

**APPENDIX C**  
**LAND USE SUITABILITY ANALYSIS**

# **WORKING PAPER**

## **Pine Nut Allotments (NV) Land Use and Development Procedural Plan**

### **Land Use Suitability Analysis**

#### **Objective**

The objective of this analysis is to determine, based on physical characteristics, which Pine Nut Allotments included in this study would be suitable for major development and how they would rank from the standpoint of developers interested in entering into long-term lease agreements with allotment owners.

#### **Study Area**

This study includes 176 allotments in three clusters. For reference purposes, these three clusters are referred to as the North Allotments (north-northeast of the Minden/Gardnerville urban area and east of the Minden-Tahoe Airport), Northeast Allotments (east and slightly to the south of the North Allotments), and the US 395 Allotments (southeast of Minden/Gardnerville urban area along the US 395 corridor). See Figure 1.

The North Allotments include 10 contiguous allotments. They are in an area of flat to rolling terrain and are accessed by various earth roads. These allotments are also near a developing rural residential area to the west. The Northeast Allotments include 16 allotments and are also characterized by flat to rolling terrain. Elevations in both of these areas are less than 5800 feet.

The US 395 Allotments total 150. These allotments are mostly along the US 395 highway corridor in the Pine Nut Mountain Range which is very rugged, and elevations exceed 8000 feet in many areas. US 395 climbs to around 6000 feet within this highway corridor. Many of these allotments are in areas of steep slopes, and many do not have access or are too far from the highway to be of interest to developers.

#### **Criteria**

Basic criteria for development suitability include the following physical factors:

- Topography
  - Slope
  - Elevation
- Access
  - Distance from existing road network
  - Access via an existing road

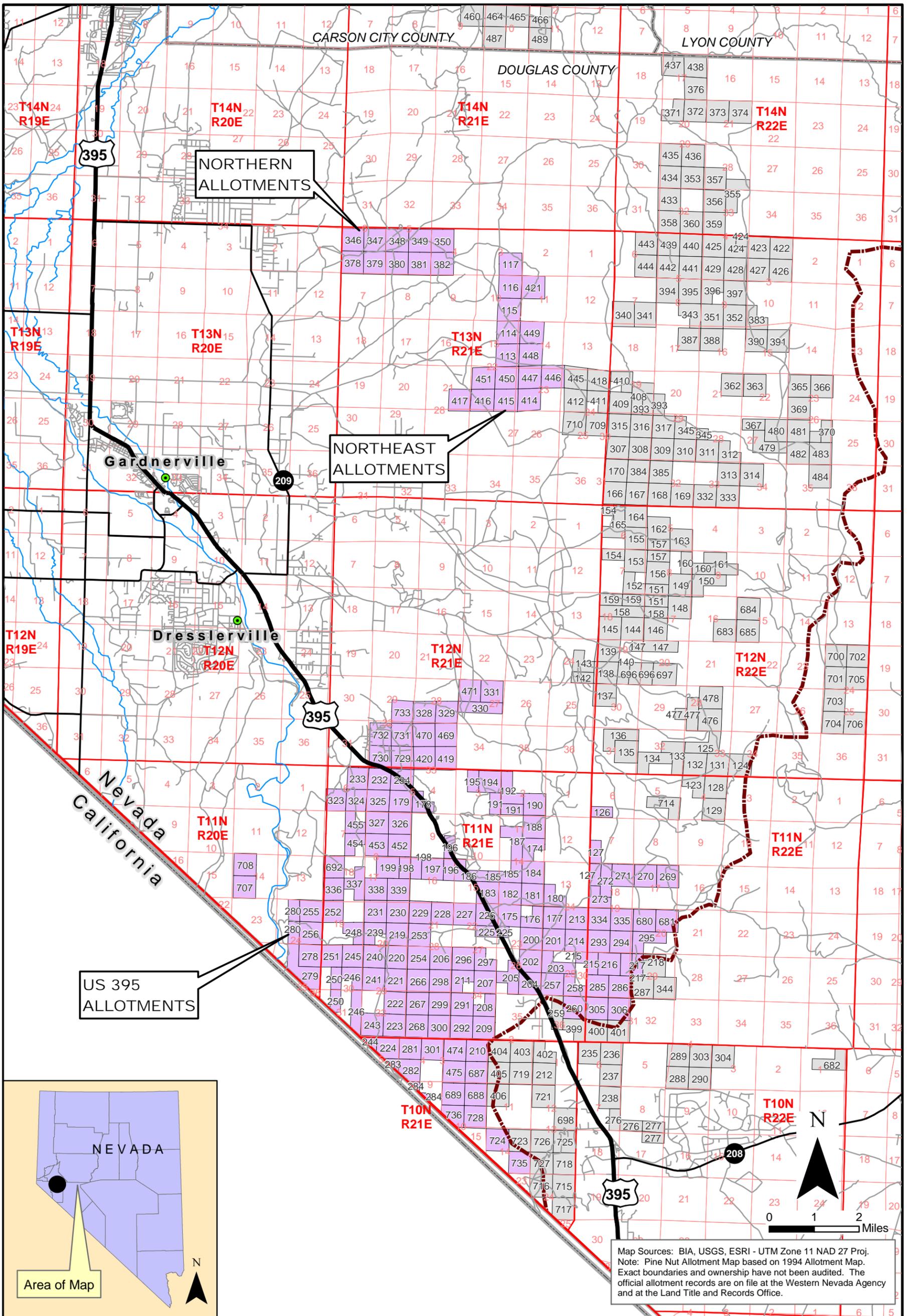


Figure 1

# Study Area

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

**Legend**

-  Carson River Watershed Boundary
-  Allotment Included in Master Land Use Plan
-  Allotment Not Included in Master Plan
-  Local Road
-  50 Meter Contours

- **Public Services**
  - Proximity to power and communications
  - Groundwater potential
  - Ability to provide sewage collection and/or treatment
  
- **Soils**
  - Building site development suitability
  - Construction materials
  - Land management
  - Recreational development
  - Sanitary facilities
  
- **Ownership**
  - Number of allotment owners

Development suitability criteria and corresponding development ratings are summarized in Table 1 and discussed in detail in the sections that follow.

<b>Table 1 Development Suitability Criteria</b>		
<b>Physical Characteristic</b>	<b>Criterion</b>	<b>Suitability Rating</b>
<b>Topography</b>		
Slope	0-6%	Good
	6-9%	Fair
	9-12%	Poor
	12-20%	Very Poor
	Above 20%	Not Developable
Elevation	Less than 5800 ft.	Good
	5800-6500 ft.	Fair
	Greater than 6500 ft.	Not Developable
<b>Access</b>		
US 395 Allotments		
Distance to Paved Road	Adjacent to Paved Road	Good
	Less than 2 miles	Fair
	More than 2 miles	Not Developable
Existing Access Road	Yes	Good
	No	Not Developable
North & Northeast Allotments		
Distance to Paved Road	Adjacent to Paved Road	Good
	Less than 2 miles	Good
	More than 2 miles	Fair
Existing Access Road	Yes	Good
	No	Fair
<b>Public Services</b>		
Power & Communications	Less than 2 miles	Good
	More than 2 miles	Marginal
Accessibility to Groundwater	Less than 5200 ft. Elev.	Fair
	5200-6500 ft. Elev.	Marginal
	Above 6500 ft. Elev.	Very Poor
Suitability for Sewage Treatment	0-6% slope	Good
	6-9% slope	Fair

<b>Table 1 Development Suitability Criteria</b>		
	9-12% slope	Poor
	12-20% slope	Very Poor
	Above 20% slope	Not Feasible
<b>Soils Suitability for Development</b>		
Building Site Development Suitability	Corrosion of Concrete	All criterion rated as follows: Good Fair Poor Very Poor Not Suitable
	Lawns & Landscaping	
	Golf Fairways	
	Local Roads & Streets	
	Shallow Excavations	
	Dwellings & Small Commercial Buildings	
Construction Materials	Sources of Gravel	
	Sources of Roadfill	
	Source of Sand	
	Source of Topsoil	
Land Management	Off Trail & Road Erosion Hazard	
	On Trail & Road Erosion Hazard	
	Suitability for Roads	
Recreational Development	Camp Areas, Picnic Areas, Playgrounds	
	Paths Trails, & Motorcycle Trails	
Sanitary Facilities	Suitable for Septic Tank Absorption Fields	
	Suitability for Sewage Lagoons	
<b>Ownership</b>		
Number of Allotment Owners	0-5	Good
	6-15	Fair
	16-30	Marginal
	31-50	Poor
	>50	Very Poor

## Topography

Both elevation and slope are critical factors to developers. Level land is the most economical to develop. As slopes become steeper, costs increase because of the amount of earthwork that becomes necessary to construct roads, utilities, and pads for buildings.

Slope categories were established as follows and are shown on Figure 2:

- 0-6% Good Suitability. This situation is essentially level land that requires minimal earthwork to construct roads, utilities and prepare pads for housing. This is the most economical land to develop and is the most attractive to developers for both large and small scale developments.
- 6-9% Fair Suitability. Cost for infrastructure and housing pads increase with slope, but development capability is still good in this situation and would be attractive to developers.
- 9-12% Poor Suitability. Costs for infrastructure increase significantly as more earthwork is required for site preparation. Development is still possible, but is less attractive to developers.
- 12-20% Very Poor Suitability. Infrastructure costs become extreme. Road slopes become excessive as 12% is considered a maximum allowable slope. Also, sewage disposal systems become more

difficult and expensive. Small scale development is still possible, but high costs make this situation the least desirable to developers.

- Over 20% Non-developable. Anything over 20% slope becomes too expensive to develop and will not be of interest to developers. Cutting in roads and housing pads involves excessive earthwork, and earth stability and slides can become a major hazard. Also, sewage disposal options become limited and very costly.

Elevation is also a factor to consider in this area. The higher the elevation the greater the snowfall and the longer the snow season. As the amount of snowfall increases, with associated drifting problems, the more problems occur with snow removal to maintain access. Snow removal also has a direct cost impact on the homeowner. As a result, higher elevations are not attractive to developers or to prospective homebuyers.

Based on discussions with BIA personnel at the Western Nevada Agency who are very familiar with the area and with weather patterns, it was determined that any areas above 6500 feet would be undesirable from a developer's standpoint. In the area along US 395, the 6500-foot level also generally coincides with excessive slopes. Figure 3 shows those allotments where elevation becomes a problem.

BIA natural resources personnel also pointed out that the best pine nut resource areas generally begin at the 6500-foot elevation. In addition, the distance to reach groundwater increases as does cost to develop the source.

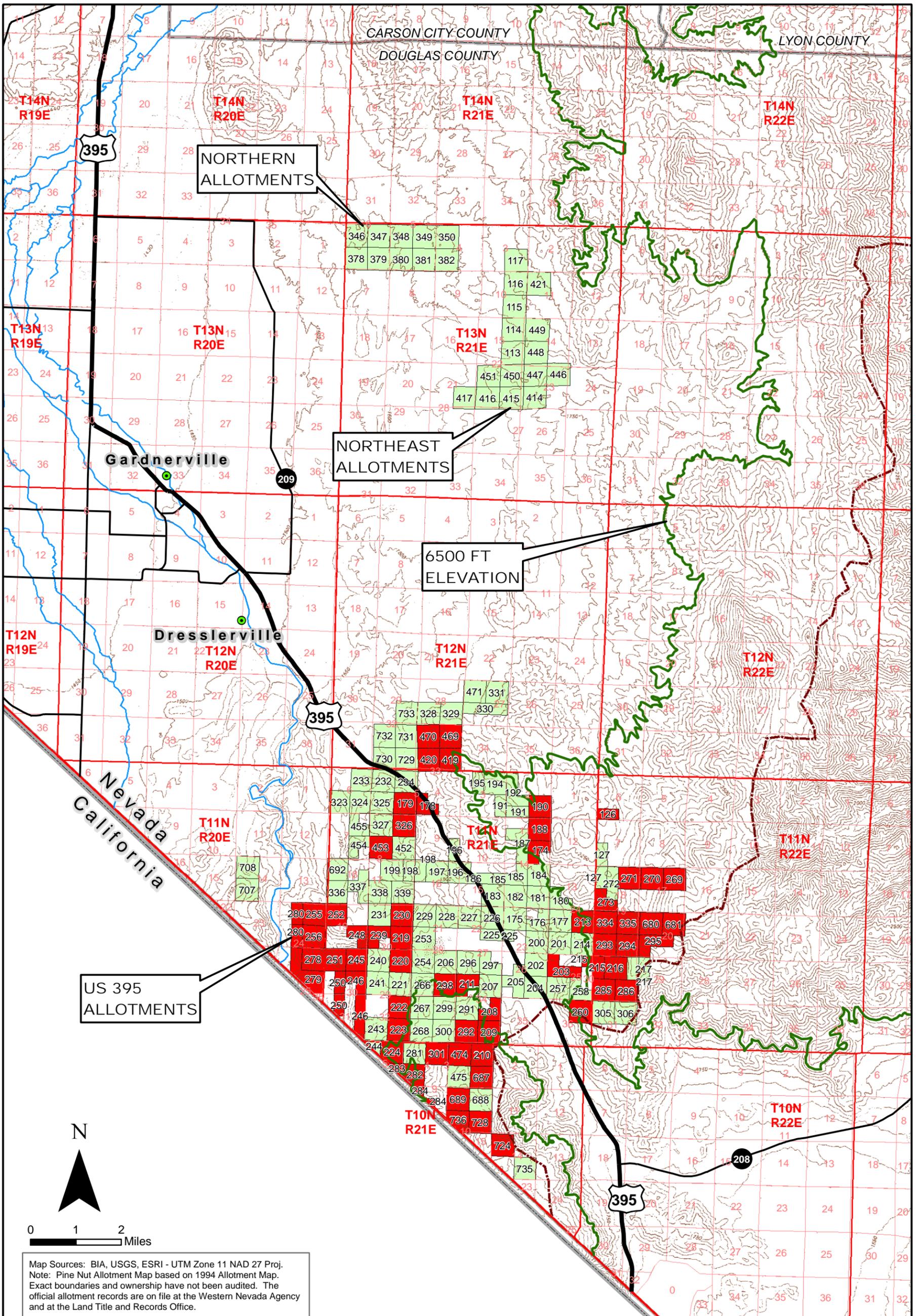
As a result of these factors, any allotments at or above the 6500-foot elevation were considered non-developable. This criterion only affects the allotments along US 395. The North and Northeast allotments are all well under this elevation.

