CALIFORNIA AGRICULTURAL LAND EVALUATION AND SITE ASSESSMENT

We Are Up Planned Development Project

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EXECUTIVE SUMMARY

The purpose of this analysis is to evaluate the agricultural value of the project site for the proposed We Are Up Planned Development (Project). This analysis was conducted using the California Agricultural Land Evaluation and Site Assessment Model (LESA) developed by the California Department of Conservation in 1997.

The proposed Project is located within southern Humboldt County. The Project site comprises approximately 17.38 acres on Central Avenue, of McKinleyville. The surrounding uses are primarily mixed residential and commercial. No portion of the Project site is subject to the Williamson Act.

The proposed Project seeks to build a mixed commercial and residential development.

Land Evaluation and Site Assessment (LESA) is a term used to define an approach for rating the relative quality of land resources based upon specific measurable features. The LESA model is composed of six different factors. Two Land Evaluation factors are based upon measures of soil resource quality. Four Site Assessment factors provide measures of a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands.

Weighting of Factors and Final LESA Model Scoring

The LESA model is weighted so that 50 percent of the total LESA score of a given project is derived from the Land Evaluation factors and 50 percent from the Site Assessment factors. Each factor's score is multiplied by its respective factor weight to determine a weighted factor score. The weighted factor scores are then summed to yield a Total LESA Score for the Project.

The Final LESA score for Project is 41.46, the Land Evaluation subscore is 36.96 and the Site Assessment Subscore is 4.5 (Table 10). According to the California Agricultural LESA Model Threshold for Significance (Table 9), a total score of 41.46 indicates that a conversion of agricultural land to non- agricultural use resulting from the Project is considered significant "only if Land Evaluation and Site Assessment subscores are each greater than or equal to 20 points". Since the Site Assessment subscore is less than 20 for the Project site, pursuant to the LESA model, the proposed conversion of the site would not be considered significant. Furthermore, the majority of the Project, approximately 13 acres will remain vacant to allow for low-impact agricultural and recreational use consistent with an urban/suburban setting.

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1 INTRODUCTION

1.1. Purpose and Need

The purpose of this analysis is to evaluate the agricultural value of the project site for the proposed we are up planned development. This analysis was conducted using the California Agricultural Land Evaluation and Site Assessment model (LESA) developed by the California Department of Conservation in 1997.

Appendix G of the 2000 21 California Environmental Quality Act (CEQA) Statutes and Guidelines includes the provision that, “in determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.” The LESA model is useful because it utilizes several factors to determine the relative value of agricultural land.

The formulation of a LESA model is the result of Senate Bill 850 (Chapter 812/1993), which charges the Resource Agency, in consultation with the Governor’s Office of Planning and Research, with developing an amendment to Appendix G of the California Environmental Quality Act Guidelines concerning agricultural lands. Such an amendment is intended “to provide lead agencies with an optional method to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process”(Public Resources Code Section 21095).

1.2. Project Summary

The proposed Project is located within McKinleyville in central Humboldt County. The Project site comprises approximately 17.38 acres on Central Avenue, of McKinleyville. Land uses in the vicinity of the Project site are primarily mixed residential and commercial uses. No portion of the Project site is subject to the Williamson Act.

The proposed Project seeks to build a mixed commercial and residential development. The majority of the Project site, approximately 13 acres will remain vacant to allow for low impact recreational and agricultural use consistent with the surrounding urban/suburban land uses.

2. CALIFORNIA LESA MODEL

Land Valuation And Site Assessment (LESA) is a term used to define an approach for rating the relative quality of land resources based on specific measurable features. The California LESA model is composed of six different factors. Two land evaluation factors are based on measures of soil resource quality, and four site assessment factors provide measures of a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands.

For a given project, each of these factors is separately rated on a 100-point scale. The factors are then weighted relative to one another and combined, resulting in a single numeric score for a given project, with a maximum attainable score of 100 points. It is this project score that becomes the basis for making a determination of a project's potential significance based on a range of established scoring thresholds.

2.1. Land Evaluation Factors

The California LESA Model includes two Land Evaluation factors that are separately rated:

1. The Land Capability Classification (LCC) rating
2. The Storie Index rating

Information needed to make these ratings is typically available from soil surveys that have been conducted by the federal Natural Resource Conservation Service (NRCS). The data used here was obtained from the NRCS Web Soil Survey in December, 2024. According to that website the Project site contains two soil types. (Figure 2, Table 1).

