

**Appendix 3A**  
**MODA Criteria, Subcriteria, and**  
**Associated Measurement Scales**

**Table 3A-1. Screening Criteria**

ID #	Screening Criteria and Subcriteria	Measurement Scale
1	<i>Optimizes separation of potential odor and nuisance-generating elements from existing land uses with potentially sensitive receptors. Acres (current or planned) with the following sensitive receptors: residential, certain commercial, schools, hospitals, daycares, and recreational areas within three zones from center of primary operations (landfill and compost).</i>	
1a	<b>Zone 1:</b> Acres with sensitive receptors (as defined above) within 0 to 1.5 miles of landfill and compost facility centers.	Acres and years
1b	<b>Zone 2:</b> Acres with sensitive receptors (as defined above) within 1.5 to 2.5 miles of landfill and compost facility centers.	Acres and years
1c	<b>Zone 3:</b> Acres with sensitive receptors (as defined above) within 2.5 to 4 miles of landfill and compost facility centers and within the prevailing wind direction.	Acres and years
2	<i>Minimizes environmental impacts to wetlands or vernal pools. Acreage of potential environmental impacts to wetlands or vernal pools that will be impacted on the Eastern or Western properties in two categories (critical and non-critical elements).</i>	
2a	<b>Critical facility elements (including necessary supporting elements):</b> Acres of potential environmental impacts (as defined above).	Acres
2b	<b>Non-critical facility elements:</b> Acres of potential environmental impacts (as defined above).	Acres
3	<i>Minimizes impacts to areas of cultural significance. Number of identified potential historic or cultural impacts on the Eastern or Western properties in two categories (critical and non-critical elements).</i>	
3a	<b>Critical facility elements (including necessary supporting elements):</b> Number of identified potential historic or cultural impacts (as defined above).	Count
3b	<b>Non-critical facility elements:</b> Number of identified potential historic or cultural impacts (as defined above).	Count
4	<i>Minimizes offsite traffic impacts (air emissions, traffic impacts, and wear and tear on roads). Measure based on estimated round-trip trucks needed for offsite disposal based on the waste forecast through the years requiring disposal.</i>	Trucks
5	<i>Addresses disposal and diversion capacity: Provides onsite capacity and expansion area to support current and anticipated compost, C&amp;D, and landfill needs of the current and future population and development.</i>	Years of landfill
6	<i>Creates opportunities for industrial innovation and economic growth. Acres reserved for potential compatible manufacturing. Reflecting the potential to create opportunities for industrial innovation and economic growth, including land for growth and availability or readily upgradable utility connections.</i>	Acres for industrial innovation
7	<i>Optimizes onsite traffic and material flow. Rated on a 1-to-5 scale the reflecting degree to which the planned concept improves separation of public, commercial, operational traffic; provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents; optimizes traffic flow patterns for reduced wait times and improved customer convenience; and optimizes operational materials transport (time and air emissions).</i>	
7a	<b>Traffic separation:</b> Onsite traffic circulation improves separation of public, commercial, and operational traffic; and provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents to enhance safety.	1-to-5 scale
7b	<b>Traffic flow:</b> Optimizes traffic flow patterns for reduced wait times and improved customer convenience.	1-to-5 scale
7c	<b>Material transport:</b> Optimizes operational materials transport (time and air emissions).	1-to-5 scale
8	<i>Provides flexibility for future operations or infrastructure needs. Rated on a 1-to-5 scale reflecting potential for space between project elements to allow for future changes including capacity needs, odor mitigation enhancements, or necessary operational changes resulting from fluctuating recycling markets while maintaining sufficient proximity to allow for efficient flow of materials.</i>	1-to-5 scale
9	<i>Minimizes external financing. Total capital cost in first 5 years; reflecting degree that concept may require external financing (for large capital expenditures) in the first 5 years.</i>	Total Capital Cost (\$) in first 5 years

**Appendix 3B**  
**MODA Raw Scores Detail, Rationale, and**  
**Background Calculations**

## **Appendix 3B. MODA Scores Detail, Rationale, and Background Calculations**

This appendix contains the details of the unweighted MODA scores that were prepared by the consulting team. The summary table below shows the criteria, the measurement scales for the criteria, and the resulting scores and rationale from applying the criteria. Following the summary table, each criterion is discussed in a subsection which contains additional details of the scoring process for that criterion.