## **Access**

Access is also a critical issue in this situation. From a developer's standpoint, the most desirable areas to develop are those that have or are adjacent to existing roads, particularly improved roads. The further away from an existing public road, the higher the development cost. For example, a 26-foot wide, paved local road (20-foot travelway with 3-foot shoulders) costs around \$700,000 a mile on level or rolling terrain and around \$800,000 in mountainous areas. As a result, allotments that do not have proximity to existing roads, particularly improved public roads, become more costly to develop and are less attractive to developers.

Another factor comes into play with allotted lands. If there is no public road providing existing access to an allotment, the problem of securing an easement through another allotment or allotments can become a major problem because of the fractionated ownerships of the allotments. Instead of dealing with one owner, a developer will need to deal with multiple owners. This prospect is not likely to be attractive to potential developers.

Proximity to an existing road is a particular problem in the US 395 area as there are few public roads, and for all practical purposes, US 395 is the only paved access. As a result, those allotments, with only a few exceptions, that are more than two driving miles from US 395 are considered to be undesirable from a developer's standpoint because of increased cost for access. Figure 4 shows those allotments within two miles of U.S. 395.



Map Sources: BIA, USGS, ESRI - UTM Zone 11 NAD 27 Proj.  
 Note: Pine Nut Allotment Map based on 1994 Allotment Map.  
 Exact boundaries and ownership have not been audited. The  
 official allotment records are on file at the Western Nevada Agency  
 and at the Land Title and Records Office.

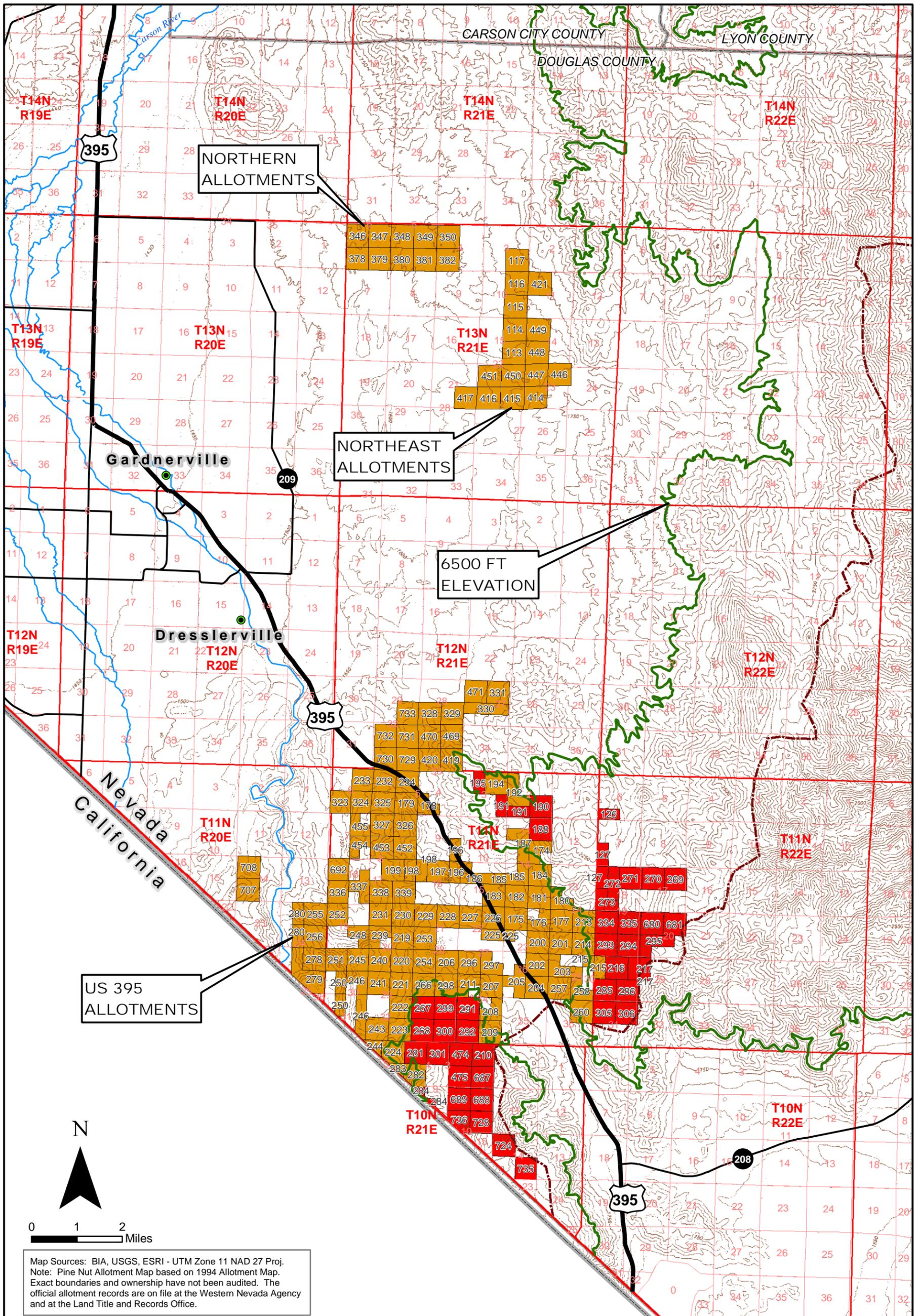
Figure 2  
**Allotment Suitability  
 By Slope**

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

**Legend**

-  Carson River Watershed Boundary
-  6500 Ft. El.
-  Over 20% Slope (Not Developable)
-  Below 20% Slope
-  50 Meter Contours



Map Sources: BIA, USGS, ESRI - UTM Zone 11 NAD 27 Proj.  
 Note: Pine Nut Allotment Map based on 1994 Allotment Map.  
 Exact boundaries and ownership have not been audited. The  
 official allotment records are on file at the Western Nevada Agency  
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**Legend**

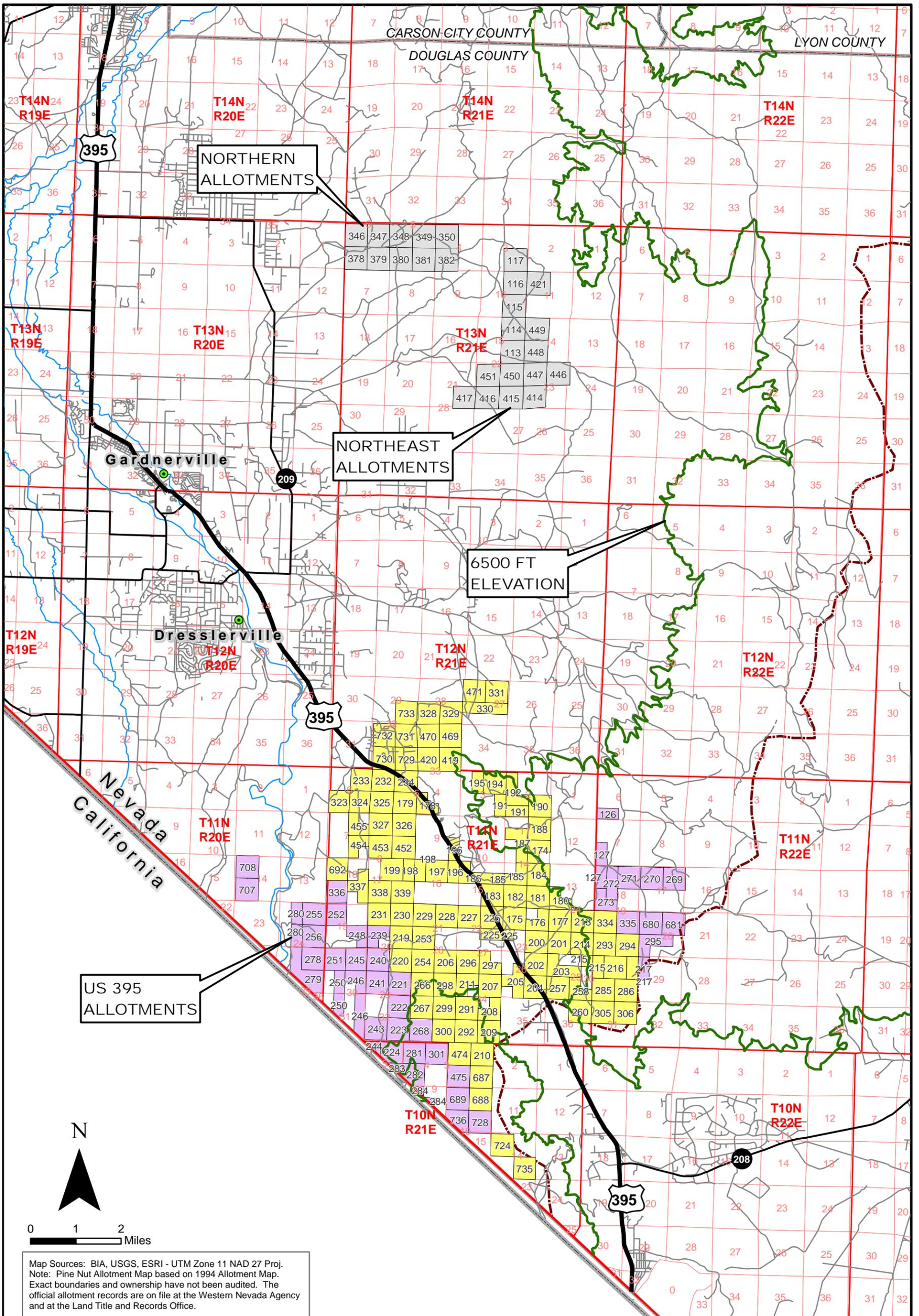
- Carson River Watershed Boundary
- 6500 Ft. El.
- Allotments Below 6500 Ft.
- Allotments Above 6500 Ft. (Not Developable)
- 50 Meter Contours

Figure 3

# Allotments Below 6500 Ft. Elevation

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009



**Legend**

- Carson River Watershed Boundary
- 6500 Ft. El.
- Allotments Within 2 miles of US 395
- Allotments Over 2 Miles From US 395
- Northern Allotments
- Local Road
- 50 Meter Contours

Figure 4

# Allotments Within Approximately 2 Miles of US 395

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

In the overall suitability analysis (see Figure 5), any allotment that did not have any type of road access, or did not have proximity to a road, was also considered non-developable for the foreseeable future.

In the North and Northeast Allotments, access is a different situation. Some allotments are very close to existing public roads or public roads already access them. In addition, rural residential development on fee lands is approaching the allotments or will be there in the near future. As a result, access will be less of an issue over time in these areas, and therefore, most of these allotments are considered ultimately developable even though they are currently not within two miles of an improved public road.

## **Public Services**

### **Proximity to Power and Communications**

As with roads, the proximity of power and communication systems, as well as the ability to extend these systems, is a development concern, particularly if easements need to be secured across other allotments.

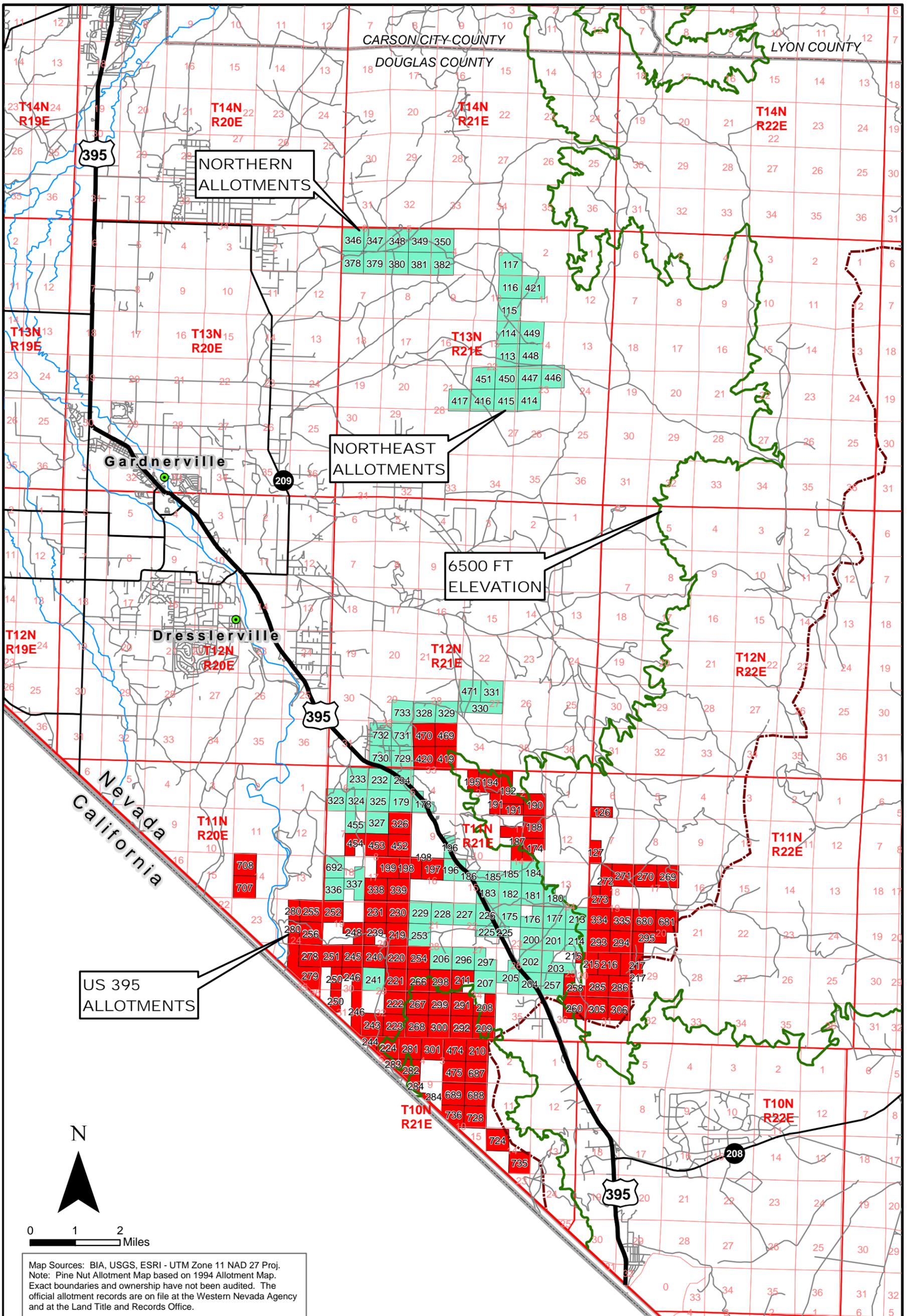
In the US 395 area, power and communications are in place along US 395. Any allotment over two miles distance from service was considered undesirable for development within the near future. In the North and Northeast allotment areas, the situation is similar to road access in that utilities are already close to some allotments and as development proceeds to the east, these utilities will eventually be in proximity to the various allotments.