Table 1: Soil Types on the We Are Up Project Site

Soil Map Unit	Name	Slope	Percent/Acres of Project Site
171	Worswick-Arlynda complex	0 to 2%	10.7% (1.86 acres)
226	Arcata and Candymountain soils	2% to 9%	89.3% (15.52 acres)

Source: USDA NRCS Web Soil Survey, 2024

2.1.1. Land Capability Classification (LCC) Rating

The LCC indicates the suitability of soils for most kinds of crops. Groupings are made according to the limitations of the soil when used to grow crops and the risk of damage to soils when they are used in agriculture. Soils are rated from Class I - soils having the fewest limitations, to Class VIII - soils having the most limitations that preclude their use for commercial plant production. Specific subclasses further characterize the soils. LESA LCC point ratings are summarized in Table 2. Detailed information describing the soils can be found at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. LCC ratings for each soil type at the project site are summarized in Table 3. LCC scores are obtained by multiplying the aerial proportion of each soil type by the weighted LCC rating.

Table 2. Land Capability Classification Rating Summary

LCC	LCC Point Rating
1	100
2e	90
2s, w	80
3e	70
3s,w	60
4e	50
4s,w	40
5	30
6	20
7	10
8	0

Table 3. Land Capability Classification Score for the We Are Up Project Site

Map unit symbol and name	Pct. of map unit	Component name	Land Capability Subclass		LCC Rating	Weighted LCC Rating	LCC Score
			Nonirrigated	Irrigated			
171—Worswick-Arlynda complex 0 to 2 percent slopes (10.7% of area)	55	Worswick	5w	—	30	33.5	3.58
	35	Arlynda	5w	—	30		
	5	Bigtree	2e	—	90		
	5	Fluventic dystrudepts, loamy-skeletal	4s	—	40		
226—Arcata and Candymountain soils, 2 to 9 percent slopes (89.3% of area)	50	Arcata	2e	2e	90	78.2	69.83
	35	Candymountain	3e	—	70		
	4	Halfbluff	2e	2e	90		
	4	Urban land, residential	8	—	0		
	3	Megwil,	2e	2e	90		
	2	Talawa	5w	5w	30		
	2	Timmons	2e	2e	90		
LCC Total Score							**73.52**

Source: USDA NRCS Web Soil Survey, 2024

2.1.2. Storie Index Rating

The Storie Index provides a numeric rating based on a 100 point scale of the relative degree of suitability or value of a given soil for intensive agriculture. The rating is based upon soil characteristics only. Four factors that represent the inherent characteristics and qualities of the soil are considered in the index rating: profile characteristics, texture of the surface layer, slope, and other factors (e.g drainage, salinity). Storie Index values for each soil type at the Project site are summarized in Table 4.The overall Storie Index value is obtained by multiplying the aerial proportion of each soil type by the weighted Storie Index values of each soil type.

Table 4. Storie Index Score for the We Are Up Project Site

Map symbol and soil name	**Pct. of map unit**	**California Revised Storie Index (CA)**		**Weighted Value**
		Rating class	**Value**	
171—Worswick-Arlynda complex 0 to 2 percent slopes (10.7% of area)				
Worswick	55	Grade 3 - Fair	50	51.65
Arlynda	35	Grade 3 - Fair	49	
Bigtree	5	Grade 1 - Excellent	85	
Fluventic Dystrudepts, loamy-skeletal	5	Grade 3 - Fair	55	
226—Arcata and Candymountain soils, 2 to 9 percent slopes (89.3% of area)				
Arcata	50	Grade 1 - Excellent	89	77.04
Candymountain	35	Grade 2 - Good	72	
Halfbluff	4	Grade 2 - Good	62	
Urban land, Residential	4	Not Rated		
Megwil,	3	Grade 1 - Excellent	82	
Talawa	2	Grade 4 - Poor	30	
Timmons	2	Grade 1 - Excellent	90	
			Storie Index Total	**74.32**

Source: USDA NRCS Web Soil Survey, 2024

2.2 Site Assessment Factors

The California LESA model includes 4 Site Assessment factors that are separately rated:

1. The project size rating,
2. The water resources availability rating,
3. The surrounding agricultural land rating, and
4. The surrounding protected resource land rating.

