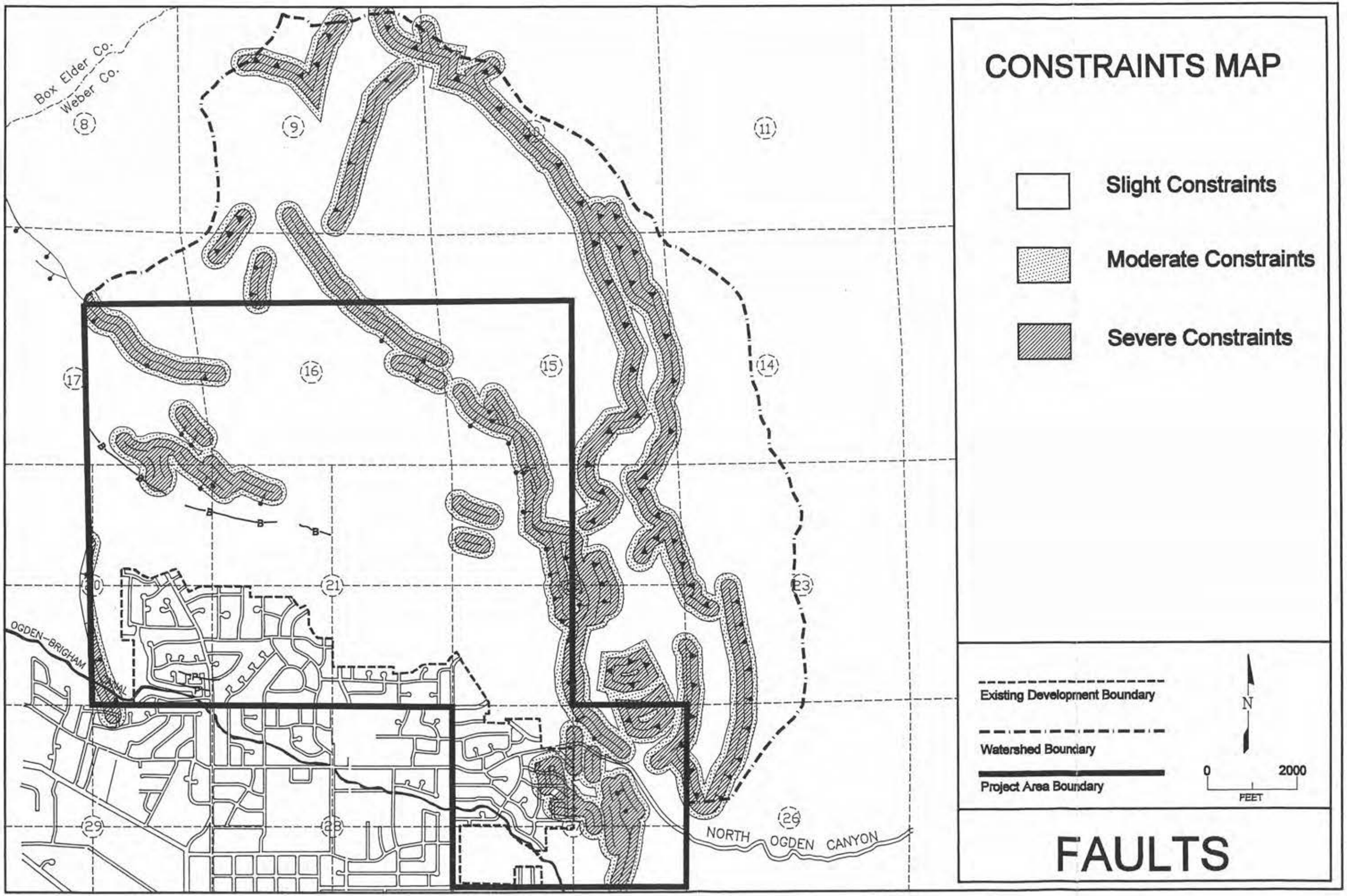

Figure C-7. Faults Constraints Map

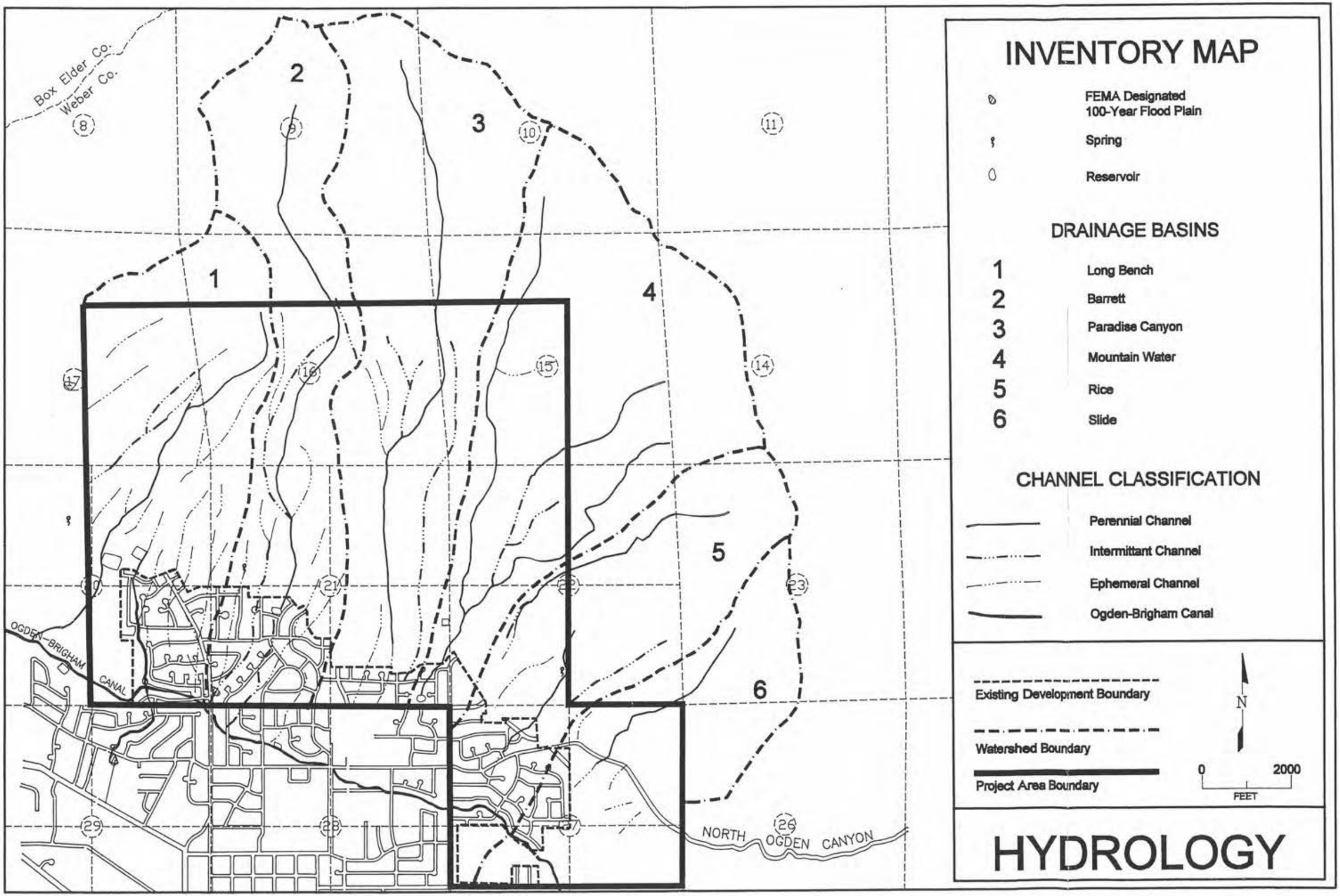

Figure C-8. Hydrology Inventory Map

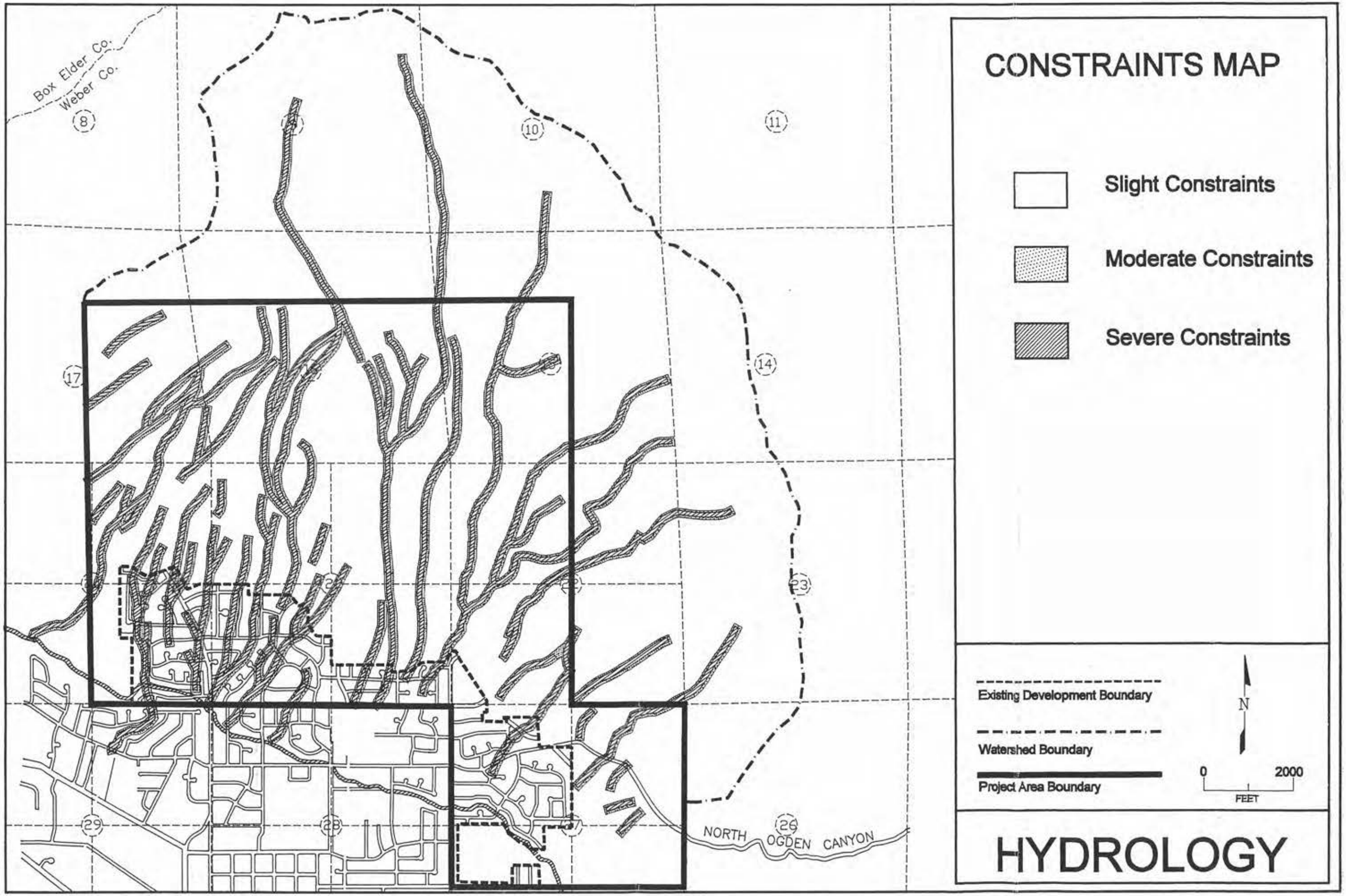

Figure C-9. Hydrology Constraints Map

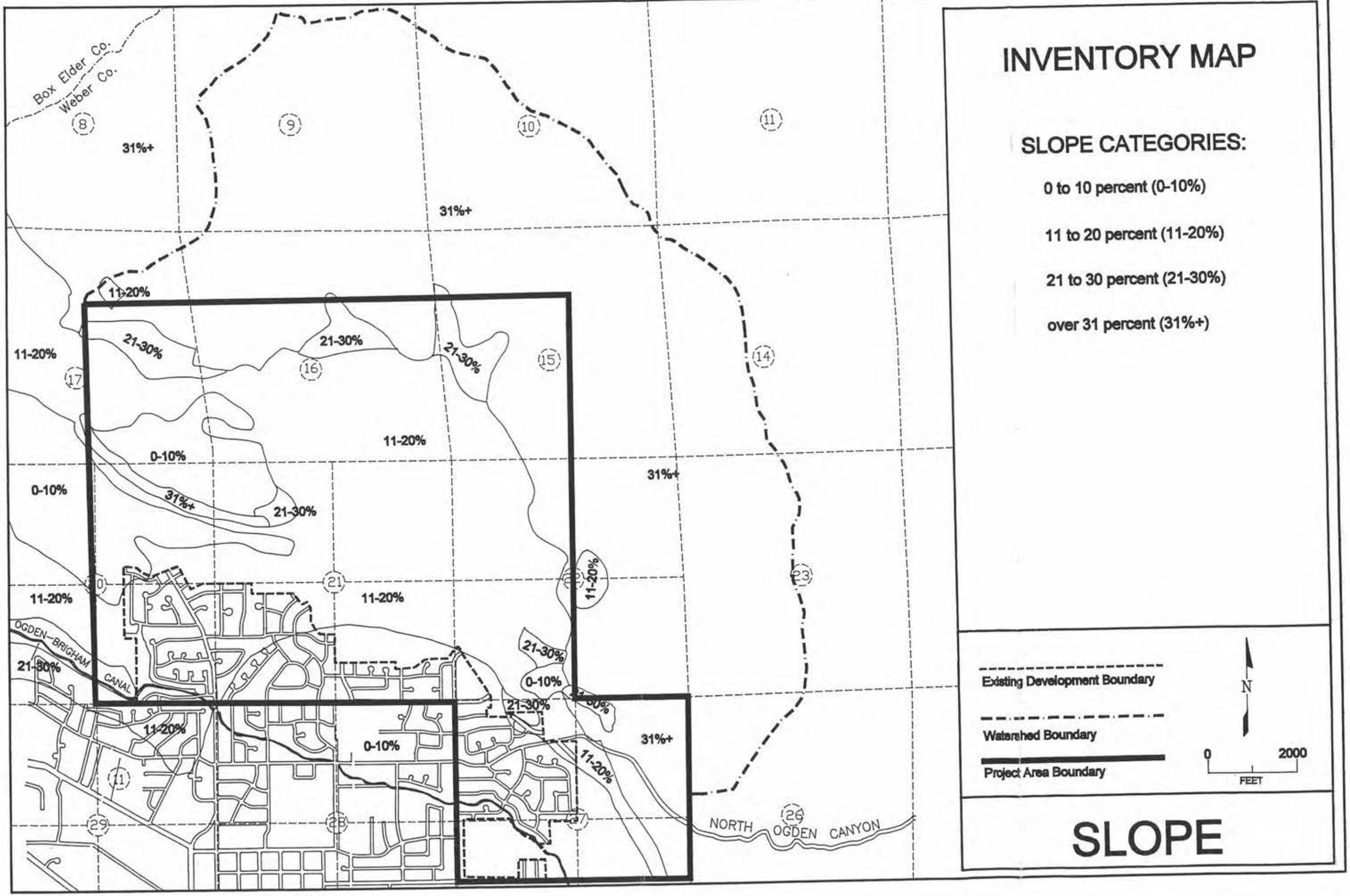