### **Water Supply and Quality**

Based on discussions with local officials and BIA personnel, the extension of water service from existing public systems is not a viable option in serving the allotments. As a result, the assumption is that each development will need to rely on groundwater for domestic use, whether in a community system, depending on development densities, or individual wells for each property.

As part of this project, a Groundwater Supply and Feasibility Study was conducted. Water resources investigations show that aquifers exist at various elevations in the northern area that includes the North Allotments and Northeast Allotments. The shallow aquifers supply most of the development in that area. It is important to note that these aquifers appear not to be fully recharging. As a result, long-term supply will probably need to come from deeper aquifers. As deeper aquifers are accessed, water quality becomes a greater issue as the water is generally “older” and has had more time to absorb contaminants. Well yields also vary in the area.

Groundwater is also available in the southern area (US 395 Allotments), but primarily along the US 395 corridor and to the west of the Highway in Basalt deposits. Aquifers occur at various elevations, some of which are as deep as 1600 feet. A little distance east of Highway 395 the geology is composed of sedimentary rocks that have very poor potential for groundwater. Below the 5200 foot elevation, potential for groundwater is fair. This includes all the northern allotments and those along the US 395 corridor. Between 5200 feet and 6500 feet, the potential is marginal, particularly east of the highway. Also, wells at these elevations are likely to be deeper and, therefore, more costly to develop. The potential for groundwater above 6500 feet is very poor.



Map Sources: BIA, USGS, ESRI - UTM Zone 11 NAD 27 Proj.  
 Note: Pine Nut Allotment Map based on 1994 Allotment Map.  
 Exact boundaries and ownership have not been audited. The  
 official allotment records are on file at the Western Nevada Agency  
 and at the Land Title and Records Office.

Figure 5  
**Overall Suitability**  
 Pine Nut Allotments, Douglas County, Nevada

- Legend**
- 6500 Ft. El.
  - Local Road
  - Carson River Watershed Boundary
  - 50 Meter Contours
  - Development Suitability  
For Final Consideration
  - Not Suitable

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

Groundwater quality is also of concern, but information is not definitive to use as a criterion. Nitrates may be a problem in the US 395 area, and in the Carson Valley arsenic has been detected. Also, sulfate, dissolved iron, and manganese exceeded EPA standards for safe drinking water at several sample locations. As a result, testing for water quality will be essential and potential developers need to be prepared to treat groundwater for domestic uses.

### **Sewerage Facilities**

As with water supply and distribution, the extension of sewer service from existing public systems is not a viable option in serving the allotments. As a result, the assumption is that each development will need to provide for sewage collection and treatment whether in a community system or individual systems. Density of development and terrain impact the viability and cost of sewage collection and treatment. Community collection systems can be viable up to approximately one acre parcels. Lower densities will require individual systems for each house.

Terrain is a factor for both community systems and individual systems as the steeper the terrain the more problems in finding appropriate sites and the more cost in constructing these systems. Slopes from 0-9% are considered viable. Minimal earthwork is required and the types and depths of soils are generally more conducive to process treatment systems as well as drain field disposal. Slopes from 9-20% are considered marginal as more excavation is required to construct systems, and soil depth tends to be more shallow. Costs increase considerably in these situations. Slopes of over 20% are considered non-viable. Usually soils are very shallow at these slopes, sometimes soils have to be imported for sub-surface systems, and excavation costs can become prohibitive.

### **Soils Suitability for Development**

After the initial suitability analysis was conducted, the BIA and the USDA Natural Resources Conservation Service (NRCS) recently completed a Rangeland Resource Inventory for the Pine Nut Allotments that included a detailed soils study. This study (*Pine Nut Allotments Rangeland Resource Inventory, Final Report, December 2007*) rated the suitability of the various soil types to support differing uses. Based on the NRCS report, the development suitability of those allotments that were identified as having development potential was analyzed (See Appendix A for the detailed analysis.) Since the soils analysis was an extensive exercise, the analysis was limited to those allotments that were identified as potentially developable in this Land Use Suitability Analysis.

For residential, commercial, and light industrial development, six critical suitability factors were evaluated. These included: local roads and streets, shallow excavations, dwellings and small commercial buildings, source of roadfill, septic tank absorption fields, and sewage lagoons. These factors are very critical as they have a direct correlation to the cost of development. As the soil suitability decreases, costs for development increase. For example, shallow soil depth requires rock excavation for building foundations and for construction roads, and poor soils for sewage absorption fields means some type of community system, and if soils are not suitable for lagoons, some type of treatment process would be required, all of which add considerable cost to development projects, which in turn directly affect a developer's ability to compete in the market place.

Even though soils may not be the best for development, poor soil conditions can be mitigated to some extent, such as through excavation and importing appropriate soil types, lower density development, or use of community wastewater treatment facilities. Even though the soils in the area are not the best for development, it should be noted that development has occurred in some marginally suitable areas, such as the allotment where the Pine View Estates are located. Soil problems can be overcome, but it adds to the

cost of development and impacts the overall feasibility of a proposed development. Ultimately, local market conditions determine whether the costs of development are warranted to maintain competitiveness in the marketplace.

## **Ownership**

Although ownership is not a physical characteristic, the number of owners for each allotment is a factor that will play a role in the desirability of an allotment to a developer. The fewer owners, the more chance that consensus can be reached and in a shorter time frame. The more owners, the less chance that even a majority can be reached, and if one can be reached it may take considerable effort and time, all of which increases the cost to a developer. This problem was pointed out during the first set of public meetings where a number of allotment owners remarked that with multiple ownerships, reaching agreement on anything was very difficult and impossible in many cases. It should be noted that the only existing development (Pine View Estates) occurred on an allotment with only one owner. The detailed ownership analysis is included in Appendix B.

Ownership numbers range from one to well over 100 in a number of cases. The following criteria were established to evaluate the attractiveness to a developer:

- 0-5 owners—good
- 6-15 owners—fair
- 16-30 owners—marginal
- 31-50 owners—poor
- Greater than 50 owners—very poor

Realistically, a developer is not going to be attracted to allotments with more than 15 owners. However, like poor soil suitability, the multiple ownership issue can be mitigated to a great degree if the allotment owners were to agree to establish a legal entity, such as a development corporation, with a small board of directors that are empowered to make binding decisions. Setting up such an entity, however, also requires agreement by a majority of owners.

## **Findings**

Based on the physical characteristics discussed above, the overall findings are summarized for each allotment area in the following. Table 2 shows the suitability rankings for the various criteria used in the evaluation, and Figures 6 illustrate development suitability rankings for each allotment by location.

### **North Allotments**

All of the 10 allotments in this area are totally, or in part, developable. Only one allotment has potential slope problems in some areas, but development can be designed to avoid that portion of the allotment. Rural residential development is extending from the west and is almost at the western allotments in the group. Public roads and power and communication systems are also in proximity and will likely be extended to the east as urbanization occurs.

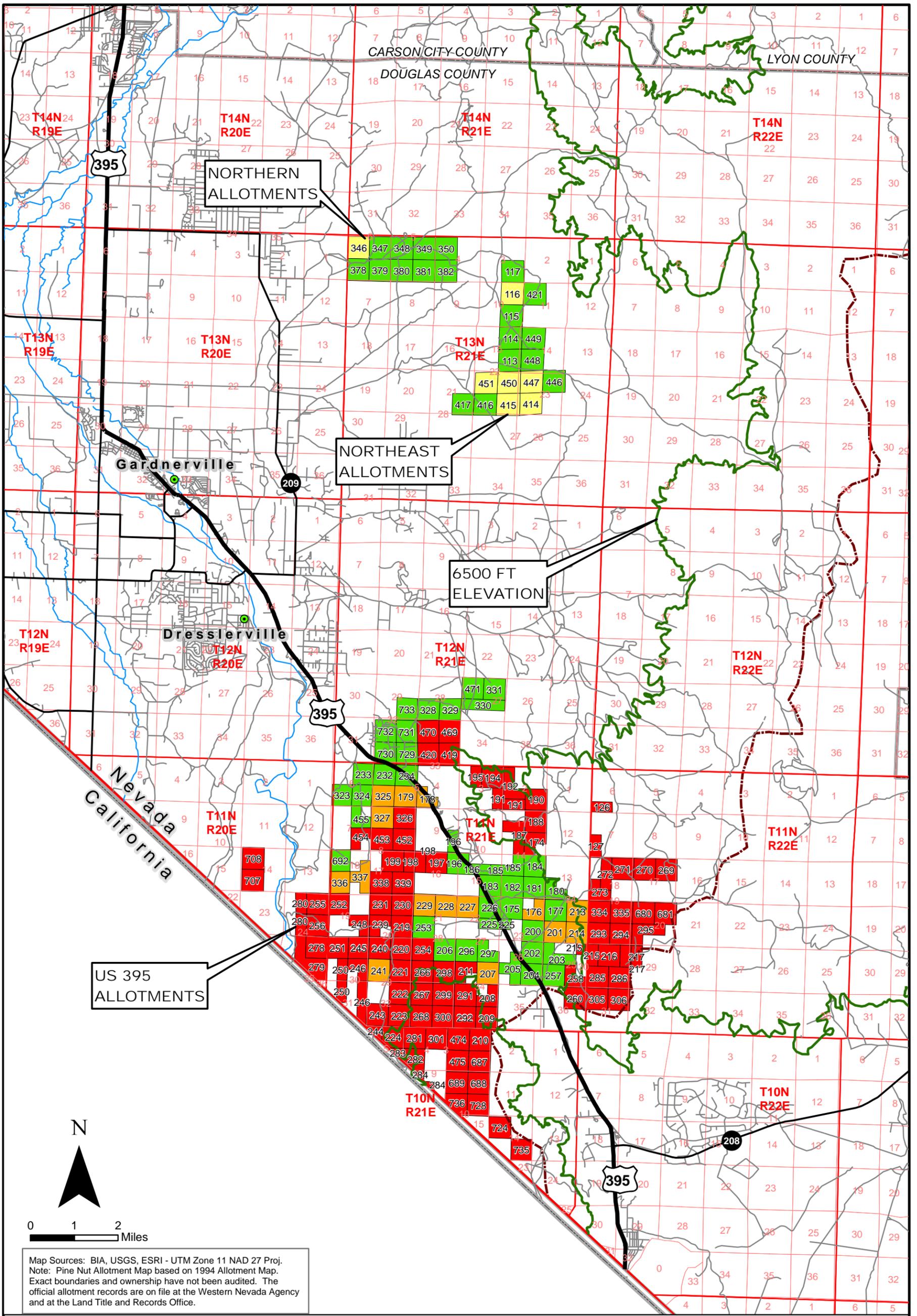


Figure 6

# Development Suitability

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

**Legend**

- 6500 Ft. El.
- Local Road
- Carson River Watershed Boundary
- 50 Meter Contours
- Development Suitability**
- Good
- Fair
- Marginal
- Not Developable

In general, soils suitability for shallow excavations and for construction of dwellings or commercial structures is not particularly good. Also, ratings for community sewage lagoons are very poor in this area. However, a number of soils have fair suitability ratings for septic tank drainfields. As a result, large lot development, similar to that which has occurred to the west of these allotments, with individual septic tanks with drainfields may be possible in some areas. Otherwise, community wastewater treatment facilities probably will be necessary and will increase the cost of development.

The number of allotment owners in this area is fairly attractive as well, since over half have 15 or less owners, although none has five or less owners.

### **Northeast Allotments**

All of the 16 allotments in this area are totally developable. Although further to the east than the North Allotments, rural residential development from the southwest will eventually extend over the mid- and long-term to this block of allotments. Public roads and power and communication systems also will be extended with this development eventually making these allotments very attractive for development.

Soil problems in this area are similar to the North Allotments—not particularly good for shallow excavations and for dwellings and small commercial structures. Likewise, there are some soil types where septic tank drainfields will probably be possible, and could support low density development.

The number of allotment owners is also workable for many of these allotments as half have 15 or less owners and five allotments have 5 or less owners.

### **US 395 Allotments**

The US 395 corridor has a variety of terrain and elevation issues as well as access problems. The analysis shows that 39 allotments are suitable for development, 15 have marginal suitability, and 96 are not suitable. (See Figure 5 for the locations of developable allotments.) The most attractive allotments for development lie adjacent to US 395 where access is direct and there is fairly level terrain. A few other allotments are also attractive on the north and northwest boundary of the allotments, due to favorable slopes and existing access.

It should be noted that several allotments were included even though they did not strictly meet development criteria, because they were either adjacent to US 395, had other access, or had fairly level terrain.