2.2.1. Project Size Rating

The inclusion of the measure of a project size in the LESA model is the recognition of the role that farm size plays in the viability of commercial agricultural operations. In general, larger farming operations can provide greater flexibility in farm management and marketing decisions. Certain economies of scale for equipment and infrastructure can also be more favorable for larger operations. In addition, larger operations tend to have greater impacts upon the local economy through direct employment, as well as impacts upon support industries (e.g. fertilizers, farm equipment, and shipping) and food processing industries.

In terms of agricultural productivity, the size of a farming operation can be considered not just from its total acreage, but the acreage of different quality lands that comprise the operation. Lands with higher quality soils lend themselves to greater management and cropping flexibility and have the potential to provide a greater economic return per unit acre. For a given project, instead of relying upon a single acreage figure in the project size rating, the project is divided into 3 acreage groupings based upon the LCC ratings determined above. This is done by grouping the LCC classes according to their suitability, adding the acreages of each up, and assigning a point score to the total acreage for that LCC class. The LCC class with the highest point score is used in the final project LESA model score.

The assigned point scores are shown in Table 5. The results are summarized in Table 6.

Table 5. Project Size Scoring

LCC Class I or II soils		LCC Class III soils		LCC Class IV or lower	
Acres	***Score***	***Acres***	***Score***	***Acres***	***Score***
80 or above	100	160 or above	100	320 or above	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
fewer than 10	0	20-39	30	fewer than 40	0
		10-19	10		
		fewer than 10	0		

Table 6. Project Size Score for the We Are Up Project Site

Map symbol and soil name	Acres	Acres of LCC Class I - II	Acres of LCC Class III	Acres of LCC Class IV - VII
Worswick	1.02			1.02
Arlynda	0.65			0.65
Bigtree	0.09	0.09		
Fluventic Dystrudepts, loamy-skeletal	0.09			0.09
Arcata	7.76	7.76		
Candymountain	5.43		5.43	
Halfbluff	0.62	0.62		
Urban land, Residential	0.62			0.62
Megwil,	0.47	0.47		
Talawa	0.31			0.31
Timmons	0.31	0.31		
Total	17.38	9.25	5.43	2.70
Highest Size Project Score				**30**

Source: USDA NRCS Web Soil Survey, 2024

2.2.2 Water Resources Availability Rating

The Water Resources Availability Rating, used to determine agricultural viability of a site, is based upon identifying the various water sources that may supply the property, and then determining whether different restrictions in supply are likely to take place in years that are characterized as being periods of drought or non-drought. Three factors are incorporated into the LESA model. First water reliability is classified based on the effects on agricultural production rather than on the actual type of limitation. Second the rating is tied to an interrelation between water availability and cost: a more reliable water supply can sometimes be obtained, but at a greater cost. Water restrictions are classified into two categories; Physical and economic. The greater impact the physical restrictions of water on agriculture is accounted for in the LESA model. Third the factor includes the effect of the drought cycle in California. A project site that experiences restrictions during a drought year is not scored as high as a similar project site that does not.

Since the adoption of the first McKinleyville Community Plan in 1985 the property has been

used for single family and multifamily housing with a large open space area adjacent to Mill Creek, which runs along the south property line of the Project site[1]. The current uses on the project site use domestic water from the McKinleyville Community Services District (MCSD). Due to cost, domestic water from the MCSD is not likely to be economical for crop irrigation purposes. While the Project site has access to a riparian water source (Mill Creek), no water system has been constructed to provide irrigation water from that source. Given this information the Water Resource Availability Rating Score was determined to be 0.

2.2.3. Surrounding Agricultural Land Rating

The Surrounding Agricultural Land Rating is designed to provide a measurement of the level of agricultural land use for lands in close proximity to the subject property. The LESA model rates the potential significance of the conversion of an agricultural parcel that has a large proportion of surrounding land in agricultural production more highly than one that has a relatively small percentage of surrounding land in agricultural production. The definition of a Zone of Influence that accounts for surrounding lands up to a maximum of 1/4 mile from the project boundary is the result of several iterations during model development for assessing an area that will generally be a representative sample of surrounding land use.