Figure C-10. Slope Inventory map

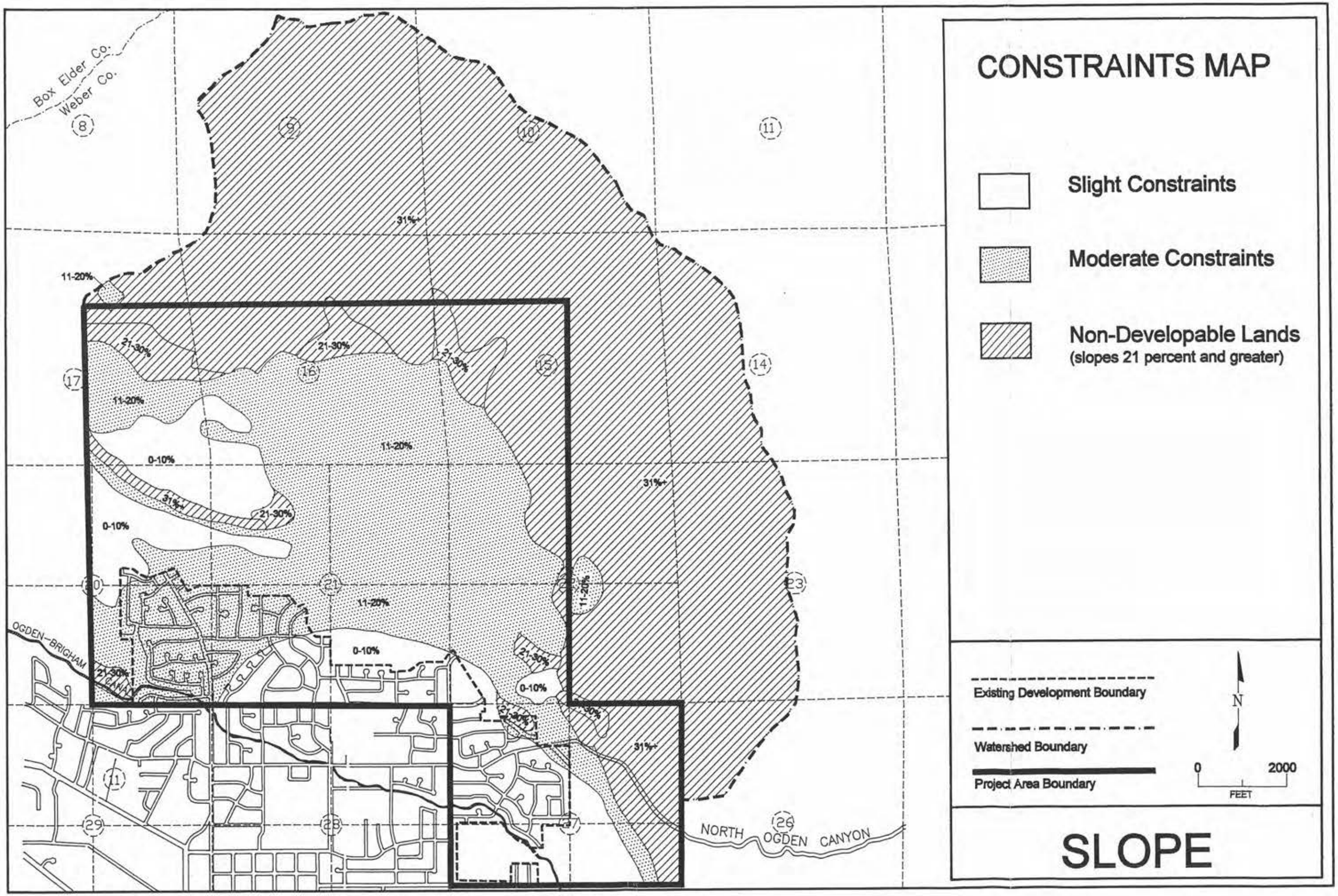

Figure C-11. Slope Constraints Map

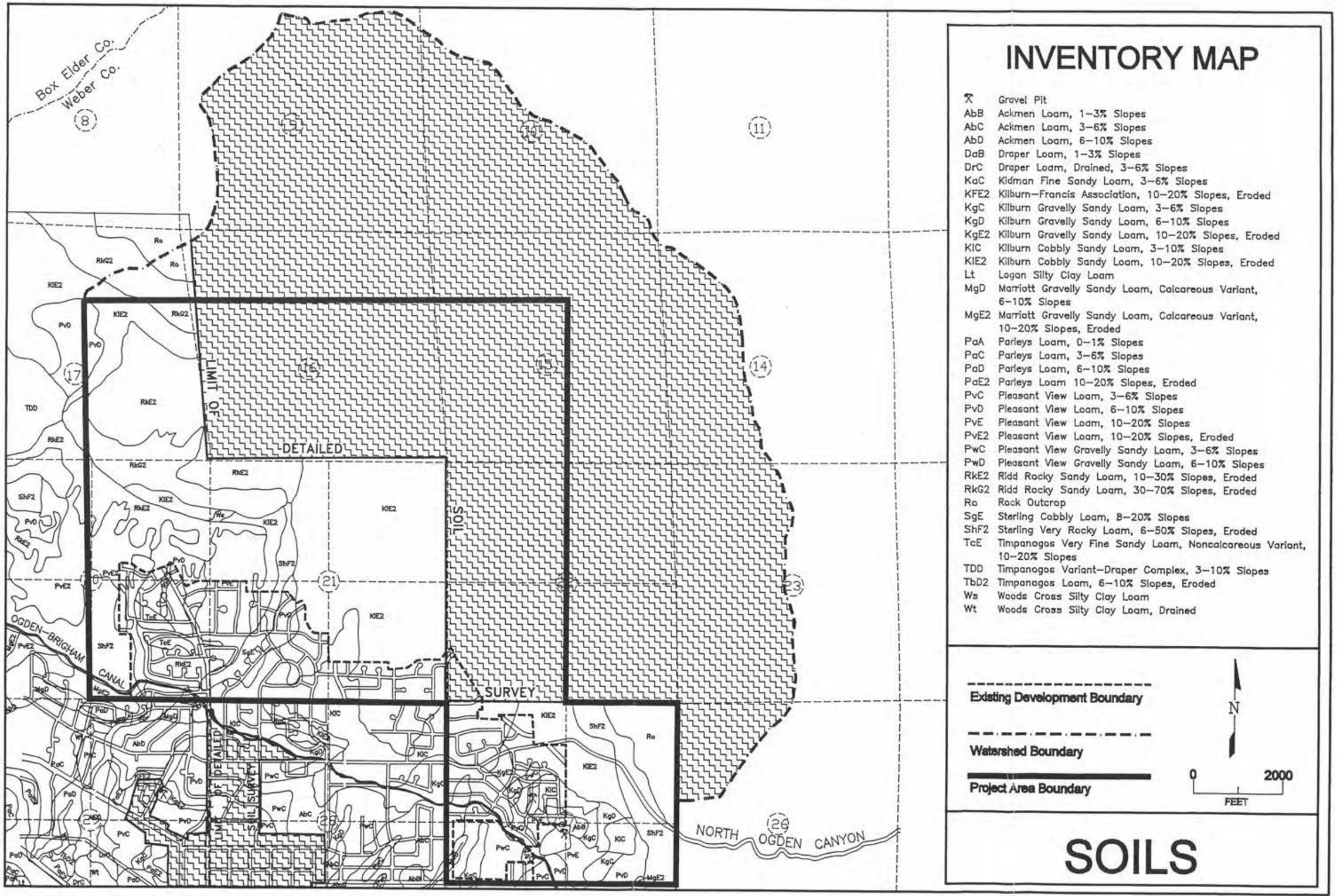

Figure C-12. Soils Inventory Map

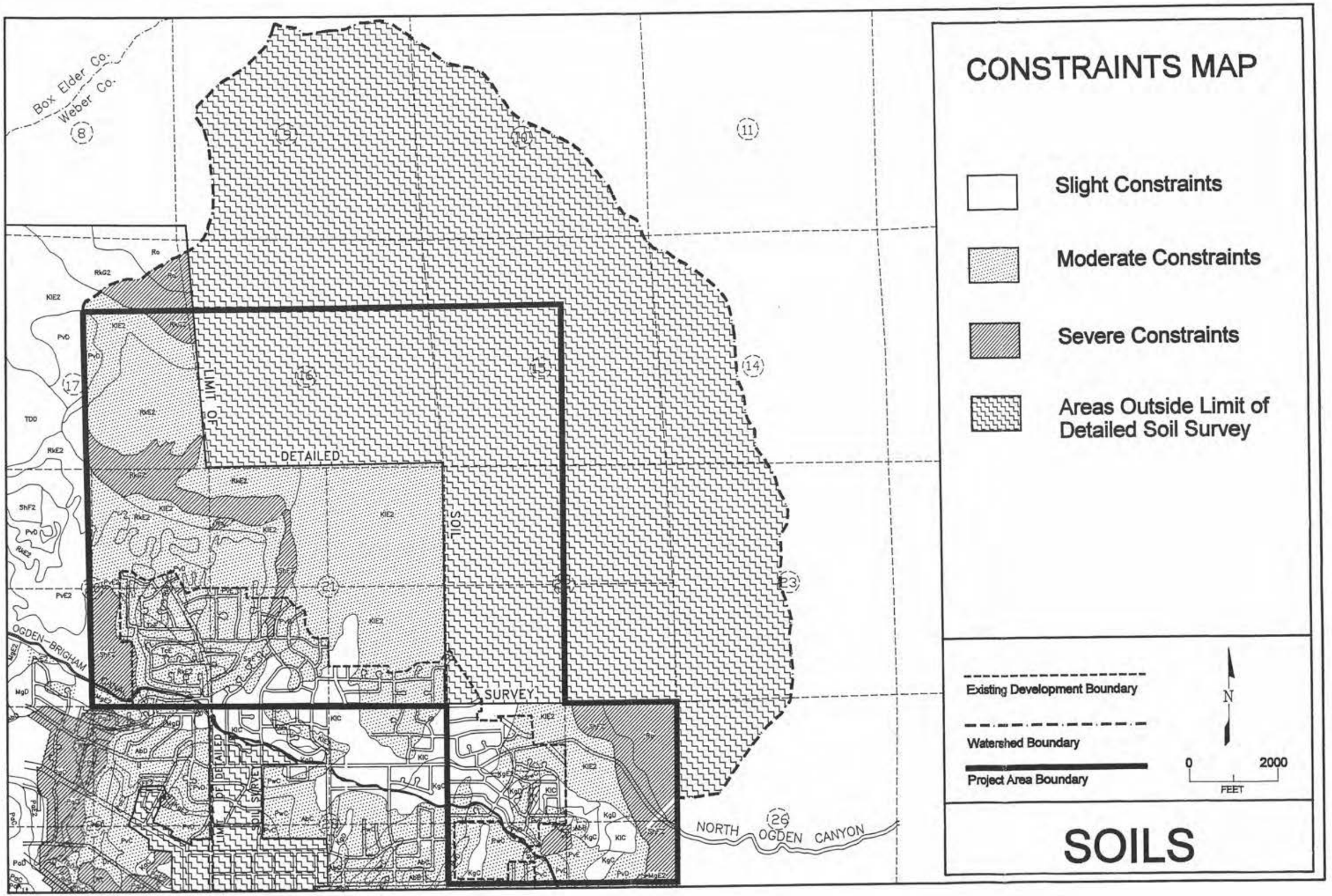

Figure C-13. Soils Constraints Map