The biggest problems for development along this corridor are excessive slopes, high elevations, and lack of access and/or excessive distance from US 395. Also, groundwater availability diminishes east of US 395.

Because of the steeper terrain and shallow soils, soil conditions in this area are less desirable for development than the northern allotments. One of the biggest development cost factors in this area will be the need for community sewage treatment systems as almost uniformly the soils are not suitable for either septic tank drainfields or for community lagoon systems. As was the case with the Pine View development, wastewater treatment plants most likely will be required. Also, soil suitability for shallow excavation and for dwellings and small scale commercial developments is not very good and will be a problem in areas where slopes increase.

Ownership is a much bigger issue in this area. Overall, only 32% of the allotments have 15 or less owners and 13% have five or less owners. However, 31% of the allotments have 50 or more owners, including a number with over 100 owners.

## **Data Sources**

USGS Topographic Data  
USDA Natural Resources Conservation Service  
BIA unpublished data

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**Table 2  
LAND USE ASSESSMENT MATRIX**

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS												HIGHEST & BEST USE							
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Topography		Accessibility		Public Services & Health & Safety			Cultural Res.	Natural Resources			Commercial Residential			Commercial Investment			Comm. Rec.	Other	
						Slope (%)	Altitude	Existing Road	Miles from paved road	Developable (yes/no)	Sewage Treatment	Proximity to Power (miles)	Proximity to Communications (mi.)	Pinon Forest (quality pin nut resource)	Groundwater Potential	Soils Suitability for development*	Identified Mineral Resources	High Density (subdivision)	Medium Density	Low Density (rural)	Highway Retail	Neighborhood Services	Light Industrial	Destination	Natural Resource Area (timber, pine nuts, grazing, etc.)
346	Deve Mo St	148.80	North	10	Undev.	12-20	<5800	Yes	1.0	Yes	Marginal	1.0	1.0	No	Fair	Poor	No	No	No	M	No	No	No	M	
347	Mary Dick	161.30	North	10	Undev.	6-9	<5800	Yes	1.5	Yes	Yes	1.5	1.5	No	Fair	Fair	No	M	Yes	Yes	No	M	No	Yes	
348	Wallace Dic	161.45	North	10	Undev.	0-6	<5800	Yes	2.0	Yes	Yes	2.0	2.0	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
349	Walking Dic	160.93	North	10	Undev.	0-6	<5800	Yes	2.5	Yes	Yes	2.5	2.5	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
350	Joe Dick	160.72	North	10	Undev.	6-9	<5800	Yes	3.0	Yes	Yes	3.0	3.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
378	LittleCharley	148.80	North	24	Undev.	0-6	<5800	Yes	1.0	Yes	Yes	1.0	1.0	No	Fair	Fair	No	Yes	Yes	Yes	No	M	No	Yes	
379	Susie Charl	160.00	North	24	Undev.	0-6	<5800	Yes	1.5	Yes	Yes	1.5	1.5	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
380	Wm Dave T	160.00	North	24	Undev.	0-6	<5800	Yes	2.0	Yes	Yes	2.0	2.0	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
381	Saddie Tony	160.00	North	24	Undev.	0-6	<5800	No	2.5	Yes	Yes	2.5	2.5	No	Fair	Poor	No	Yes	Yes	Yes	No	M	No	Yes	
382	Willie Tondy	160.00	North	15	Undev.	6-9	<5800	Yes	3.0	Yes	Yes	3.0	3.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
	<b>Total Ac.</b>	1582.00	North Allotments																						
117	Sussie Jim	160.00	NE	13	Undev.	0-6	<5800	Yes	5.0	Yes	Yes	5.0	5.0	No	Fair	Poor	No	Yes	Yes	Yes	No	M	No	Yes	
116	Louis Jim or	160.00	NE	27	Undev.	6-9	<5800	No	5.0	Yes	Yes	5.0	5.0	No	Fair	Poor	No	M	Yes	Yes	No	M	No	Yes	
421	Daw-Lah-Lu	160.00	NE	15	Undev.	6-9	<5800	Yes	6.0	Yes	Yes	5.5	5.5	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
115	John Charley	160.00	NE	27	Undev.	0-6	<5800	Yes	5.5	Yes	Yes	4.5	5.5	No	Fair	Poor	No	Yes	Yes	Yes	No	M	No	Yes	
114	Maggie Jim	160.00	NE	27	Undev.	0-6	<5800	Yes	6.0	Yes	Yes	3.5	3.5	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
449	Sussie Jim	160.00	NE	38	Undev.	0-6	<5800	Yes	6.5	Yes	Yes	4.0	4.0	No	Fair	Poor	No	Yes	Yes	Yes	No	M	No	Yes	
113	Jim Iaciah	160.00	NE	27	Undev.	6-9	<5800	Yes	7.5	Yes	Yes	3.5	3.5	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
448	Old Jim or A	160.00	NE	38	Undev.	0-6	<5800	Yes	7.0	Yes	Yes	4.0	4.0	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
451	Mogan Dav	160.00	NE	14	Undev.	6-9	<5800	No	8.0	Yes	Yes	3.0	3.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
450	Dave or Sos	160.00	NE	24	Undev.	9-12	<5800	No	8.5	Yes	Marginal	3.5	3.5	No	Fair	No	No	No	M	Yes	No	No	No	M	
447	Wm Fender	160.00	NE	2	Undev.	6-9	<5800	No	9.0	Yes	Yes	4.0	4.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
446	Mary Fende	160.00	NE	2	Undev.	0-6	<5800	Yes	9.5	Yes	Yes	4.5	4.5	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
417	Mary Jacks	160.00	NE	26	Undev.	0-6	<5800	Yes	7.0	Yes	Yes	2.5	2.5	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	Yes	
416	Silas Jacks	160.00	NE	2	Undev.	6-9	<5800	Yes	7.5	Yes	Yes	3.0	3.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
415	Cajbert Jack	160.00	NE	1	Undev.	6-9	<5800	No	8.0	Yes	Yes	3.5	3.5	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
414	Jack Jacks	160.00	NE	1	Undev.	6-9	<5800	No	8.5	Yes	Yes	4.0	4.0	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	Yes	
	<b>Total Ac.</b>	2560.00	Northeast Allotments																						
471	Maggie Arth	160.00	US 395	145	Undev.	0-6	<5800	Yes	>2.0	Yes	Yes	>2.0	>2.0	No	Fair	V. Poor	No	Yes	Yes	Yes	No	No	No	No	
331	Delie Aleck	160.00	US 395	48	Undev.	6-9	<6500	Yes	>2.0	Yes	Yes	>2.0	>2.0	No	M	V. Poor	No	M	M	Yes	No	No	No	No	
733	Saverse Sn	160.00	US 395	35	Undev.	6-9	<5800	Yes	1.1	Yes	Yes	1.1	1.1	No	Fair	V. Poor	No	M	Yes	Yes	No	No	No	No	
328	Aleck or Co	160.00	US 395	5	Undev.	12-20	5800	Yes	1.3	Yes	Marginal	1.3	1.3	No	M	V. Poor	No	No	No	M	No	No	No	No	
329	Lucy Aleck	160.00	US 395	41	Undev.	6-9	5800	Yes	1.5	Yes	Yes	1.5	1.5	No	M	V. Poor	No	No	M	Yes	No	No	No	No	
330	Minnie Aleck	160.00	US 395	46	Undev.	9-12	5800	Yes	2.0	Yes	Marginal	2.0	2.0	No	M	V. Poor	No	No	M	M	No	No	No	No	

**Table 2  
LAND USE ASSESSMENT MATRIX**

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS												HIGHEST & BEST USE							
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Topography		Accessibility		Public Services & Health & Safety			Cultural Res.	Natural Resources			Commercial Residential			Commercial Investment			Comm. Rec.	Other	
						Slope (%)	Altitude	Existing Road	Miles from paved road	Developable (yes/no)	Sewage Treatment	Proximity to Power (miles)	Proximity to Communications (mi.)	Pinon Forest (quality pin nut resource)	Groundwater Potential	Soils Suitability for development*	Identified Mineral Resources	High Density (subdivision)	Medium Density	Low Density (rural)	Highway Retail	Neighborhood Services	Light Industrial	Destination	Natural Resource Area Management Area (timber, pine nuts, grazing, etc.)
732	Josie Snook	160.00	US 395	4	Subdiv.	6-9	<5800	Yes	0.4	Yes	Yes	0.4	0.4	No	Fair	V. Poor	No	M	Yes	Yes	No	No	No	No	
731	Geo Snooks	160.00	US 395	24	Homes	6-9	<5800	Yes	0.6	Yes	Yes	0.6	0.6	No	Fair	V. Poor	No	M	Yes	Yes	No	No	No	No	
470	Annie Tom	160.00	US 395	46	Undev.	>20	5800	Yes	1.8	No	No	0.8	0.8	No	V. P.		No	No	No	No	No	No	No	Yes	
469	Joe (Bart) T	160.00	US 395	11	Undev.	>20	<6500	No	2.5	No	No	1.1	1.1	No	M		No	No	No	No	No	No	No	Yes	
730	Tillie Snook	160.00	US 395	14	Homes	0-6	<5800	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	M	Yes	Yes	Yes	Yes	M	M	
729	Indian Snoo	162.50	US 395	26	Homes	0-6	<5800	Yes	0.3	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	M	Yes	Yes	Yes	Yes	M	M	
420	Sussie (No3	160.00	US 395	150	Undev.	>20	5800	Yes	0.8	No	No	0.4	0.4	No	V. P.		No	No	No	No	No	No	No	Yes	
419	(Wiliamholo	160.00	US 395	84	Undev.	>20	6500	No	1.3	No	No	0.7	0.7	Marginal	V. P.		No	No	No	No	No	No	No	Yes	
233	Annie Joe	161.08	US 395	7	Undev.	6-9	<5800	Yes	0.3	Yes	Yes	0.2	0.2	No	Fair	V. Poor	No	M	Yes	Yes	No	M	No	M	
232	Little Joe or	161.43	US 395	1	Undev.	9-12	<5800	Yes	0.05	Yes	Marginal	0.1	0.1	No	Fair	V. Poor	No	M	M	Yes	M	M	No	No	
234	Maggie Joe	98.10	US 395	2	Subdiv.	6-9	<5800	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	Yes	Yes	Yes	M	M	No	No	
195	Ogie Smoky	119.39	US 395	61	Undev.	12-20	>6500	Yes	2.7	No	Marginal	1.1	1.1	Yes	V. P.		No	No	No	No	No	No	No	Yes	
194	Johnny Smc	158.07	US 395	61	Undev.	9-12	>6500	Yes	2.3	No	Marginal	1.3	1.3	Yes	V. P.		No	No	No	No	No	No	No	Yes	
192	Sally Pede	158.82	US 395	83	Undev.	12-20	>6500	No	2.8	No	Marginal	1.7	1.7	Yes	V. P.		No	No	No	No	No	No	No	Yes	
323	Eliza Washi	154.25	US 395	11	Undev.	9-12	<5800	Yes	1.0	Yes	Marginal	0.8	0.8	No	Fair	V. Poor	No	No	M	Yes	No	No	No	No	
324	Geo Washir	160.00	US 395	8	homes	9-12	<5800	Yes	0.8	Yes	Marginal	0.7	0.7	No	Fair	V. Poor	No	No	M	Yes	No	No	No	No	
325	Daisy Wash	160.00	US 395	6	Undev.	9-12	<5800	No	1.1	Marginal	Marginal	0.4	0.4	No	Fair	V. Poor	No	No	M	Yes	No	No	No	No	
179	Sally Jim	160.00	US 395	79	Undev.	>20	<6500	Yes	0.1	Marginal	No	0.1	0.1	No	Fair	V. Poor	No	No	No	M	No	No	No	No	
178	Jim Or Coi-	120.00	US 395	63	Undev.	>20	<6500	Yes	0.05	Marginal	No	0.1	0.1	No	Fair	V. Poor	No	No	M	Yes	No	No	No	No	
191	Annie Pede	160.00	US 395	57	Undev.	12-20	>6500	Yes	2.0	No	Marginal	1.3	1.3	Yes	V. P.		No	No	No	No	No	No	No	Yes	
190	Bil El E Lo V	160.00	US 395	114	Undev.	>20	>6500	Yes	>3.0	No	No	1.9	1.9	Yes	V. P.		No	No	No	No	No	No	No	Yes	
126	Jim Or Top	157.13	US 395	42	Undev.	>20	>6500	Yes	>3.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	Yes	
455	Birdy Bath	120.00	US 395	10	Undev.	9-12	<5800	Yes	1.4	Yes	Marginal	1.4	1.4	No	Fair	V. Poor	No	No	No	Yes	No	No	No	No	
327	Nannie Bill	160.00	US 395	7	Undev.	12-20	<6500	No	1.8	Marginal	Marginal	0.8	0.8	No	Fair	V. Poor	No	No	No	M	No	No	No	No	
326	Da-Mah-Sh	160.00	US 395	5	Undev.	>20	<6500	No	1.1	No	No	0.4	0.4	No	Fair		No	No	No	No	No	No	No	Yes	
187	Dave Cheer	160.00	US 395	49	Undev.	12-20	6500	Yes	2.4	No	Marginal	1.0	1.0	Marginal	V. P.		No	No	No	No	No	No	No	No	
188	Cora Cheer	160.00	US 395	31	Undev.	>20	>6500	Yes	2.6	No	No	1.5	1.5	Yes	V. P.		No	No	No	No	No	No	No	Yes	
454	Dandy Bath	120.00	US 395	3	Undev.	12-20	5800	Yes	2.1	No	Marginal	1.5	1.5	No	Fair		No	No	No	No	No	No	No	No	
453	Polly Bath	160.00	US 395	3	Undev.	>20	<6500	No	2.6	No	No	1.1	1.1	No	Fair		No	No	No	No	No	No	No	No	
452	Sam Bath o	160.00	US 395	10	Undev.	12-20	<6500	No	1.0	No	Marginal	0.6	0.6	No	Fair		No	No	No	No	No	No	No	No	
196	Willie Smok	160.00	US 395	61	House	6-9	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	M	No	No	No	M	Yes	Yes	M	No	No	
174	Manny Bend	160.00	US 395	9	Undev.	>20	6500	Yes	1.8	No	No	1.3	1.3	Marginal	V. P.		No	No	No	No	No	No	No	No	
127	Sussie Jim	157.32	US 395	24	Undev.	12-20	>6500	Yes	2.8	No	Marginal	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	
692	Candu Tom	152.25	US 395	9	Undev.	6-9	<6500	Yes	3.3	Yes	Yes	>2.0	>2.0	No	Fair	V. Poor	No	No	No	Yes	No	No	No	M	
337	Jenny Moor	160.00	US 395	22	Undev.	12-20	<6500	Yes	2.8	Marginal	Marginal	2.0	2.0	No	Fair	V. Poor	No	No	No	M	No	No	No	No	
199	Molly Tom	160.00	US 395	59	Undev.	12-20	<6500	No	3.0	No	Marginal	1.1	1.1	No	Fair		No	No	No	No	No	No	No	No	
198	Tom Or Det	160.00	US 395	100	Undev.	12-20	<6500	No	0.9	No	Marginal	1.9	1.9	No	Fair		No	No	No	No	No	No	No	No	
197	Lillie Smoky	160.00	US 395	61	Undev.	9-12	<6500	No	0.3	No	Marginal	0.3	0.3	No	Fair		No	No	No	No	No	No	No	No	
186	Senah Pitch	145.47	US 395	7	House	6-9	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	No	M	Yes	Yes	M	No	No	
185	Lucy Pitchw	160.00	US 395	18	Undev.	9-12	<6500	Yes	0.4	Yes	Marginal	0.4	0.4	No	M	No	No	M	Yes	Yes	M	M	No	No	
184	Jim Pitchwo	160.00	US 395	15	Undev.	9-12	6500	Yes	1.3	Yes	Marginal	1.0	1.0	Marginal	V. P.	V. Poor	No	No	M	Yes	No	No	No	No	