# Scoring Sheet

Last Revised: 11/1/18

## Renewable Placer: Waste Action Plan

Determine the optimal concept layout for Renewable Placer: Waste Action Plan

ID #	Screening Criteria and Subcriteria	Measurement Scale	Worst Feasible Outcome	Best Feasible Outcome	Plan Concept 0	Plan Concept 1	Plan Concept 2
1	<b>Optimizes separation of potential odor and nuisance-generating elements from existing land uses with potentially sensitive receptors. Acres (current or planned) with the following sensitive receptors: residential, certain commercial, schools, hospitals, daycares, and recreational areas within three zones from center of primary operations (landfill and compost).</b>						
1a	<b>Zone 1:</b> Acres with sensitive receptors (as defined above) within 0 to 1.5 miles of landfill and compost facility centers.	Acres and years	3,000	1,000	1,810	2,791	2,726
1b	<b>Zone 2:</b> Acres with sensitive receptors (as defined above) within 1.5 to 2.5 miles of landfill and compost facility centers.	Acres and years	17,000	10,000	11,020	15,939	15,220
1c	<b>Zone 3:</b> Acres with sensitive receptors (as defined above) within 2.5 to 4 miles of landfill and compost facility centers and within the prevailing wind direction.	Acres and years	2,000	1,000	1,270	1,744	1,540
2	<b>Minimizes environmental impacts to wetlands or vernal pools. Acreage of potential environmental impacts to wetlands or vernal pools that will be impacted on the Eastern or Western properties in two categories (critical and non-critical elements).</b>						
2a	<b>Critical facility elements (including necessary supporting elements):</b> Acres of potential environmental impacts (as defined above).	Acres	15	0	0.94	13.31	9.04
2b	<b>Non-critical facility elements:</b> Acres of potential environmental impacts (as defined above).	Acres	20	0	0	9	12
3	<b>Minimizes impacts to areas of cultural significance. Number of identified potential historic or cultural impacts on the Eastern or Western properties in two categories (critical and non-critical elements).</b>						
3a	<b>Critical facility elements (including necessary supporting elements):</b> Number of identified potential historic or cultural impacts (as defined above).	Count	Most	Least	0	0	0
3b	<b>Non-critical facility elements:</b> Number of identified potential historic or cultural impacts (as defined above).	Count	Most	Least	0	0	0