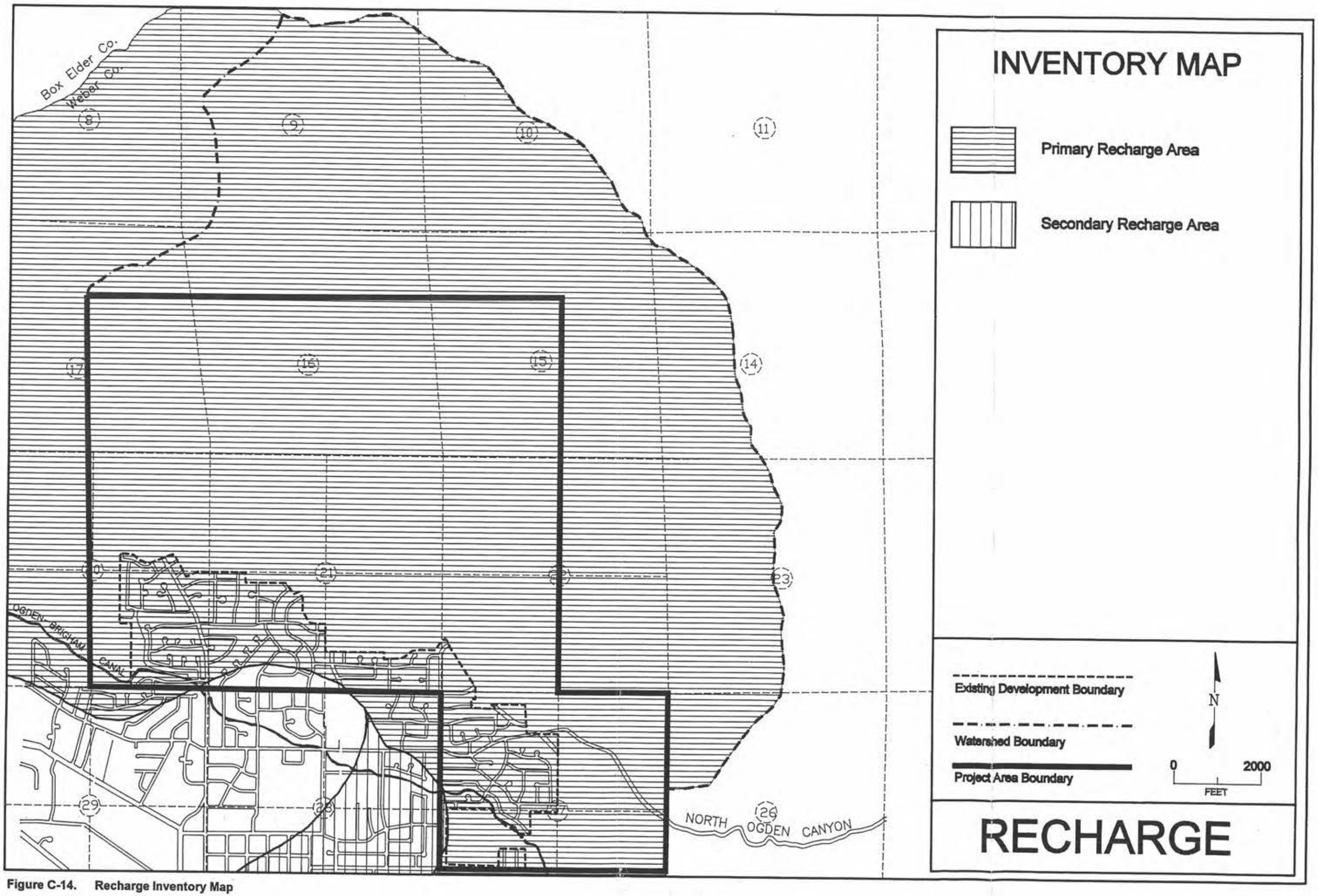

Figure C-14. Recharge Inventory Map

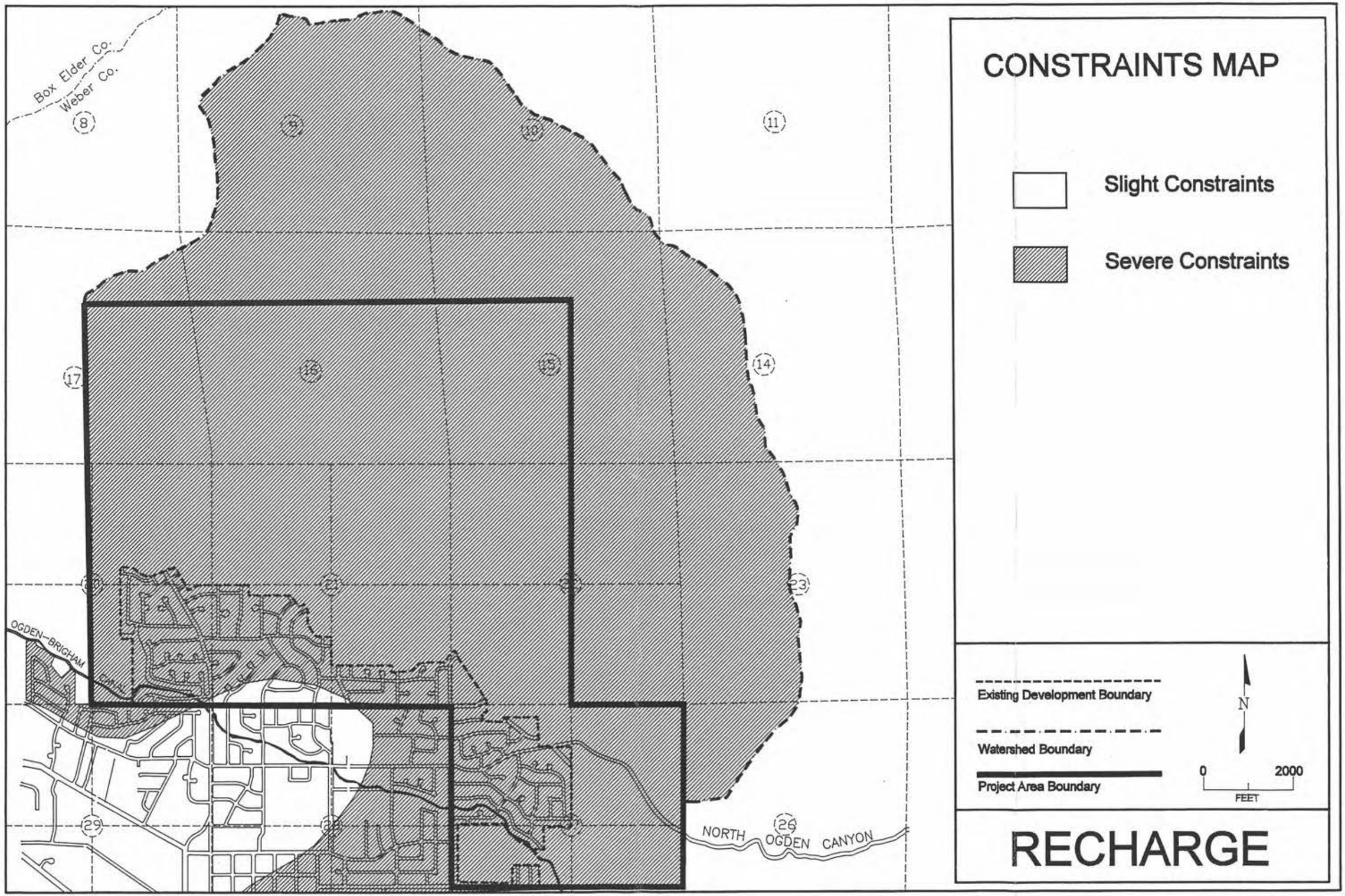

Figure C-15. Recharge Constraints Map

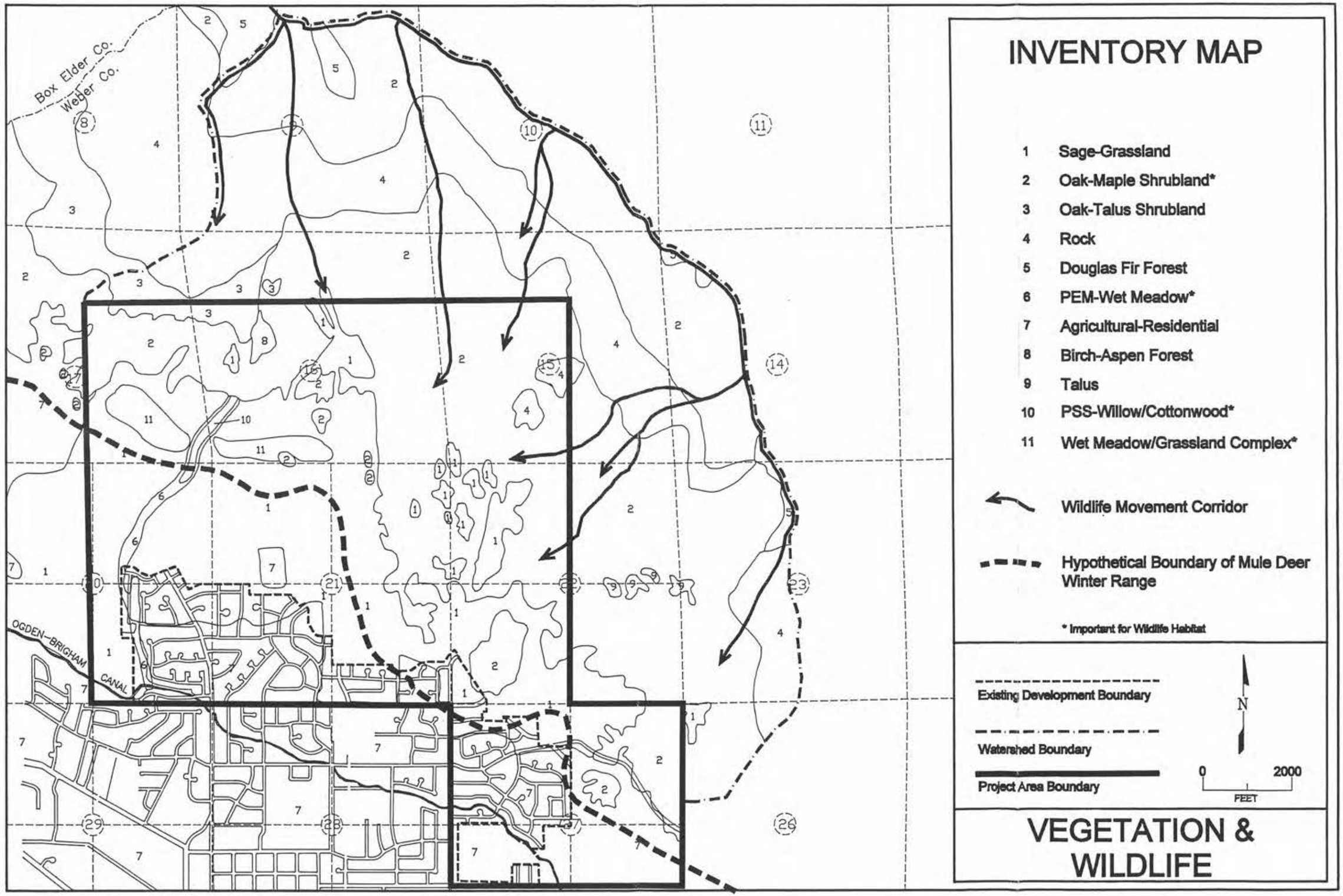

Figure C-16. Vegetation and Wildlife Inventory Map

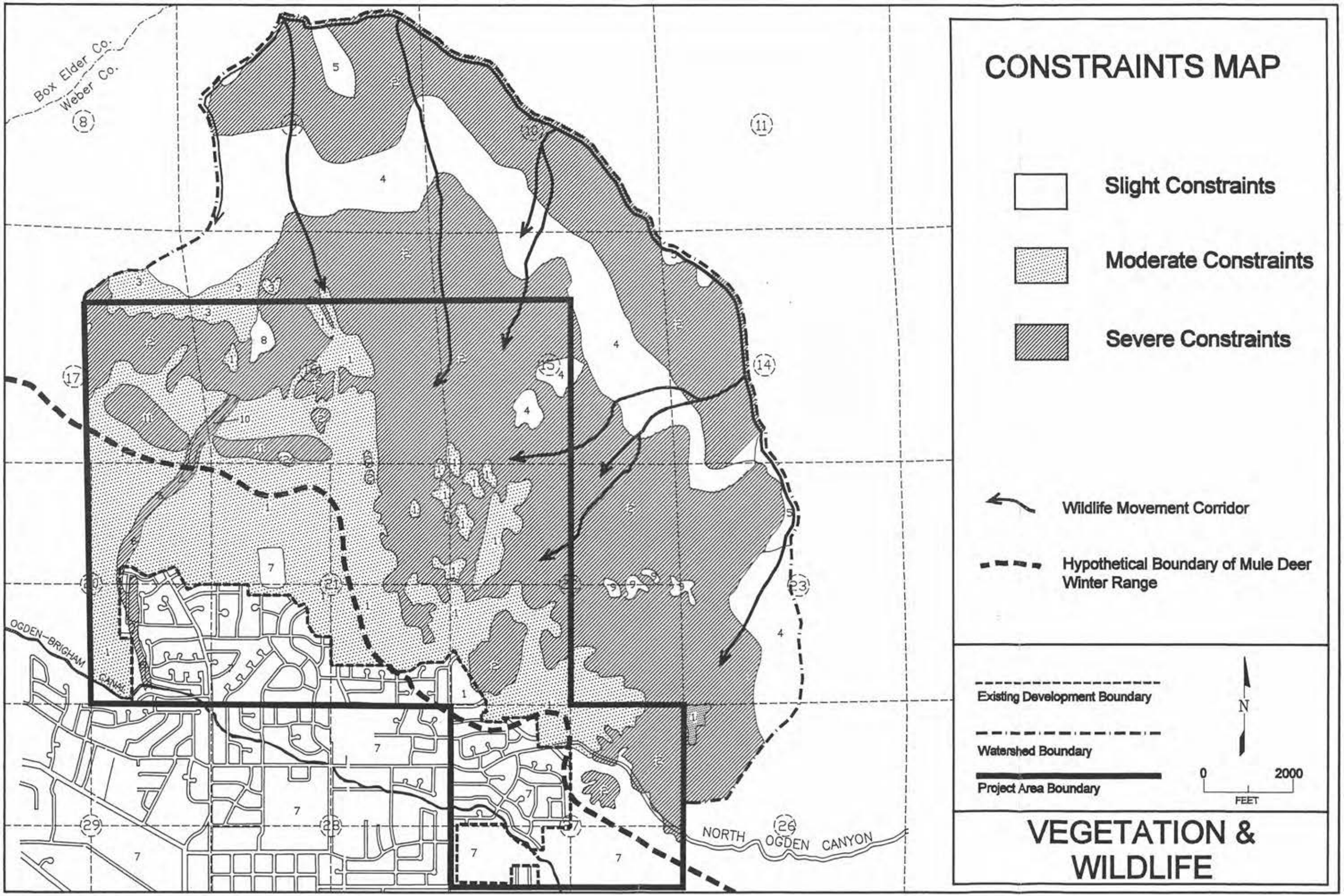