**Table 2  
LAND USE ASSESSMENT MATRIX**

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS											HIGHEST & BEST USE								
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Topography		Accessibility		Developable (yes/no)	Public Services & Health & Safety			Cultural Res.	Natural Resources			Commercial Residential			Commercial Investment			Comm. Rec.	Other
						Slope (%)	Altitude	Existing Road	Miles from paved road		Sewage Treatment	Proximity to Power (miles)	Proximity to Communications (mi.)		Pinon Forest (quality pin nut resource)	Groundwater Potential	Soils Suitability for development*	Identified Mineral Resources	High Density (subdivision)	Medium Density	Low Density (rural)	Highway Retail	Neighborhood Services	Light Industrial	
272	Harriette Ch	120.00	US 395	134	Undev.	12-20	>6500	Yes	>3.0	No	Marginal	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	
271	Gilla Charle	160.00	US 395	1	Undev.	>20	>6500	Yes	>3.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
270	Sissie Char	160.00	US 395	77	Undev.	>20	>6500	Yes	>3.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
269	Washoe Ch	160.00	US 395	77	Undev.	>20	>6500	Yes	>4.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
336	Dah Hom D	153.55	US 395	26	Undev.	0-6	<6500	No	3.6	Marginal	Yes	>2.0	>2.0	No	Fair	No	No	No	Yes	No	No	No	M		
338	John Moore	160.00	US 395	1	Undev.	12-20	<6500	No	1.8	No	Marginal	1.6	1.6	No	Fair		No	No	No	No	No	No	No	No	Yes
339	Sanky Heirs	160.00	US 395	21	Undev.	12-20	<6500	No	1.3	No	Marginal	1.6	1.6	No	Fair		No	No	No	No	No	No	No	No	Yes
183	Ozen Hack	160.00	US 395	16	Undev.	0-6	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	M	Yes	Yes	Yes	Yes	No	No	
182	Ida Hack	160.00	US 395	1	Undev.	9-12	<6500	Yes	0.3	Yes	Marginal	0.3	0.3	No	Fair	V. Poor	No	No	M	Yes	No	M	No	No	
181	McCue Har	160.00	US 395	7	Undev.	9-12	<6500	Yes	1.1	Yes	Marginal	0.8	0.8	No	V. P.	No	No	M	Yes	No	No	No	No	No	
180	Mammie Ha	120.00	US 395	36	Undev.	12-20	6500	Yes	1.7	Yes	Marginal	1.2	1.2	Marginal	V. P.	No	No	M	Yes	No	No	No	No	No	
273	Washoe (Da	119.2119.2	US 395	129	Undev.	>20	>6500	Yes	2.9	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
280	Little Sam o	160.00	US 395	2	Undev.	>20	<5800	Yes	>4.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
255	Jack West	160.00	US 395	42	Undev.	>20	5800	No	>4.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
252	Pat Jonah	154.95	US 395	3	Undev.	>20	<6500	No	>3.5	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
231	Anson Dick	160.00	US 395	1	Undev.	9-12	<6500	No	2.6	No	Marginal	0.8	0.8	No	Fair		No	No	No	No	No	No	No	No	Yes
230	John Dick	160.00	US 395	134	Undev.	>20	<6500	No	2.2	No	No	1.5	1.5	No	Fair		No	No	No	No	No	No	No	No	Yes
229	Willie Dick	160.00	US 395	30	Undev.	12-20	<6500	No	1.7	Marginal	Marginal	0.2	0.2	No	Fair	No	No	No	M	No	No	No	No	No	
228	Lizzie Dick	160.00	US 395	30	Undev.	12-20	<6500	No	1.2	Marginal	Marginal	0.2	0.2	No	Fair	V. Poor	No	No	No	M	No	No	No	No	
227	Washoe (Ur	160.00	US 395	134	Undev.	12-20	<6500	No	0.7	Marginal	Marginal	0.2	0.2	No	Fair	V. Poor	No	No	No	M	No	No	No	No	
226	Sally John	160.00	US 395	80	Undev.	6-9	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	M	Yes	Yes	Yes	Yes	No	No	
175	Wa-Pe-Cu-t	160.00	US 395	31	Undev.	6-9	<6500	Yes	0.4	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	M	Yes	Yes	Yes	Yes	M	No	
176	Louisa Fillm	120.00	US 395	29	Undev.	12-20	<6500	No	1.3	Marginal	Marginal	0.6	0.6	No	Fair	No	No	No	M	No	No	No	No	No	
177	Totsie Fillm	160.00	US 395	31	Undev.	12-20	<6500	Yes	1.1	Yes	Marginal	1.0	1.0	No	M	No	No	No	M	No	No	No	No	No	
213	Henry Or Sc	160.00	US 395	18	Undev.	>20	6500	Yes	1.7	Marginal	No	1.4	1.4	Marginal	V. P.	No	No	No	M	No	No	No	No	No	
334	Dah-Bah-M	159.25	US 395	1	Undev.	>20	>6500	No	2.2	No	No	1.8	1.8	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
335	Nancy Doct	160.00	US 395	1	Undev.	>20	>6500	No	>2.5	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
680	Lillie Washc	160.00	US 395	15	Undev.	>20	>6500	Yes	>4.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
681	Nettie Wash	160.00	US 395	8	Undev.	>20	>6500	Yes	>6.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
256	Sarah West	160.00	US 395	45	Undev.	>20	<5800	Yes	>3.5	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
248	Jack Nye	120.00	US 395	8	Undev.	>20	<6500	Yes	3.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
239	Long Dick o	120.00	US 395	60	Undev.	>20	<6500	Yes	2.5	No	No	>2.0	>2.0	No	Fair		No	No	No	M	No	No	No	No	Yes
219	Jake Or Tuk	160.00	US 395	92	Undev.	>20	<6500	Yes	2.1	No	No	1.8	1.8	No	Fair		No	No	No	No	No	No	No	No	Yes
253	(LasSee) W	160.00	US 395	91	Undev.	6-9	<6500	Yes	1.6	Yes	Yes	1.3	1.3	No	Fair	No	No	M	M	Yes	No	M	No	No	
225	Jim John	120.00	US 395	126	House	0-6	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	Poor	No	Yes	Yes	Yes	Yes	Yes	M	M	
200	Charley (or	160.00	US 395	28	Undev.	6-9	<6500	Yes	0.4	Yes	Yes	0.3	0.3	No	Fair	No	No	M	Yes	No	No	No	M		
201	Bess Buel	160.00	US 395	5	Undev.	12-20	<6500	Yes	0.9	Marginal	Marginal	0.7	0.7	No	M	No	No	No	M	No	No	No	No	No	
214	Annie Henry	160.00	US 395	34	Undev.	12-20	6500	Yes	1.2	Marginal	Marginal	1.1	1.1	Marginal	V. P.	No	No	No	M	No	No	No	No	No	
293	Geo Washo	158.95	US 395	34	Undev.	>20	>6500	No	1.7	No	No	1.6	1.6	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
294	Minnie Was	160.00	US 395	34	Undev.	>20	>6500	No	2.2	No	No	1.8	1.8	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
295	Fred Washc	160.00	US 395	18	Undev.	>20	>6500	Yes	>3.0	No	No	>2.0	>2.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes

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LAND USE ASSESSMENT MATRIX**

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS											HIGHEST & BEST USE								
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Topography		Accessibility		Developable (yes/no)	Public Services & Health & Safety			Cultural Res.	Natural Resources			Commercial Residential			Commercial Investment			Comm. Rec.	Other
						Slope (%)	Altitude	Existing Road	Miles from paved road		Sewage Treatment	Proximity to Power (miles)	Proximity to Communications (mi.)		Pinon Forest (quality pin nut resource)	Groundwater Potential	Soils Suitability for development*	Identified Mineral Resources	High Density (subdivision)	Medium Density	Low Density (rural)	Highway Retail	Neighborhood Services		
279	Sis Bly	146.79	US 395	52	Undev.	>20	5800	Yes	>5.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
278	Jim Bly	160.00	US 395	54	Undev.	>20	5800	No	>5.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
251	Dick Jonah	155.89	US 395	37	Undev.	>20	5800	Yes	4.1	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
245	Bill Nye	160.00	US 395	45	Undev.	>20	<6500	No	>4.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
240	Sussie Dick	160.00	US 395	80	Undev.	12-20	<6500	Yes	3.1	No	Marginal	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
220	Lizzie Jake	160.00	US 395	92	Undev.	>20	<6500	Yes	2.7	No	No	0.4	0.4	No	Fair		No	No	No	No	No	No	No	No	Yes
254	Eliza Ben	160.00	US 395	91	Undev.	6-9	<6500	No	2.1	No	Yes	0.3	0.3	No	Fair		No	No	No	No	No	No	No	No	Yes
206	Jim Walker	160.00	US 395	31	Undev.	6-9	<6500	Yes	1.8	Yes	Yes	0.3	0.3	No	Fair	No	No	M	Yes	Yes	No	M	No	M	
296	Billy (Dah G	160.00	US 395	18	Undev.	0-6	<6500	No	1.0	Yes	Yes	0.7	0.7	No	Fair	No	No	M	Yes	Yes	No	M	No	M	
297	Lady Johns	120.00	US 395	54	Undev.	0-6	<6500	No	1.0	Yes	Yes	0.4	0.4	No	Fair	V. Poor	No	Yes	Yes	Yes	No	M	No	M	
205	Sussie Ming	160.00	US 395	9	Undev.	0-6	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	Yes	Yes	Yes	Yes	Yes	M	M	
202	Capt Jim or	160.00	US 395	83	Undev.	0-6	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	Yes	Yes	Yes	Yes	Yes	M	M	
203	Sussie (No.)	160.00	US 395	108	Undev.	>20	<6500	Yes	0.5	Yes	No	0.4	0.4	No	M	V. Poor	No	No	No	M	No	No	No	No	
215	Billie Miles	118.91	US 395	37	Undev.	>20	6500	No	1.5	No	No	1.2	1.2	Marginal	V. P.		No	No	No	No	No	No	No	No	Yes
216	Maggie Mile	160.00	US 395	6	Undev.	>20	>6500	No	2.2	No	No	1.4	1.4	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
217	Del Lush	160.00	US 395	141	Undev.	12-20	>6500	Yes	2.8	No	Marginal	1.8	1.8	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
250	Molly Jonah	160.00	US 395	63	Undev.	>20	<6500	No	>5.0	No	No	>2.0	>2.0	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
246	Maggie Nye	120.00	US 395	57	Undev.	>20	<6500	No	3.8	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
241	Aggie Dick	160.00	US 395	95	Undev.	9-12	<6500	Yes	3.3	Marginal	Marginal	>2.0	>2.0	No	Fair	V. Poor	No	No	No	M	No	No	No	M	
221	Sam Jake	160.00	US 395	19	Undev.	12-20	<6500	Yes	3.1	No	Marginal	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
266	Mah-Hut Ch	160.00	US 395	13	Undev.	12-20	6500	No	>2.5	No	Marginal	1.8	1.8	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
298	Billy Cornbr	160.00	US 395	35	Undev.	>20	6500	No	2.1	No	No	1.4	1.4	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
211	Epham or P	120.00	US 395	80	Undev.	>20	6500	No	1.7	No	No	0.9	0.9	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
207	Dow-Dorn-A	160.00	US 395	80	Undev.	9-12	<6500	No	0.6	Marginal	Marginal	0.5	0.5	No	Fair	V. Poor	No	No	M	Yes	No	No	No	No	
204	Ta Ga Ga N	160.00	US 395	9	Undev.	0-6	<6500	Yes	0.05	Yes	Yes	0.1	0.1	No	Fair	V. Poor	No	Yes	Yes	Yes	Yes	Yes	M	No	
257	Charley Sha	160.00	US 395	25	Undev.	9-12	<6500	Yes	0.05	Yes	Marginal	0.1	0.1	No	M	No	No	No	M	Yes	No	No	No	No	
258	Lizzie Shaw	120.00	US 395	25	Undev.	6-9	6500	Yes	2.0	No	Yes	0.5	0.5	Marginal	V. P.		No	No	No	No	No	No	No	No	Yes
285	Charley Nev	159.13	US 395	31	Undev.	>20	>6500	No	2.4	No	No	1.0	1.0	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
286	Annie Nevis	160.00	US 395	31	Undev.	>20	>6500	No	1.4	No	No	1.4	1.4	Yes	V. P.		No	No	No	No	No	No	No	No	Yes
222	Nancy Jake	160.00	US 395	35	Undev.	>20	<6500	No	3.7	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
267	Kitty Dressk	160.00	US 395	13	Undev.	6-9	>6500	No	>4.0	No	Yes	2.0	2.0	Yes	Fair		No	No	No	No	No	No	No	No	Yes
299	Mary Cornb	160.00	US 395	95	Undev.	6-9	>6500	No	3.5	No	Yes	1.6	1.6	Yes	Fair		No	No	No	No	No	No	No	No	Yes
291	Ben James	160.00	US 395	55	Undev.	12-20	>6500	No	2.0	No	Marginal	1.2	1.2	Yes	Fair		No	No	No	No	No	No	No	No	Yes
208	Sussie Holb	120.00	US 395	17	Undev.	>20	6500	No	1.5	No	No	0.8	0.8	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
260	Mamie Sha	160.00	US 395	13	Undev.	>20	6500	Yes	2.6	No	No	0.3	0.3	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
305	Ar-Bo-Jun A	157.43	US 395	26	Undev.	9-12	>6500	Yes	2.8	No	Marginal	0.7	0.7	Yes	Fair		No	No	No	No	No	No	No	No	Yes
306	Maggie Ged	160.00	US 395	37	Undev.	12-20	>6500	No	3.5	No	Marginal	1.3	1.3	Yes	Fair		No	No	No	No	No	No	No	No	Yes
243	John Dick	160.00	US 395	8	Undev.	9-12	<6500	Yes	>4.0	No	Marginal	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
223	Judy Jake	160.00	US 395	40	Undev.	>20	<6500	No	>4.0	No	No	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	No	Yes
268	Ordv Dressl	160.00	US 395	13	Undev.	6-9	>6500	No	>4.0	No	Yes	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	No	Yes
300	Ed. Cornbr	160.00	US 395	27	Undev.	9-12	>6500	No	3.5	No	Marginal	1.9	1.9	Yes	Fair		No	No	No	No	No	No	No	No	Yes