Scoring Rationale		
Plan Concept 0	Plan Concept 1	Plan Concept 2
N/A		
Compost Existing: 0 Landfill Existing: 0 Compost Planned: 1,123.41 Landfill Planned: 2,061.07 Assumes 30 years of landfilling; assume compost facility around entire Present Value (PV) duration Value = (30/90) * (acres of sensitive receptors within 0 to 1.5 miles of landfill centroid) + (acres of sensitive receptors within 0 to 1.5 miles of acres compost centroid)	Compost Existing: 0 Landfill Existing: 0 Compost Planned: 1,237.55 Landfill Planned: 1,553.15 Assumes 90 years of landfilling; assume compost facility around entire PV duration Value = (90/90) * (acres of sensitive receptors within 0 to 1.5 miles of landfill centroid) + (acres of sensitive receptors within 0 to 1.5 miles of acres compost centroid)	Compost Existing: 0 Landfill Existing: 0 Compost Planned: 1,123.41 Landfill Planned: 2,061.07 Assumes 70 years of landfilling; assume compost facility around entire PV duration Value = (70/90) * (acres of sensitive receptors within 0 to 1.5 miles of landfill centroid) + (acres of sensitive receptors within 0 to 1.5 miles of acres compost centroid)
Compost Existing: 6,166.4 Landfill Existing: 6,458.2 Compost Planned: 2,281.88 Landfill Planned: 1,258.25 Assumes 30 years of landfilling; assume compost facility around entire PV period Value = (30/90) * (acres of sensitive receptors within 1.5 to 2.5 miles of landfill centroid) + (acres of sensitive receptors within 1.5 to 2.5 miles of acres compost centroid)	Compost Existing: 5,328.36 Landfill Existing: 6,604.28 Compost Planned: 2,250.33 Landfill Planned: 1,756.24 Assumes 90 years of landfilling; assume compost facility around entire PV period Value = (90/90) * (acres of sensitive receptors within 1.5 to 2.5 miles of landfill centroid) + (acres of sensitive receptors within 1.5 to 2.5 miles of acres compost centroid)	Compost Existing: 6,166.4 Landfill Existing: 7,201.89 Compost Planned: 2,281.88 Landfill Planned: 1,504.22 Assumes 70 years of landfilling; assume compost facility around entire PV period Value = (70/90) * (acres of sensitive receptors within 1.5 to 2.5 miles of landfill centroid) + (acres of sensitive receptors within 1.5 to 2.5 miles of acres compost centroid)
Compost Existing: 730.09 Landfill Existing: 953.76 Compost Planned: 169.97 Landfill Planned: 157.17 Assumes 30 years of landfilling; assume compost facility around entire PV period Value = (30/90) * (acres of sensitive receptors within 2.5 to 4 miles of landfill centroid) + (acres of sensitive receptors within 2.5 to 4 miles of acres compost centroid)	Compost Existing: 453.57 Landfill Existing: 979.63 Compost Planned: 138.25 Landfill Planned: 172.59 Assumes 90 years of landfilling; assume compost facility around entire PV period Value = (90/90) * (acres of sensitive receptors within 2.5 to 4 miles of landfill centroid) + (acres of sensitive receptors within 2.5 to 4 mile of acres compost centroid)	Compost Existing: 730.09 Landfill Existing: 640.34 Compost Planned: 169.97 Landfill Planned: 182.67 Assumes 70 years of landfilling; assume compost facility around entire PV period Value = (70/90) * (acres of sensitive receptors within 2.5 to 4 miles of landfill centroid) + (acres of sensitive receptors within 2.5 to 4 miles of acres compost centroid)
N/A		
0 acres of impact for critical elements, 0.94 acre for supporting. <b>Least impact.</b> No critical elements on Eastern or Western properties.	10.981 acres of impact for critical elements and 2.332 acres for supporting. <b>Most impact.</b> Critical elements located on Eastern (Landfill) and Western (Public and Composting) properties.	7.520 acres of impact for critical elements and 1.520 acres for supporting. <b>Second-highest impact.</b> Critical elements located on Eastern (portion of C&D) and Western (Landfill) properties.
0 acres of impact for non-critical elements. <b>Least impact.</b> No non-critical elements on Eastern or Western properties.	9.274 acres of impact for non-critical elements. <b>Second highest impact.</b> Non-critical elements on Western property, none on Eastern property.	12.140 acres of impact for non-critical. <b>Most impact.</b> Non-critical elements located on Eastern and Western properties.
N/A		
None based on desktop survey. The potential for historic period resources is moderate because of long-term agricultural use of the area.		
None based on desktop survey. The potential for historic period resources is moderate because of long-term agricultural use of the area.		

# Scoring Sheet

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## Renewable Placer: Waste Action Plan