Figure C-17. Vegetation and Wildlife Constraints Map

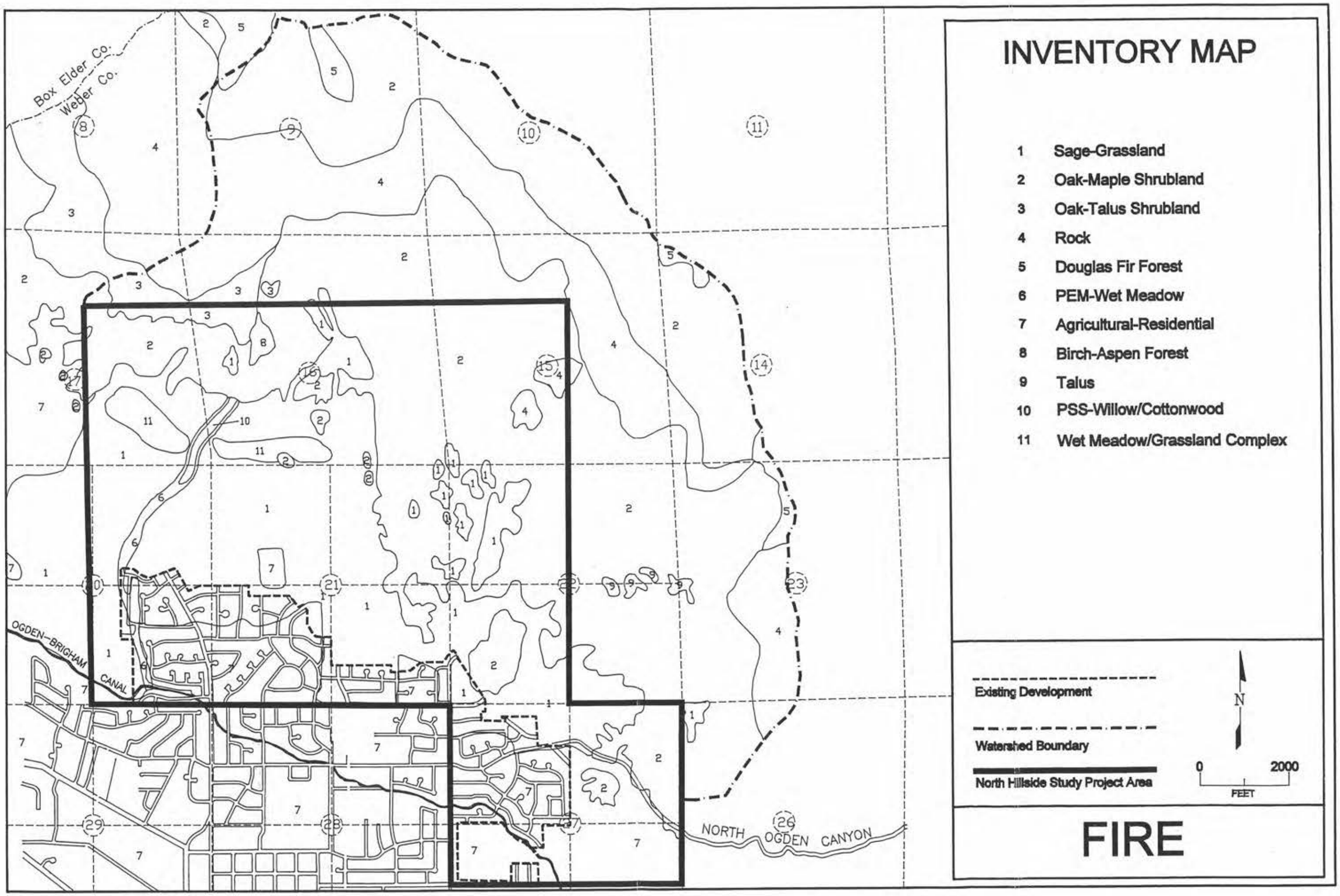

Figure C-18. Fire Inventory Map

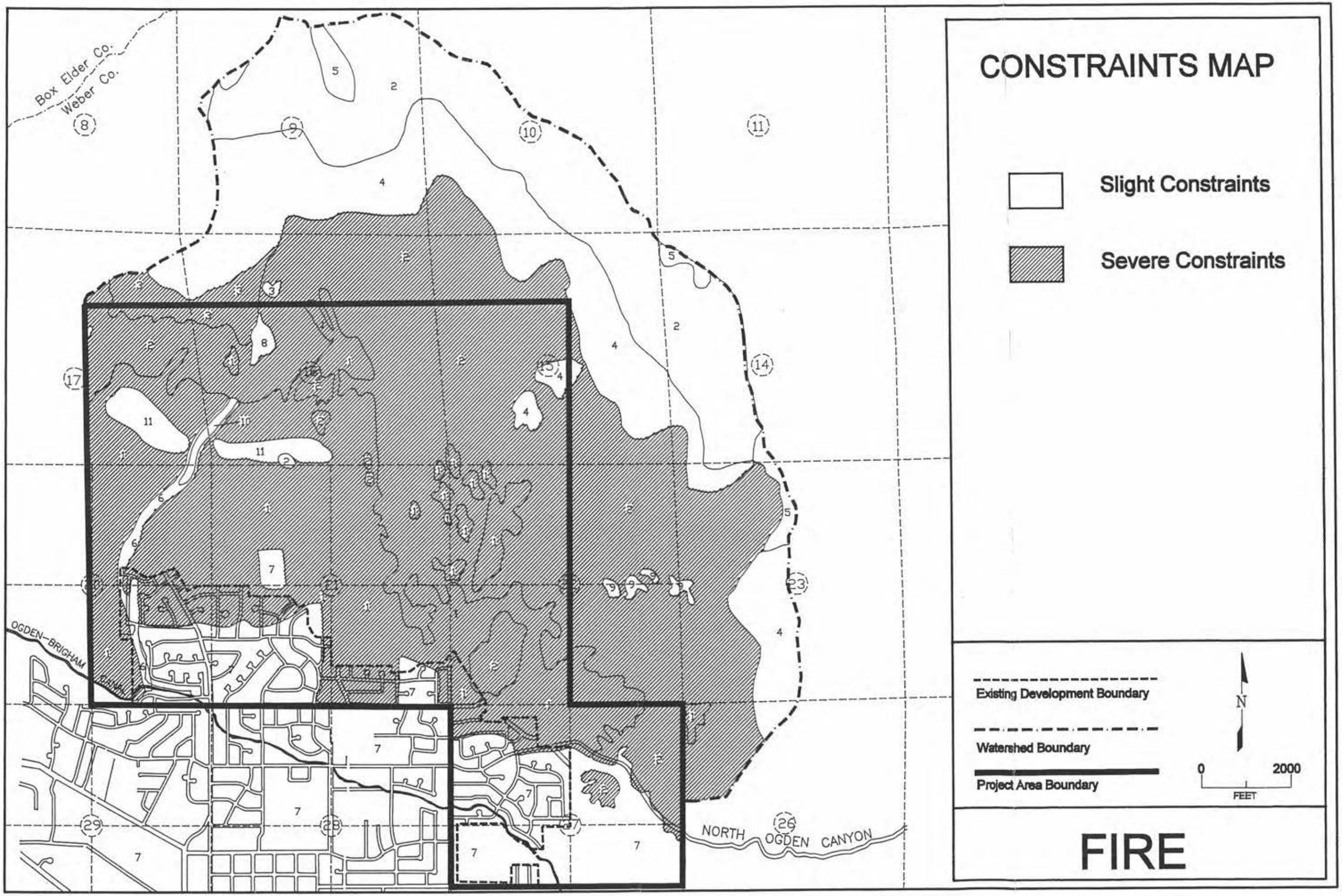

Figure C-19. Fire Constraints Map

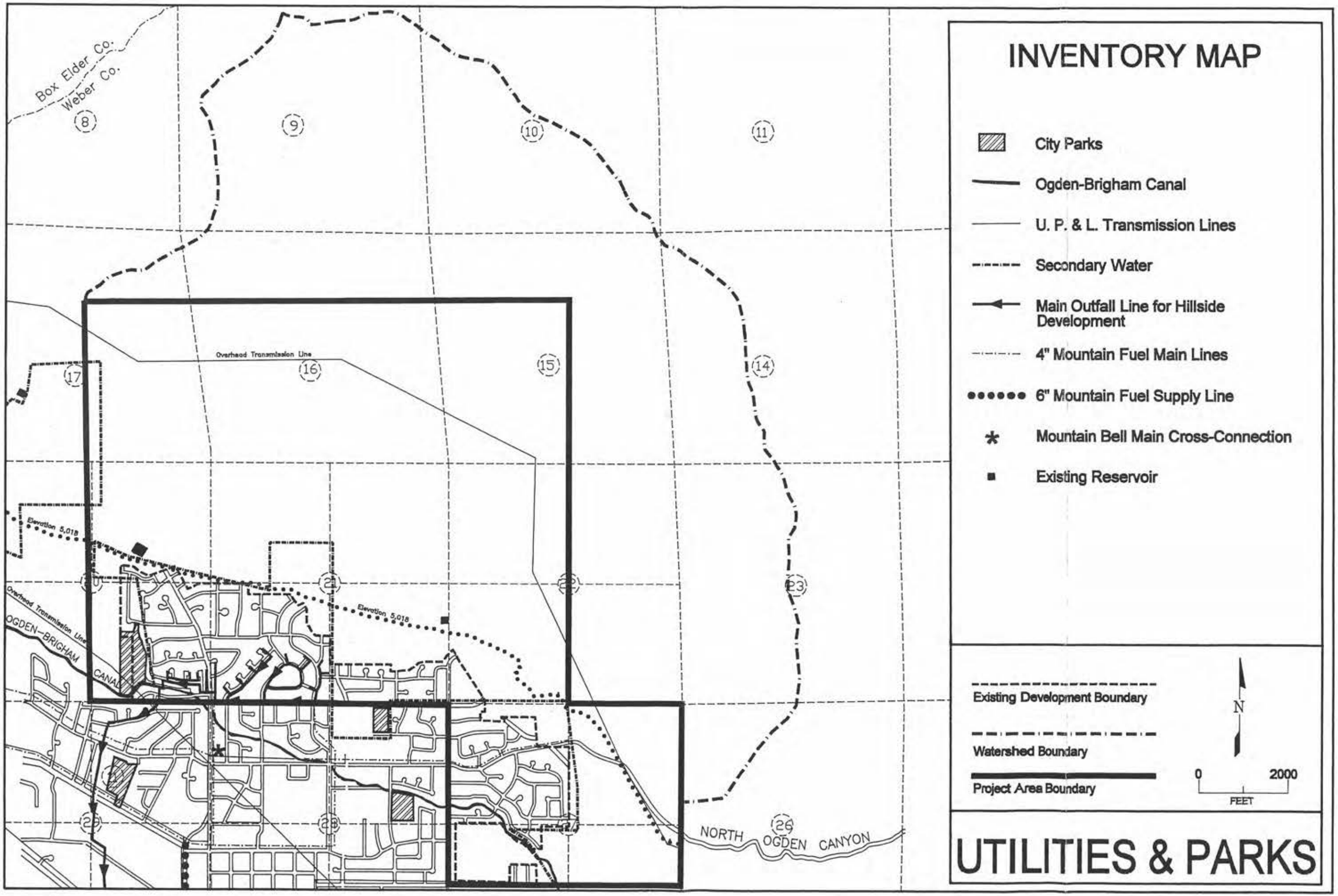

Figure C-20. Utility and Parks Inventory Map