**Table 2  
LAND USE ASSESSMENT MATRIX**

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS											HIGHEST & BEST USE								
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Topography		Accessibility		Developable (yes/no)	Public Services & Health & Safety			Cultural Res.	Natural Resources			Commercial Residential			Commercial Investment			Comm. Rec.	Other
						Slope (%)	Altitude	Existing Road	Miles from paved road		Sewage Treatment	Proximity to Power (miles)	Proximity to Communications (mi.)		Pinon Forest (quality pin nut resource)	Groundwater Potential	Soils Suitability for development*	Identified Mineral Resources	High Density (subdivision)	Medium Density	Low Density (rural)	Highway Retail	Neighborhood Services		
292	Maggie Jan	160.00	US 395	47	Undev.	>20	>6500	No	2.2	No	No	1.6	1.6	Yes	Fair		No	No	No	No	No	No	No	No	Yes
209	Dick Doc-M	160.00	US 395	20	Undev.	>20	6500	No	1.5	No	No	1.2	1.2	Marginal	Fair		No	No	No	No	No	No	No	No	Yes
244	Jennie Dick	124.74	US 395	52	Undev.	12-20	<6500	Yes	>4.0	No	Marginal	>2.0	>2.0	No	Fair		No	No	No	No	No	No	No	Yes	
224	Liddie Jake	161.00	US 395	3	Undev.	>20	>6500	No	>4.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
281	George or Y	160.71	US 395	10	Undev.	12-20	>6500	No	>4.0	No	Marginal	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
301	McCarty Co	160.09	US 395	47	Undev.	>20	>6500	No	>4.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
474	Mah-Homa	159.60	US 395	2	Undev.	>20	>6500	No	>4.0	No	No	2.0	2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
210	Jane Dick	159.20	US 395	3	Undev.	>20	>6500	No	2.2	No	No	1.5	1.5	Yes	Fair		No	No	No	No	No	No	No	Yes	
283	Jackie Geor	116.33	US 395	10	Undev.	>20	>6500	No	>5.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
282	Geni Geor	160.00	US 395	7	Undev.	>20	>6500	No	>5.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
475	Ammie Geo	160.00	US 395	141	Undev.	12-20	>6500	No	>4.0	No	Marginal	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
687	Meddie Lute	160.00	US 395	48	Undev.	>20	>6500	No	>5.0	No	No	1.7	1.7	Yes	Fair		No	No	No	No	No	No	No	Yes	
284	Sam (Twent	156.12	US 395	160	Undev.	>20	>6500	No	>5.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
689	Neenie Lute	160.00	US 395	46	Undev.	>20	>6500	No	>5.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
688	Jack Lutent	160.00	US 395	49	Undev.	12-20	>6500	No	>4.0	No	Marginal	1.9	1.9	Yes	Fair		No	No	No	No	No	No	No	Yes	
736	Silver Mt. Ja	159.46	US 395	19	Undev.	>20	>6500	No	>5.0	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
728	Indian Nettie	160.00	US 395	20	Undev.	>20	>6500	No	>4.5	No	No	>2.0	>2.0	Yes	Fair		No	No	No	No	No	No	No	Yes	
724	Tom Walker	160.00	US 395	19	Undev.	>20	>6500	No	4.0	No	No	1.9	1.9	Yes	Fair		No	No	No	No	No	No	No	Yes	
735	Pete Dick	160.00	US 395	15	Undev.	6-9	>6500	No	3.3	No	Yes	1.7	1.7	Yes	V. P.		No	No	No	No	No	No	No	Yes	
708	Susie	160.00	Car. R.	102	Undev.	12-20	<6500	No	>2.0	No	Marginal	>2.0	>2.0	No	V. P.		No	No	No	No	No	No	No	Yes	
707	Joe Onang	160.00	Car. R.	144	Undev.	6-9	<6500	No	>2.0	No	Yes	>2.0	>2.0	No	V. P.		No	No	No	No	No	No	No	Yes	
<b>Total Ac.</b>		22987.91	US 395 Allotments																						
* Soils analysis was performed only on allotments determined to be developable																									
Partitioned Allotments																									
10 Allotments			North																						
16 Allotments			NE				Good Suitability				58	9028.28	Acres	Developable											
150 Allotments			US 395				Fair				7	1108.80	Acres	Developable											
176 Total Allotments							Poor				15	2313.55	Acres	Marginal											
							Very Poor				0	0.00	Acres												
							Not Developable				96	14679.28	Acres	Not Developable											
<b>Total Ac.</b>		<b>27129.91</b>																							
										176		<b>27129.91</b>	Ac. Total												

# APPENDIX A

## Soil Suitability Analysis

## **APPENDIX A**

### **Soil Suitability Analysis**

The BIA and the USDA Natural Resources Conservation Service (NRCS) recently completed a Rangeland Resource Inventory for the Pine Nut Allotments that included a soils study. This study (*Pine Nut Allotments Rangeland Resource Inventory, Final Report, December 2007*) rated the suitability of the various soil types to support differing uses. Numerous categories were evaluated in the resource inventory. However, for purposes of this soil suitability analysis, only those use categories identified as applicable to supporting development were evaluated. These were:

- **Building Site Development Suitability**
  - Corrosion of Concrete
  - Lawns & Landscaping
  - Golf Fairways
  - Local Roads & Streets
  - Shallow Excavations
  - Dwellings & Small Commercial Buildings
- **Construction Materials**
  - Sources of Gravel
  - Sources of Roadfill
  - Source of Sand
  - Source of Reclamation Material
  - Source of Topsoil
- **Land Management**
  - Off Trail & Road Erosion Hazard
  - On Trail & Road Erosion Hazard
  - Suitability for Roads (natural surface)
- **Recreational Development**
  - Camp Areas, Picnic Areas, & Playgrounds
  - Paths, Trails, & Motorcycle Trails
- **Sanitary Facilities**
  - Suitability for Septic Tank Absorption Fields
  - Suitability for Sewage Lagoons

### **Methodology**

Utilizing the NRCS report, those 80 allotments previously determined to be suitable for development were evaluated as to soil suitability to support development. The 80 allotments included 10 allotments in the Northern group, 16 allotments in the Northeast group, and 54 allotments along the Highway 395 corridor.

With the exception of a small number of allotments, most are composed of two or more soil types. The approximate percentages of various soil types were estimated for each allotment. Table A-1, at the end of this appendix, shows the allotments, the percentage of soil type, and the

suitability ratings. For those with multiple soils, an overall suitability was estimated based on the percentages. See Figure A-1 for overall soils suitability for the 80 developable allotments.

For residential, commercial, and light industrial development, six critical suitability factors were evaluated. These included:

- Local Roads and Streets
- Shallow Excavations
- Dwellings and Small Commercial Buildings
- Source of Roadfill
- Septic Tank Absorption Fields
- Sewage Lagoons

These factors are very critical as they have a direct correlation to the cost of development. As the soil suitability decreases, costs for development increase. For example, shallow soil depth requires rock excavation for building foundations and for construction roads, and poor soils for sewage absorption fields means some type of community system, and if soils are not suitable for lagoons, some type of treatment process would be required, all of which add considerable cost to development projects, which in turn directly affect a developer's ability to compete in the market place.

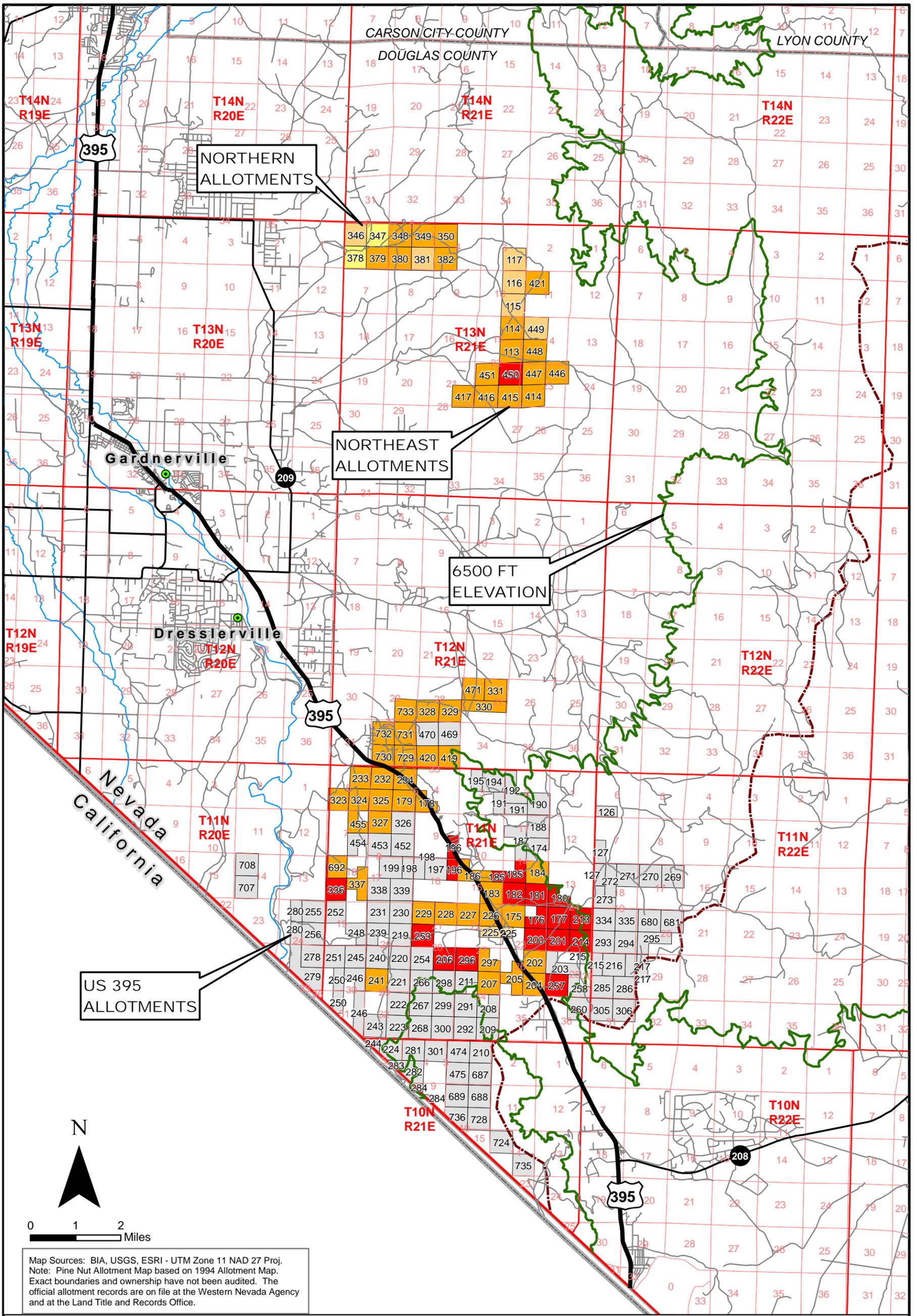
Based on these factors, an overall soils suitability rating was applied to each of the 80 allotments (those previously determined to be developable) to determine the capability of the soils to support development. Rating categories included good, fair, poor, very poor, and unsuitable. Good and fair ratings afford development opportunities. A poor rating is marginal, although some mitigation may be possible. Allotments with very poor and unsuitable ratings would require very expensive mitigation and are unlikely to be considered by a developer.

## **Findings**

Overall, soil suitability for construction of buildings and for subsurface sewage disposal or construction of sewage lagoons is not very good. Not one allotment had an overall rating of "good" for either category of sewage disposal. These suitability categories are primary concerns to a developer in rural areas as poor soils increases construction costs, particularly when rock excavation is required and when sewage treatment plants are necessary.