The Surrounding Agricultural Land rating is based upon the identification of the projects zone of influence, which is defined as that land near a given project, both directly adjoining and within a defined distance away, that is likely to influence, and be influenced by, the agricultural land use of the subject property. The Zone of Influence around the project site is illustrated in Figure 3. The Surrounding Agricultural Land Score is determined based on the percent of the project's Zone of Influence in agricultural use as shown in Table 7. There are approximately 15 acres of agricultural-zoned property within the Zone of Influence which is 5.6% of the area. This results in a Surrounding Agricultural Land Score of 0.

Table 7. Surrounding Agricultural Land Scoring

Percent of Project's Zone of Influence in Agricultural Use	Surrounding Agricultural Land Score
90 - 100%	100 Points
80 - 89	90
75 - 79	80
70 - 74	70
65 - 69	60
60 - 64	50
55 - 59	40
50 - 54	30
45 - 49	20
40 - 44	10
40 <	0

[1] Google Earth Imagery of the Project Site, 1985.

2.2.4 Surrounding Protected Resource Land Rating

The Surrounding Protected Resource Land Rating is essentially an extension of the Surrounding Agricultural Land Rating, and is scored in a similar manner. Protected Resource Lands are those lands with long term use restrictions that are compatible with or supportive of agricultural uses of land. Included among them are the following:

1. Williamson act contracted Lands
There are no Williamson Act contracted lands within the Zone of Influence.

2. Publicly owned lands maintained as a park, forest, or watershed resource
There is a 9-1/2 acre property within the Zone of Influence owned by the McKinleyville Land Trust, a Non-Profit organization, that is used as a public park (Chah-GAH-Cho Trail).

3. Lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses.
There are no agricultural, wildlife habitat, or open space easements that restrict the conversion of land within the Zone of Influence.

The Surrounding Protected Resource Land score is 0 because the 9.5 acre public park within the Zone of Influence is less than 40% of the area of the Zone of Influence (Table 7).

Table 8. Surrounding Agricultural Land and Surrounding Protected Resource Land Score for the We Are Up Project Site.

Zone of Influence						
Total Acres	**Acres in Agriculture**	**Acres of Protected Resource Land**	**Percent in Agriculture**	**Percent Protected Resource Land**	**Surrounding Agricultural Land Score**	**Surrounding Protected Resource Land Score**
265	15	9.5	5.7	3.6	0	0

Source: Planwest Partners, 2024

2.3 Weighting of Factors and Final LESA Model Scoring

The LESA model is weighted so that 50% of the total LESA score of a given project is derived from the Land Evaluation Factors and 50% from the Site Assessment Factors. Individual Factor weights are listed in Table 9, with the total Factor sum equal to 100%. Each Factor's Score is multiplied by its respective Factor Weight to determine a Weighted Factor Score. The Weighted Factor Scores are then summed to yield a Final LESA Score for the Project as shown in Table 9.

Table 9. Final LESA Model Score for the We Are Up Project

	Factor Scores	**Factor Weight**	**Weighted Factor Scores**
Land Evaluation Factors			
Land Capability Classification	73.52	0.25	18.38
Storie Index Classification	74.32	0.25	18.58
Land Evaluation Subtotal		0.50	36.96
Site Assessment Factors			
Project Size	30	0.15	4.5
Water Resource Availability	0	0.15	0
Surrounding Agricultural Land	0	0.15	0
Protected Resource Land	0	0.05	0
Site Assessment Subtotal		0.50	4.5
		Final LESA Score	**41.46**

Source: Planwest Partners, 2024

3. DETERMINATION OF SIGNIFICANCE UNDER CEQA

The LESA model is designed to make determinations of the potential significance of a project's conversion of agricultural lands during CEQA review period scoring thresholds are based upon the total LESA score as well as the individual Land Evaluation and Site Assessment sub scores. This is so scoring thresholds are independent upon the attainment of a minimum score for the Land Evaluation and Site Assessment subscores so that a single threshold is not the result of heavily skewed subsscores (i.e.a site with a very high Land Evaluation subscore, but very low Site Assessment subscore, or vice versa. The LESA score scoring thresholds are summarized in Table 10.