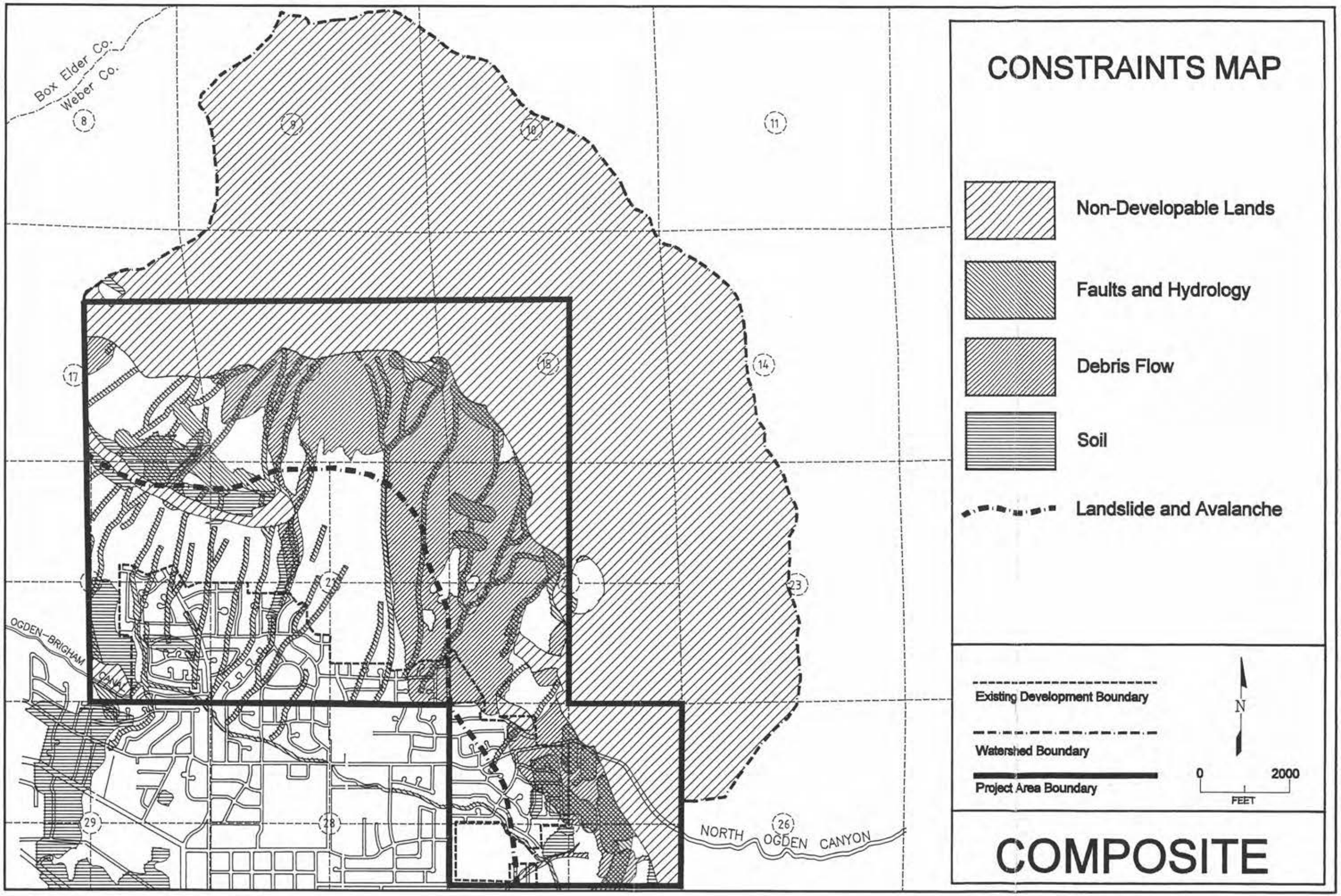

Figure C-21. Composite Constraints Map

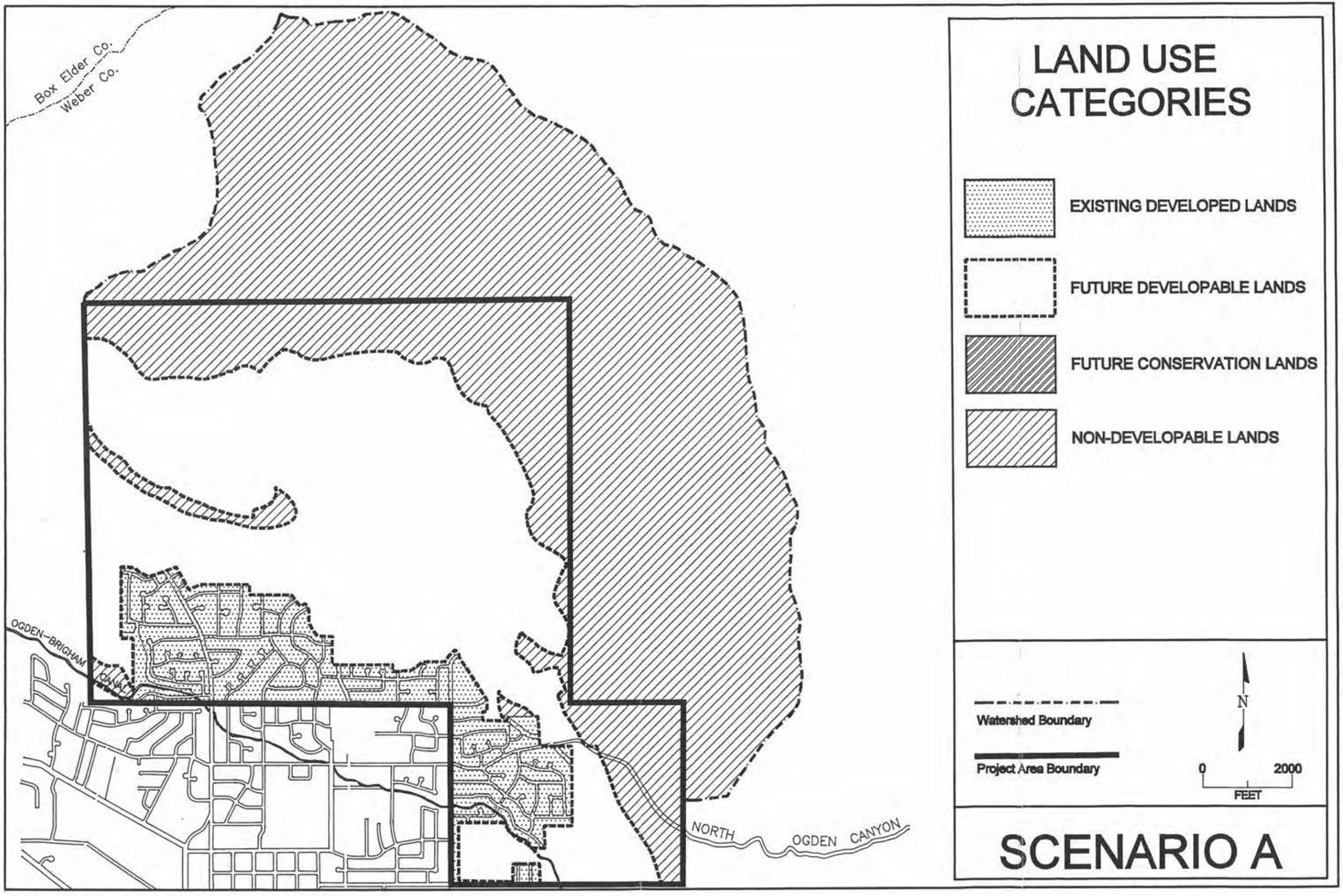

Figure C-22. Development Scenario A

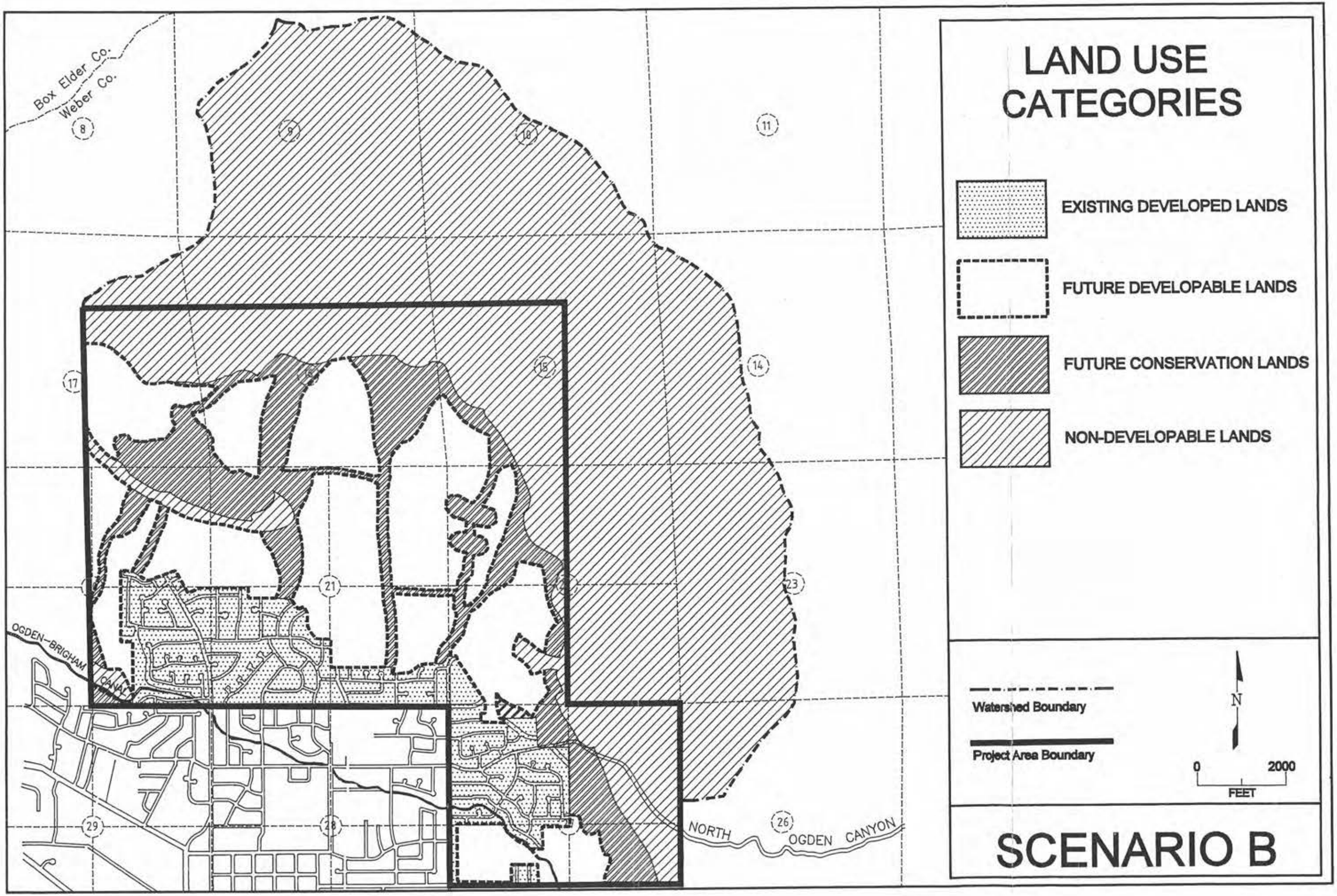

Figure C-23. Development Scenario B

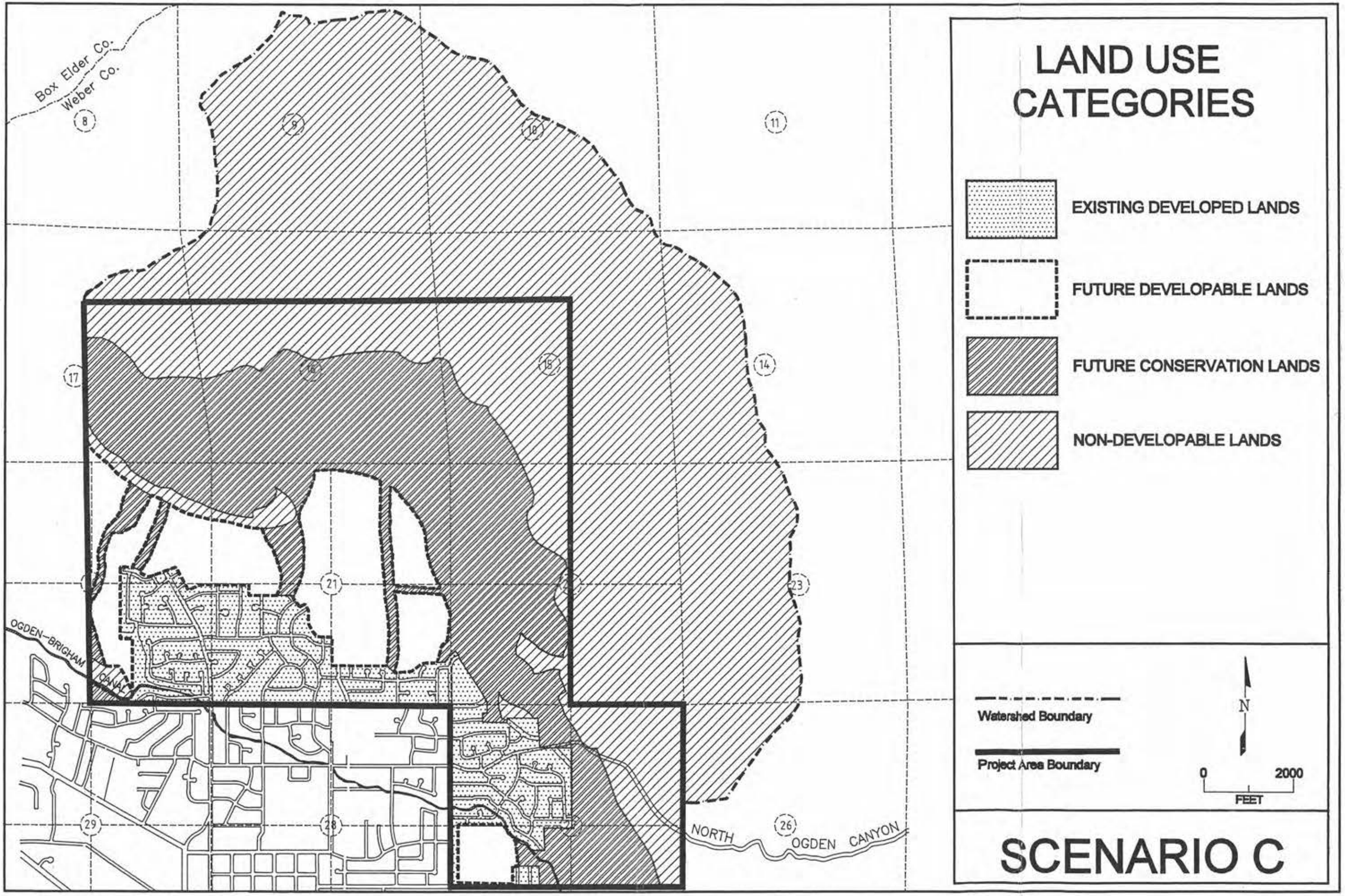