### North Allotments

Overall building suitability in the North Allotments ranges from fair to very poor with 2 allotments rated fair, 2 rated poor, and 6 rated very poor. In general, soils suitability for shallow excavations and for construction of dwellings or commercial structures is not particularly good. Only a few soil types have good or fair suitability ratings. Also, ratings for community sewage lagoons are very poor in this area. However, a number of soils have fair suitability ratings for septic tank drainfields. As a result, large lot development, similar to that which has occurred to the west of these allotments, with individual septic tanks with drainfields



**Legend**

- 6500 Ft. El.
- Local Road
- Carson River Watershed Boundary
- 50 Meter Contours
- Soil Suitability: Fair
- Soil Suitability: Poor
- Soil Suitability: Very Poor
- Soil Suitability: Not Suitable
- Soil Suitability: Not Considered Developable

Figure A-1

# Soils Suitability For Development

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

may be possible in some areas. Otherwise, community wastewater treatment facilities probably will be necessary and will increase the cost of development.

Soils suitability for constructing roads and for road fill are better although individual soil types run the gamut from good to unsuitable. In particular, road fill suitability is considerably better with a number of soils having a “good” rating.

### Northeast Allotments

Overall building suitability in the Northeast Allotments ranges from fair to not suitable with 4 allotments rated poor, 11 rated very poor, and one rated not suitable. Soil problems in this area are similar to the North Allotments—very poor suitability for shallow excavations and for dwellings and small commercial structures. Likewise, there are some soil types where septic tank drainfields will probably be possible, but community lagoon systems will be unlikely unless suitable soils are imported.

Soils suitability for constructing roads and for road fill is similar to the North Allotments and runs the gamut from good to unsuitable. In particular, road fill suitability is better with a number of soils having a “good” or “fair” rating.

### Highway 395 Corridor Allotments

Because of the steeper terrain, soil conditions in this area are even less desirable for development. Of the 54 allotments that have development potential, almost all are rated either very poor or not suitable. One has a poor rating, 37 are rated very poor, and 16 are not suitable for development. One of the biggest development cost factors will be sewage treatment systems in this area as almost uniformly the soils are not suitable for either septic tank drainfields or for community lagoon systems. As was the case with the Pine View development, wastewater treatment plants most likely will be required. Also, soil suitability for shallow excavation and for dwellings and small scale commercial developments is not very good and will be a problem in areas where slopes increase.

Soils suitability for roads and roadfill are not as good as in the northern allotment areas. Most soils have a “very poor” rating for road construction although there a few with “fair” and “poor” ratings. Ratings for roadfill are better with a number of soil types that have “good” or “fair” ratings. Overall, however, the vast majority of soils have a “poor” rating. Road construction will definitely be more difficult in this area and will increase development costs.

## **Conclusions**

Soils in the North and Northeast Allotment areas are a little more conducive to development than the Highway 395 Allotments. The North and Northeast Allotments, being in the valley area, generally do not have the slope and erosion problems that are prevalent in the mountainous Highway 395 Corridor, and therefore have more soil depth and less bedrock problems. Also, in these two areas, large lot development on individual septic tanks with drainfields may be possible in some areas.

Even though the soils are not the best for development, it should be noted that development has occurred in some marginally suitable areas. The soil suitability on the allotment where the Pine View Estates are located was not particularly suitable, as seen by the need for a wastewater treatment facility, which significantly increased the cost of development. Also east of the North Allotments, rural residential development has occurred, although at a very low density, in similar soil situations.

Soil problems can be overcome, but it adds to the cost of development and impacts the overall feasibility of a proposed development. Ultimately, local market conditions determine whether the costs of development are warranted to maintain competitiveness in the market place.

Table A-1  
SOILS SUITABILITY MATRIX

ALLOTMENT DATA							PHYSICAL CHARACTERISTICS																						
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Soil Number	Percentage of Allotment	Soil Suitability Category																					
								Building Site Development					Construction Materials					Land Management			Recreational Development		Sanitary Facilities		Development with Wastewater Treatment System		Development with Septic Tank Drainfield		Development with Community Wastewater Lagoons
								Corrosion of Concrete	Lawns & Landscaping	Golf Fairways	Local Roads & Streets	Shallow Excavations	Dwellings and Small Commercial Buildings	Source of Gravel	Source of Roadfill	Source of Sand	Source of Reclamation Material	Source of Topsoil	Off Trail & Road Erosion Hazard	On Trail & Road Erosion Hazard	Suitability For Roads (Natural Surface)	Camp Areas & Picnic Areas	Paths, Trails, & Motorcycle Trails	Septic Tank Absorption Fields	Sewage Lagoons	Development with Wastewater Treatment System	Development with Septic Tank Drainfield	Development with Community Wastewater Lagoons	Overall Soil Suitability Rating for Allotment for Development
346	Deve Mo Sh	148.80	North	10	Undev.	891	90	Good	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Good	Fair	Fair	V. Poor	No	V. Poor	No	Poor	Poor	V. Poor	Poor
347	Mary Dick	161.30	North	10	Undev.	392	15	Good	Fair	Good	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Fair	Fair	Fair	Fair	V. Poor	
						393	15	Good	Good	Fair	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Poor	Fair	Fair	Fair	Fair	Fair	V. Poor	
						483	10	Good	V. Poor	V. Poor	No	No	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Poor	Poor	Poor	No	V. Poor			
						982	35	Good	Good	Good	Fair	Fair	V. Poor	Poor	Fair	Poor	Fair	Good	Good	Good	Fair	V. Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair
						Ave. Soil Suitability Rating for Category																							
348	Wallace Dic	161.45	North	10	Undev.	393	10	Good	Good	Fair	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Fair	Fair	Fair	Fair	V. Poor	
						483	85	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Fair	Fair	Poor	Poor	Poor	No	V. Poor			
						Ave. Soil Suitability Rating For Category																							
349	Walking Dic	160.93	North	10	Undev.	181	20	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	No	No				
						183	50	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Fair	V. Poor	Fair	No	V. Poor			
						483	15	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Fair	Good	Poor	Poor	No	V. Poor				
						781	15	Good	Fair	Fair	V. Poor	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Good	V. Poor	Good	No	V. Poor			
						Ave. Soil Suitability Rating For Category																							
350	Joe Dick	160.72	North	10	Undev.	685	95	Good	V. Poor	V. Poor	V. Poor	Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	No	No	V. Poor	V. Poor	V. Poor	V. Poor
378	LittleCharley	148.80	North	24	Undev.	181	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No				
						392	10	Good	Fair	Good	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Fair	Fair	V. Poor			
						611	15	Good	Good	Good	Fair	No	Good	Poor	Good	Fair	Fair	Fair	Good	Good	Good	Fair	Good	No	No				
						612	15	Good	Good	Good	Fair	No	Good	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair	Good	No	V. Poor			
						832	20	Good	Fair	Fair	Fair	No	V. Poor	Poor	Good	Fair	Poor	Poor	Good	Fair	Fair	Fair	No	No	V. Poor				
						982	10	Good	Good	Good	Fair	Fair	V. Poor	Poor	Fair	Poor	Fair	Good	Good	Good	Fair	V. Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair
						Ave. Soil Suitability Rating For Category																							
379	Susie Charl	160.00	North	24	Undev.	392	25	Good	Fair	Good	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	Poor
						481	15	Good	No	No	No	No	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Poor	Good	No	No				
						483	50	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Poor	Poor	No	V. Poor				
						Ave. Soil Suitability Rating For Category																							
380	Wm Dave Tl	160.00	North	24	Undev.	483	30	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Fair	Fair	Poor	No	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor
381	Saddle Tond	160.00	North	24	Undev.	181	65	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No				
						392	15	Good	Fair	Good	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Fair	V. Poor				
						481	15	Good	No	No	No	No	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Good	Fair	Poor	Good	No	No			
						Ave. Soil Suitability Rating For Category																							
382	Willie Tond	160.00	North	15	Undev.	181	20	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Fair	Poor	V. Poor	Fair	Fair	No	Poor	Poor	No	Poor
						392	20	Good	Fair	Good	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Poor	Fair	Fair	V. Poor				
						393	10	Good	Good	Fair	Fair	No	No	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Poor	Fair	Fair	Fair	V. Poor			
						481	30	Good	No	No	No	No	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Poor	Good	No	No				
						483	30	Good	V. Poor	V. Poor	No	V. Poor	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Fair	Fair	Poor	Fair	Poor	No	V. Poor			
						Ave. Soil Suitability Rating for Category																							
117	Sussie Jim	160.00	NE	13	Undev.	833	100	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Fair	Poor	Fair	Good	Fair	Fair	V. Poor	Poor	Fair	V. Poor	Poor	Poor	V. Poor	Poor
116	Louis Jim of	160.00	NE	27	Undev.	181	40	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No	V. Poor			
						382	20	Fair	Poor	Poor	Poor	No	Fair	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	V. Poor	Fair	Good	No	V. Poor			
						833	40	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Fair	Poor	Fair	Good	Fair	Fair	V. Poor	Poor	Fair	V. Poor				
						Ave. Soil Suitability Rating for Category																							
421	Daw Lab-Lu	160.00	NE	15	Undev.	833	95	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Fair	Poor	Fair	Good	Fair	Fair	V. Poor	Poor	Fair	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor
115	John Charle	160.00	NE	27	Undev.	181	40	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No				
						382	60	Fair	Fair	Fair	Poor	No	Fair	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Fair	Good	No	V. Poor				
						Ave. Soil Suitability Rating for Category																							
114	Maggie Jim	160.00	NE	27	Undev.	181	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Poor	Poor	Fair	Fair	No	Poor	Poor	V. Poor	Poor
						382	85	Fair	Fair	Fair	Poor	No	Fair	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Fair	Good	No	V. Poor				
						Ave. Soil Suitability Rating for Category																							
449	Sussie Jim	160.00	NE	38	Undev.	181	80	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No				
						382	20	Fair	Fair	Fair	Poor	No	Fair	Poor	Good	Fair	Fair	Fair	Good	Fair	Fair	Fair	Good	No	V. Poor				
						Ave. Soil Suitability Rating for Category																							
113	Jim Iaciah	160.00	NE	27	Undev.	685	95	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	V. Poor	No	V. Poor	V. Poor	No	V. Poor
448	Old Jim or A	160.00	NE	38	Undev.	181	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No				
						685	85	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	V. Poor	No				
						Ave. Soil Suitability Rating for Category																							
451	Mogan Davi	160.00	NE	14	Undev.	181	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Fair	Fair	No	V. Poor	V. Poor	No	V. Poor
						481	15	Good	No	No	No	No	V. Poor	Fair	Poor	Fair	Poor	Poor	Good	Good	Fair	Poor	Good	No	No				



Table A-1  
SOILS SUITABILITY MATRIX

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS																										
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Predominant Soil Types		Soil Suitability Category																								
						Soil Number	Percentage of Allotment	Building Site Development					Construction Materials					Land Management			Recreational Development		Sanitary Facilities									
								Corrosion of Concrete	Lawns & Landscaping	Golf Fairways	Local Roads & Streets	Shallow Excavations	Dwellings and Small Commercial Buildings	Source of Gravel	Source of Roadfill	Source of Sand	Source of Reclamation Material	Source of Topsoil	Off Trail & Road Erosion Hazard	On Trail & Road Erosion Hazard	Suitability For Roads (Natural Surface)	Camp Areas & Picnic Areas	Paths, Trails, & Motorcycle Trails	Septic Tank Absorption Fields	Sewage Lagoons	Development with Wastewater Treatment System	Development with Septic Tank Drainfield	Development with Community Wastewater Lagoons	Overall Soil Suitability Rating for Allotment for Development			
324	Geo Washri	160.00	US 395	8	homes	251	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Fair	No	Poor	V. Poor	V. Poor	No	V. Poor							
Ave. Soil Suitability Rating for Category						486	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Fair	Poor	Poor	Good	Poor	Poor	V. Poor	Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
325	Daisy Wash	160.00	US 395	6	Undev.	251	85	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Poor	Poor	V. Poor	V. Poor	V. Poor	No	V. Poor						
Ave. Soil Suitability Rating for Category						486	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Poor	Fair	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor	
179	Sally Jim	160.00	US 395	79	Undev.	251	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
178	Jim Or Col-	120.00	US 395	63	Undev.	251	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
455	Birdy Bath	120.00	US 395	10	Undev.	251	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						486	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Poor	Poor	V. Poor	Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
327	Nannie Bill	160.00	US 395	7	Undev.	251	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
196	Willie Smok	160.00	US 395	61	House	251	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	No	No	No	No	No		
692	Candu Tom	152.25	US 395	9	Undev.	486	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
337	Jenny Moor	160.00	US 395	22	Undev.	251	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						270	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
186	Senah Pitch	145.47	US 395	7	House	251	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	Fair	Poor	Good	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						255	34	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	Fair	Poor	Good	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
185	Lucy Pitchw	160.00	US 395	18	Undev.	151	70	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						255	30	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
184	Jim Pitchw	160.00	US 395	15	Undev.	151	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						255	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
336	Dah Hom D	153.55	US 395	26	Undev.	151	70	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						486	25	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	Poor	Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
183	Ozen Hack	160.00	US 395	16	Undev.	151	20	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	Fair	No	Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						483	25	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	Fair	Fair	Poor	Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						871	15	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	Fair	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor	
Ave. Soil Suitability Rating for Category						884	15	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Good	Fair	Good	Fair	Good	Fair	Fair	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor
182	Ida Hack	160.00	US 395	1	Undev.	151	95	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No		
181	McCue Har	160.00	US 395	7	Undev.	151	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No		
Ave. Soil Suitability Rating for Category						255	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	No	V. Poor	V. Poor	No	No	No	No	No	No	No		
180	Mammie Ha	120.00	US 395	36	Undev.	151	30	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						255	70	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	No	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
229	Willie Dick	160.00	US 395	30	Undev.	251	95	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
228	Lizzie Dick	160.00	US 395	30	Undev.	251	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						993	10	Good	Fair	Fair	V. Poor	V. Poor	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
227	Washoe (Ur	160.00	US 395	134	Undev.	251	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
226	Sally John	160.00	US 395	80	Undev.	251	50	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	V. Poor	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						884	40	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Good	Fair	Good	Fair	Good	Fair	Fair	No	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	
175	Wa-Pe-Cu-E	160.00	US 395	31	Undev.	151	60	Good	No	No	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	V. Poor	V. Poor	V. Poor		
Ave. Soil Suitability Rating for Category						884	40	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Good	Fair	Good	Fair	Good	Fair	Fair	No	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	
176	Louisa Fillm	120.00	US 395	29	Undev.	151	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No		
177	Totsie Fillm	160.00	US 395	31	Undev.	151	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No		