Table 10. California LESA Model Scoring Thresholds of Significance

Total LESA Score	**Scoring Decision**
0 to 39 Points	Not considered Significant
40 to 59 Points	Considered significant only if Land Evaluation and Site Assessment sub scores are each greater than or equal to 20 points
60 to 79 Points	Considered Significant unless either land evaluation or site assessment subscore is less than 20 points
80 to 100 Points	Considered Significant

The Final LESA score for the project is 41.46, the Land Evaluation subscore is 36.96 and the Site Assessments subscore is 4.5 as shown in Table 9. According to the California Agricultural LESA Model Threshold for Significance shown in Table 10, a Final LESA score of 41.6 indicates that a conversion of agricultural land to non agricultural use resulting from the Project is considered significant “only if the Land Evaluation and Site Assessment subscores are each greater than or equal to 20 points”. Since the Site Assessment subscore is less than 20 points for the subject property, pursuant to the LESA model, the proposed conversion of the site would not be considered significant. Furthermore the majority of the project, approximately 13 acres will remain as vacant land to allow for low impact agricultural and recreational uses consistent with the surrounding urban suburban land uses.

4 REFERENCES

California Department of Conservation. *California Agricultural Land Evaluation and Site Assessment Model*, 1997.

U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, accessed December, 2024.

Humboldt County Planning and Building Department, Land Information System GIS Layer, https://humboldtgov.org/DocumentCenter/View/568, accessed December, 2024.

Humboldt County Planning and Building Department, Zoning GIS Layer, https://humboldtgov.org/DocumentCenter/View/685, accessed December, 2024.