Figure C-24. Development Scenario C

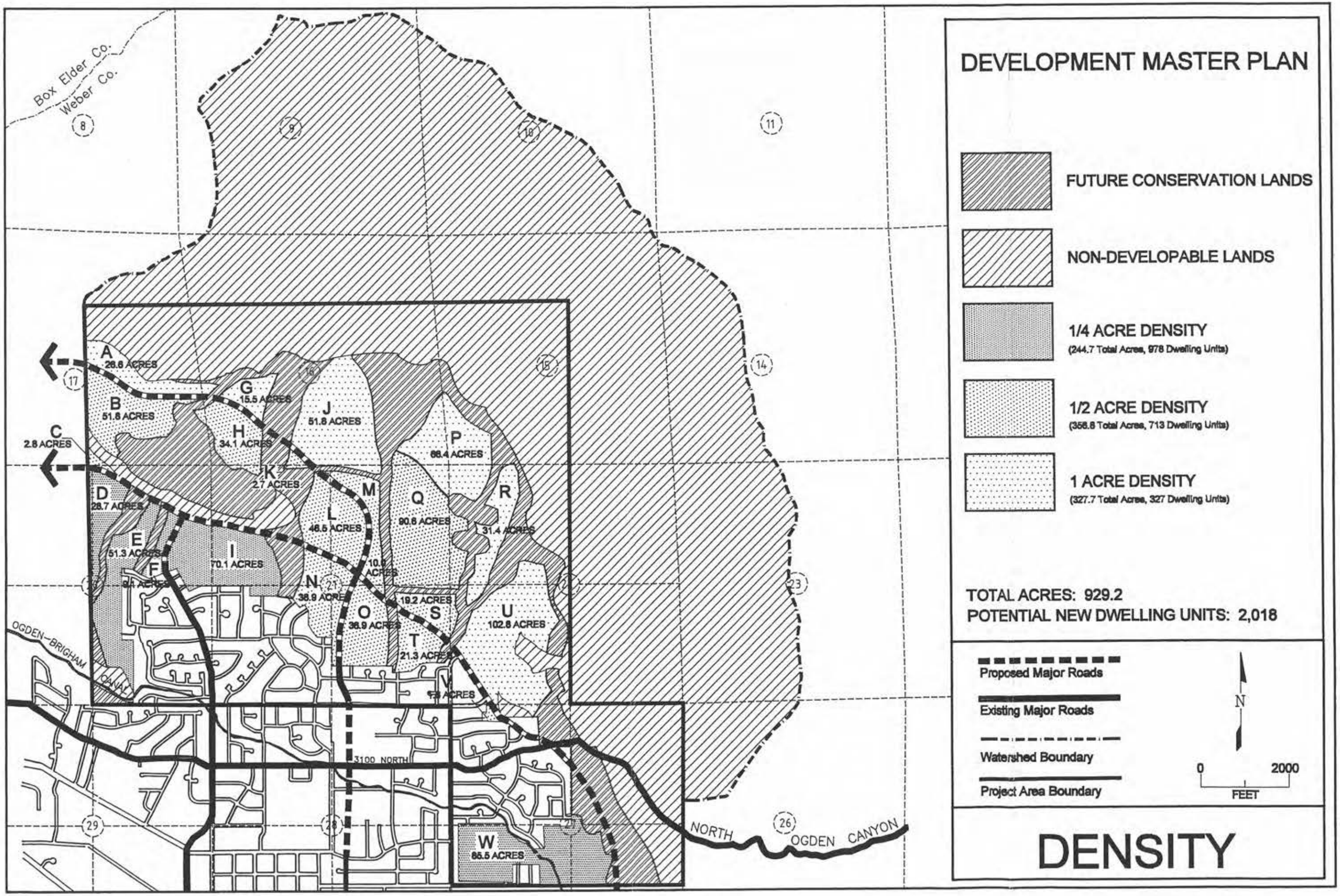

Figure C-25. Development Master Plan Density Map

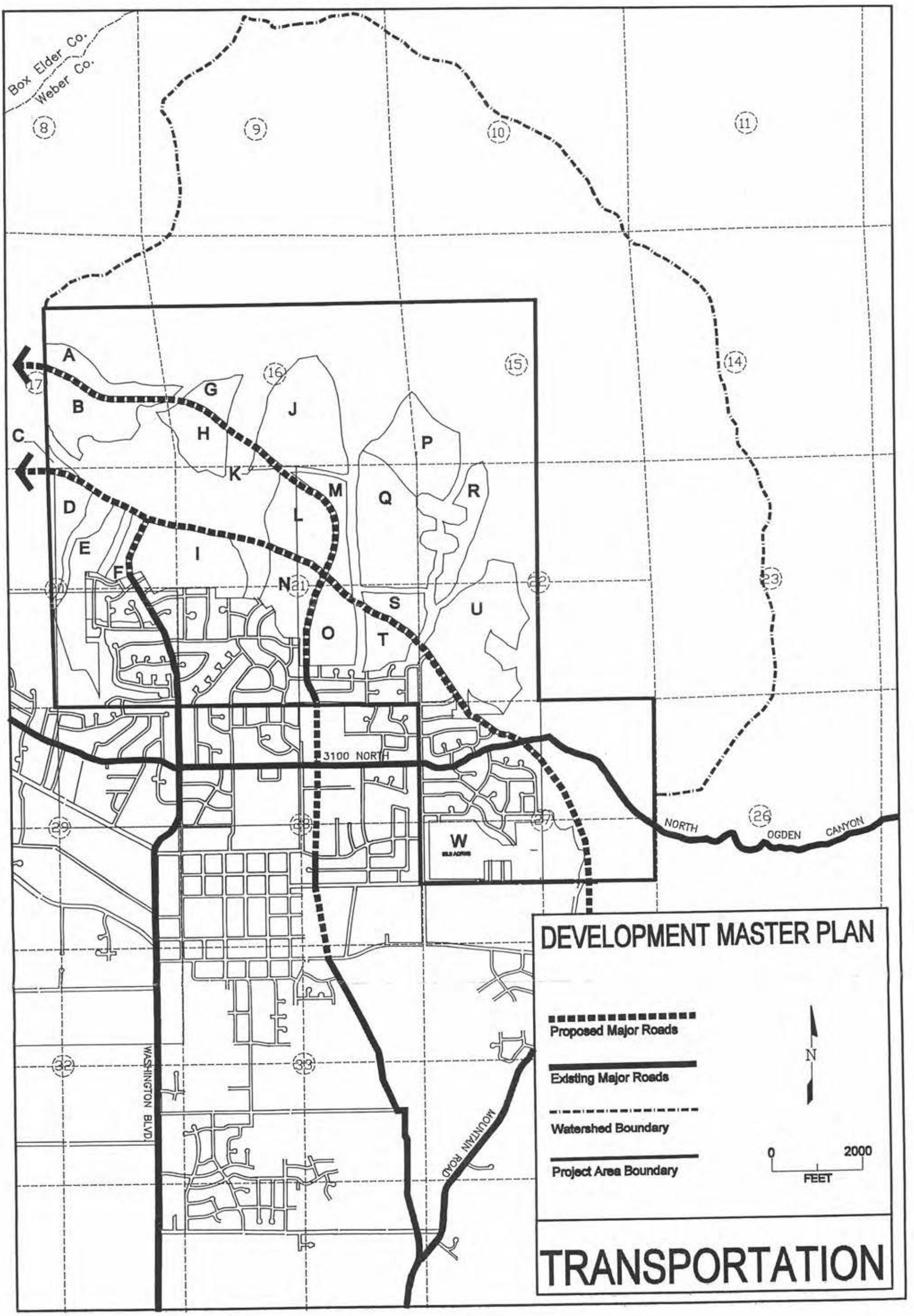

Figure C-26. Development Master Plan Transportation Map

APPENDIX D:

Projections of Surface Runoff

North Hillside Development Study
Drainage Basin National Flood Frequency Program

Drainage Basin*	Recurrence, Interval (Years)						
	2	5	10	25	50	100	500
	Flood Peak Discharge (cubic feet per second)						
Long Bench, Drainage Basin #1	16	29	40	56	71	87	113
Barrett, Drainage Basin #2	11	18	22	27	31	35	46
Paradise Canyon, Drainage Basin #3	16	27	34	44	53	61	80
Mountain Wash, Drainage Basin #4	17	30	39	52	63	75	97
Rice, Drainage Basin #5	12	21	28	38	47	56	73
Slide, Drainage Basin #6	11	20	27	36	45	54	70

*Drainage Basin locations are depicted on Figure C-8, Appendix C.