Table A-1  
SOILS SUITABILITY MATRIX

ALLOTMENT DATA						PHYSICAL CHARACTERISTICS																										
						Predominant Soil Types		Soil Suitability Category																								
								Building Site Development						Construction Materials						Land Management				Recreational Development		Sanitary Facilities						
Allotment No.	Allotment Name	Size (acres)	Location	No. of Owners	Current Land Use	Soil Number	Percentage of Allotment	Corrosion of Concrete	Lawns & Landscaping	Golf Fairways	Local Roads & Streets	Shallow Excavations	Dwellings and Small Commercial Buildings	Source of Gravel	Source of Roadfill	Source of Sand	Source of Reclamation Material	Source of Topsoil	Off Trail & Road Erosion Hazard	On Trail & Road Erosion Hazard	Suitability For Roads (Natural Surface)	Camp Areas & Picnic Areas	Paths, Trails, & Motorcycle Trails	Septic Tank Absorption Fields	Seepage Lagoons	Development with Wastewater Treatment System	Development with Septic Tank Drainfield	Development with Community Wastewater Lagoons	Overall Soil Suitability Rating for Allotment for Development			
213	Henry Or Sd	160.00	US 395	18	Undev.	151	30	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	V. Poor	No	No							
						255	70	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No	No	
253	(LasSee) W	160.00	US 395	91	Undev.	153	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Fair	V. Poor	V. Poor	V. Poor	No	No							
						251	40	Good	No	No	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						993	45	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	V. Poor	Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Poor	No	No	V. Poor	No	No	No	No	
225	Jim John	120.00	US 395	126	House	251	20	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	V. Poor							
						884	75	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	Fair	Fair	No	Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	Poor	No	Poor	Poor	Fair	Poor	Fair	Poor	Poor	Fair	Poor	Fair	Poor	Poor	No	Poor	Poor	V. Poor	Poor	Poor	Poor	
200	Charley (or	160.00	US 395	28	Undev.	151	100	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
201	Bess Buel	160.00	US 395	5	Undev.	151	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						252	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	No	No							
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No	No	No	No	No	No	No	
214	Annie Henry	160.00	US 395	94	Undev.	151	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						152	10	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor						
						255	70	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	No	V. Poor	V. Poor	No	No						
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No	V. Poor	No	No	No	No	
206	Jim Walker	160.00	US 395	31	Undev.	251	80	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						993	20	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	V. Poor	Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Poor	No	No	V. Poor	No	No	No	No	
296	Billy (Dah G)	160.00	US 395	18	Undev.	251	85	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	V. Poor							
						993	15	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	No	No						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	V. Poor	Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Poor	V. Poor	V. Poor	Poor	No	V. Poor	No	No	No	No	No	
297	Lady Johnsd	120.00	US 395	54	Undev.	251	40	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	V. Poor							
						993	55	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	V. Poor	Poor	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Fair	V. Poor	V. Poor	Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	
205	Sussie Ming	160.00	US 395	9	Undev.	252	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						884	25	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	Fair	Fair	No	Poor						
						871	45	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor						
						993	15	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Poor	Poor	Poor	Poor	Good	Good	Good	Poor	Poor	V. Poor	V. Poor	Poor	V. Poor	V. Poor	V. Poor	
202	Capt Jim or	160.00	US 395	83	Undev.	151	50	Good	V. Poor	V. Poor	No	No	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						871	50	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	Poor	No	V. Poor	Fair	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Fair	V. Poor	Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	
203	Sussie (No.)	160.00	US 395	108	Undev.	252	60	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						871	25	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor						
						151	15	Good	V. Poor	V. Poor	No	No	No	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	Poor	No	V. Poor	Fair	Fair	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Poor	V. Poor	Poor	No	No	V. Poor	No	No	V. Poor	
241	Aggie Dick	160.00	US 395	95	Undev.	280	95	Good	No	No	V. Poor	V. Poor	V. Poor	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Fair	Poor	V. Poor	No	No	V. Poor	V. Poor					
207	Dow-Dom-A	160.00	US 395	90	Undev.	251	85	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No							
						884	15	Good	Fair	Fair	Fair	No	Fair	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	Fair	Fair	No	Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor	Poor	Poor	Poor	No	No	V. Poor	V. Poor	V. Poor	V. Poor	
204	Ta Ga Ga N	160.00	US 395	9	Undev.	252	15	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	V. Poor	No	No						
						871	60	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor						
						993	15	Good	Fair	Fair	V. Poor	Fair	V. Poor	Poor	Fair	Poor	Poor	Poor	Poor	Good	Good	V. Poor	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	Poor	Poor	Poor	V. Poor	V. Poor	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Fair	Fair	V. Poor	Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	
257	Charley Shd	160.00	US 395	25	Undev.	252	90	Good	V. Poor	V. Poor	V. Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor	V. Poor	V. Poor	No	No							
						871	10	Good	V. Poor	V. Poor	Fair	No	V. Poor	Poor	Good	Poor	Fair	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor						
						Ave. Soil Suitability Rating for Category		Good	V. Poor	V. Poor	Poor	V. Poor	V. Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Good	Fair	Good	V. Poor	Fair	V. Poor	V. Poor	V. Poor	No	No	No	No

Partitioned Allotment  
 10 Allotments North  
 16 Allotments NE  
 54 Allotments US 395  
 80 Total Developable Allotments

# APPENDIX B

## Allotment Ownership

## Appendix B Allotment Ownership

### Allotment Owners Summary

The number of owners of individual allotments is a variable that affects the attractiveness of an allotment to a land developer. The fewer owners, the more chance that consensus can be reached and in a shorter time frame. The more owners, the less chance that even a majority can be reached, and if one can be reached it may take considerable effort and time, all of which increases the cost to a developer. This problem was pointed out during the first set of public meetings where a number of allotment owners remarked that with multiple ownerships, reaching agreement on anything was very difficult and impossible in many cases. It should be noted that the only existing development (Pine View Estates) occurred on an allotment with only one owner. Ownership numbers are displayed in Table 2 (Land Use Assessment Matrix) in the main body of this Land Use Suitability Analysis Working Paper..

Based on ownership data provided by BIA Realty, an analysis produced the following findings:

- Only 24 (14%) of the allotments have 5 or less owners (one is already developed)
- Only 62 (35%) of the allotments have 15 or less owners
- The remaining 114 allotments (65%) have more than 15 owners
- Fifteen allotments have 100 or more owners with 160 being the highest ownership number
- Nine allotments have been partitioned into smaller units

<b>Table B-1 Pine Nut Allotments Ownership Summary</b>					
<b>Area</b>	<b>Number of Owners</b>				
	<b>0-5</b>	<b>6-15</b>	<b>16-30</b>	<b>31-50</b>	<b>More than 50</b>
Northern Allotments	0	6	4	0	0
Northeast Allotments	5	3	6	2	0
Hwy 395 Allotments	19	29	25	31	46
<b>Total All Areas</b>	<b>24</b>	<b>38</b>	<b>35</b>	<b>33</b>	<b>46</b>
<b>% of Total</b>	<b>14%</b>	<b>22%</b>	<b>20%</b>	<b>19%</b>	<b>26%</b>

Those allotments with five or fewer owners will be the most attractive to developers. Those with 15 owners or less will be only marginally attractive, and those allotments with more 15 will likely not be attractive at all. The multiple ownership issue can be mitigated to a great degree if the allotment owners were to agree to establish a legal entity, such as a development corporation, with a small board of directors that is empowered to make binding decisions. Setting up such an entity, however, also requires agreement by a majority of owners.

The development suitability analysis showed that 80 of the total 176 allotments had development potential. When looking at just those 80 allotments, the ownership findings are as follows:

- Only 11 (14%) of the allotments have 5 or less owners (one is already developed)
- Only 33 (41%) of the allotments have 15 or less owners
- The remaining 47 allotments (59%) have more than 15 owners
- Eight have been partitioned into smaller parcels

As a result, less than half of these 80 allotments (see Figure B-1) would be of interest to a developer unless the multiple ownership issue can be mitigated.

<b>Table B-2 Ownership Summary for Developable Allotments</b>					
<b>Area</b>	<b>Number of Owners</b>				
	<b>0-5</b>	<b>6-15</b>	<b>16-30</b>	<b>31-50</b>	<b>More than 50</b>
Northern Allotments	0	6	4	0	0
Northeast Allotments	5	3	6	2	0
Hwy 395 Allotments	6	13	13	9	13
<b>Total All Areas</b>	<b>11</b>	<b>22</b>	<b>23</b>	<b>11</b>	<b>13</b>
<b>% of Total</b>	<b>14%</b>	<b>28%</b>	<b>29%</b>	<b>14%</b>	<b>16%</b>

Of the 8 partitioned allotments, all of the partitions have less than 5 owners and most have either 1 or 2 owners. This will be a more attractive situation to developers, although in some cases the number of partitions greatly reduces the size of the parcel.

<b>Table B-3 Partitioned Allotments</b>			
<b>Allotment No.</b>	<b>Size in Acres</b>	<b>No. of Partitioned Units</b>	<b>Total Owners All Units</b>
183	160.00	16	16
186	145.47	3	7
234	98.10	2	2
469	160.00	11	11
729	162.50	10	26
730	160.00	11	14
731	160.00	12	24
732	160.00	2	4

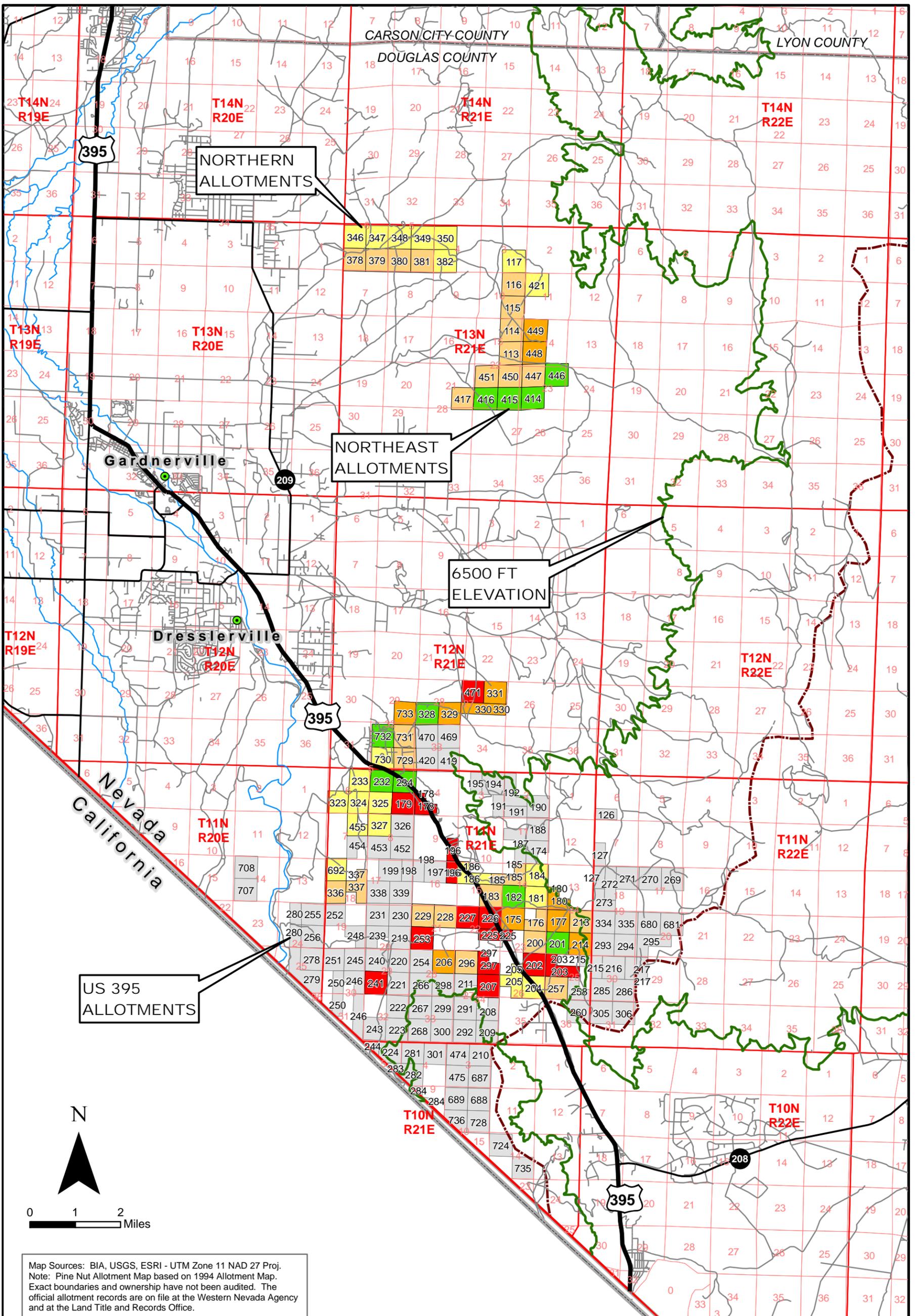


Figure B-1

# Numbers of Owners Per Developable Allotments

Pine Nut Allotments, Douglas County, Nevada

Map Prepared by Cascade Design Professionals, Inc., Jan. 2009