APPENDIX A – Figures

Figure 1. Location Map

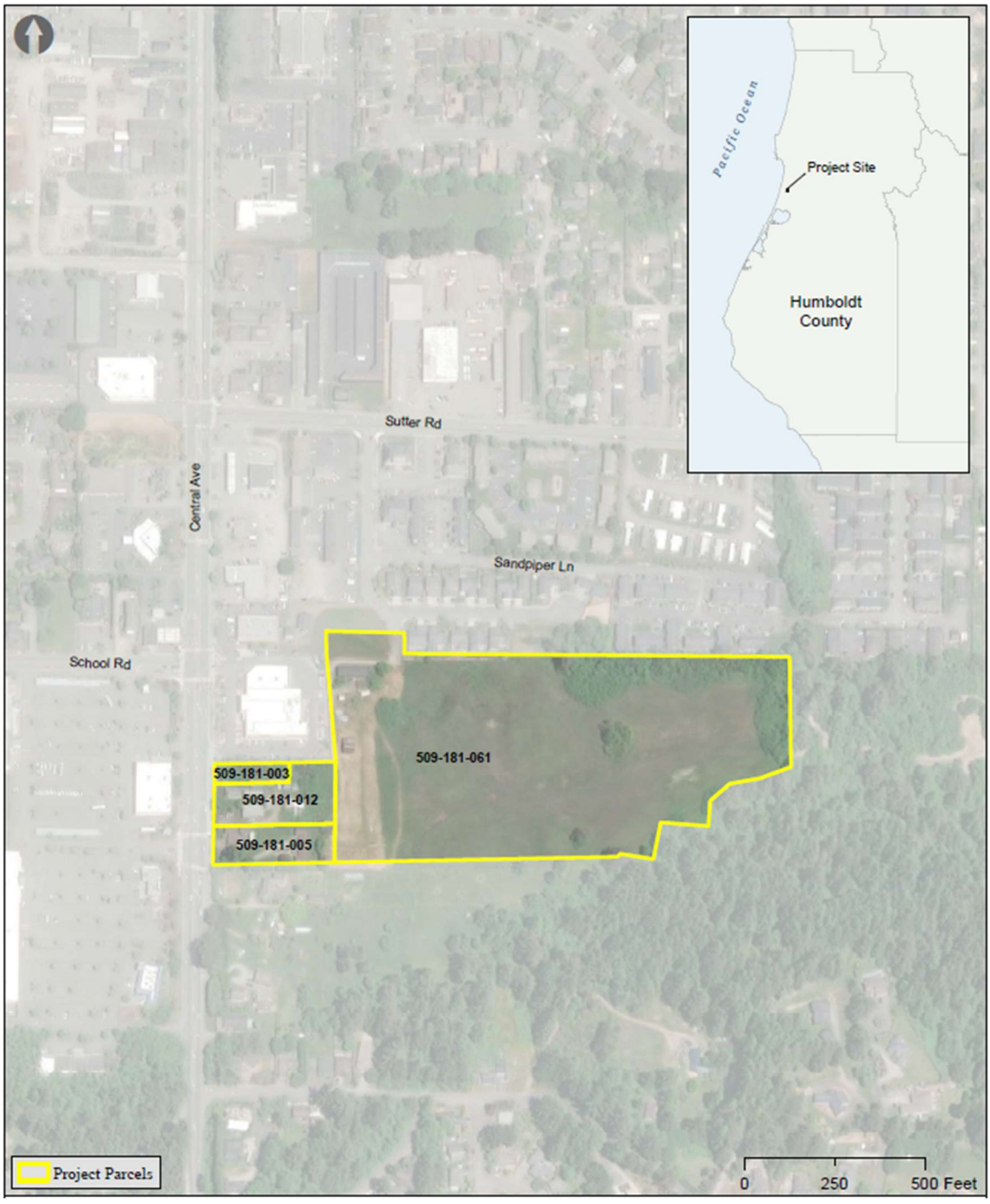

Figure 2. Soil Types on the We Are Up Project Site

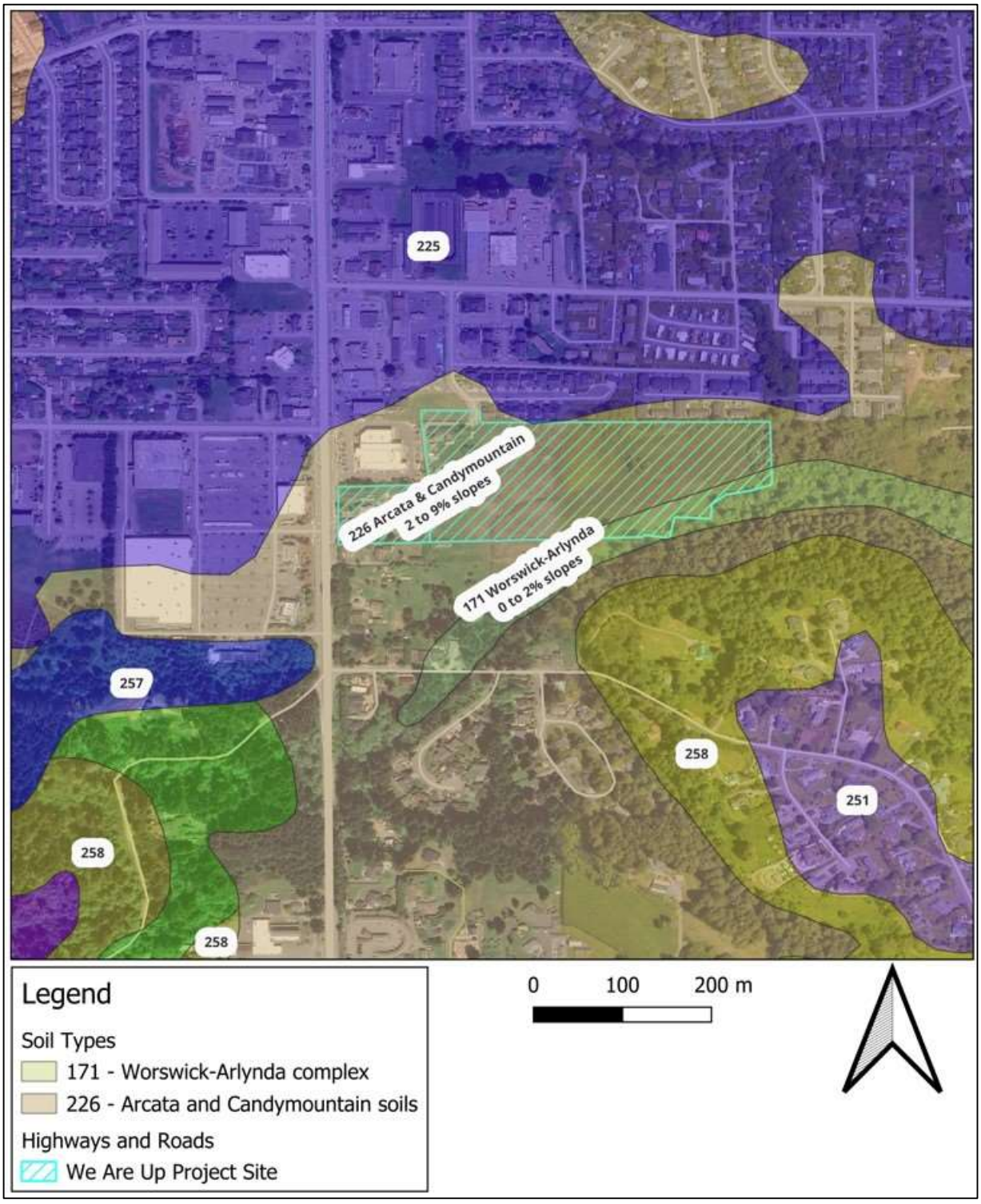

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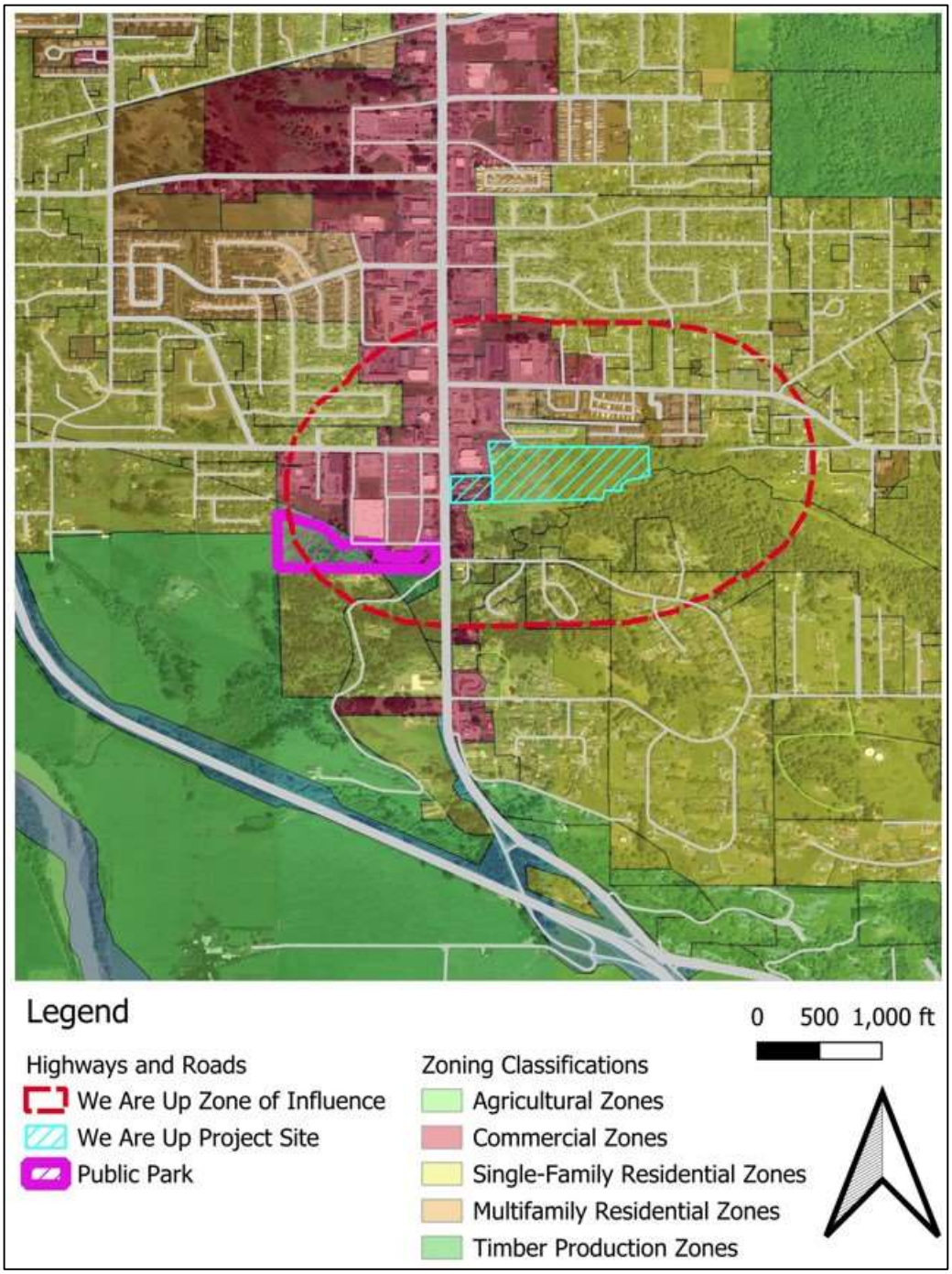
Figure 3. Zone of Influence



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