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ID #	Screening Criteria and Subcriteria	Measurement Scale	Worst Feasible Outcome	Best Feasible Outcome	Plan Concept 0	Plan Concept 1	Plan Concept 2
4	<b>Minimizes offsite traffic impacts (air emissions, traffic impacts, and wear and tear on roads). Measure based on estimated round-trip trucks needed for offsite disposal based on the waste forecast through the years requiring disposal.</b>	Trucks	2,000,000	42,848	1,968,817	42,848	816,062
5	<b>Addresses disposal and diversion capacity: provides onsite capacity and expansion area to support current and anticipated compost, C&amp;D, and landfill needs of the current and future population and development.</b>	Years of landfill	20	100	30	90	70
6	<b>Creates opportunities for industrial innovation and economic growth. Acres reserved for potential compatible manufacturing. Reflecting the potential to create opportunities for industrial innovation and economic growth, including land for growth and availability or readily upgradable utility connections.</b>	Acres for industrial innovation	0	259	0	259	172
7	<b>Optimizes onsite traffic and material flow. Rated on a 1-to-5 scale the reflecting degree to which the planned concept improves separation of public, commercial, and operational traffic; provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents; optimizes traffic flow patterns for reduced wait times and improved customer convenience; and optimizes operational materials transport (time and related air emissions).</b>						
7a	<b>Traffic separation:</b> Onsite traffic circulation improves separation of public, commercial, and operational traffic; and provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents to enhance safety.	1-to-5 scale	1	5	3	5	4
7b	<b>Traffic flow:</b> Optimizes traffic flow patterns for reduced wait times and improved customer convenience.	1-to-5 scale	1	5	4	5	4
7c	<b>Material transport:</b> Optimizes operational materials transport (time and related air emissions).	1-to-5 scale	1	5	5	3	4
8	<b>Provides flexibility for future operations or infrastructure needs. Rated on a 1-to-5 scale the reflecting potential for space between project elements to allow for future changes including capacity needs, odor mitigation enhancements, or necessary operational changes resulting from fluctuating recycling markets while maintaining sufficient proximity to allow for efficient flow of materials.</b>	1-to-5 scale	1	5	1	5	3

Scoring Rationale		
Plan Concept 0	Plan Concept 1	Plan Concept 2
Total truck trips for required offsite disposal through PV period. See details in Excel file "Combined landfill life and waste stream projections file 102218" under tab "Disposed tons and trucks."		
All three concepts provide the same composting and C&D capacity within the 25-year design time frame for those elements. Provides least landfill site life (30 years).	All three concepts provide the same composting and C&D capacity within the 25-year design timeframe for those elements. Provides longest landfill site life and greatest volume-to-footprint ratio (90 years).	All three concepts provide the same composting and C&D capacity within the 25-year design time frame for those elements. Provides next-highest landfill site life (70 years).
Provides no opportunities for industrial innovation as defined for this project (constrained to existing site and limited to critical elements). Plan Concept 0 would not include applicable utility upgrades.	Includes area set aside for University Research, Pilot Study, and LFG to CNG (equal area in Plan Concept 1 and 2). Includes <b>259</b> total acres of Compatible Manufacturing. Provides greatest opportunity for industrial innovation. Plan Concept 1 would include applicable utility upgrades.	Includes area set aside for University Research, Pilot Study, and LFG to CNG (equal area in Plan Concept 1 and 2). Includes <b>172</b> total acres of Compatible Manufacturing. Plan Concept 1 would include applicable utility upgrades.
N/A		
Moderate separation of traffic. Shared entrance, but somewhat divided routes for public, commercial, and operations traffic.	Greatest separation of traffic attributable to Public and Compost areas located on Western property with separate entrances and routes for public, commercial, and operations traffic.	Moderate separation of traffic. Shared entrance, but somewhat divided routes for public, commercial, and operations traffic. Has ability to provide greater entrance updates and to shift entrance traffic onto Eastern property to provide more traffic queueing space.
Provides improved but not as optimized traffic flow for reduced wait times as Plan Concept 1.	Provides most optimized traffic flow for reduced wait times by having functions grouped by customer type (e.g., one-stop shop for Public).	Provides improved but not as optimized traffic flow for reduced wait times as Plan Concept 1.
<b>Highest degree</b> of operational proximity. Compost, Public, C&D, and Landfill on Existing Site; minimizes associated time and air emissions.	<b>Lowest degree</b> of operational proximity. Public and Compost on Western Property. Landfill and C&D on Existing Site.	<b>Second highest</b> degree of operational proximity. Compost, Public, and C&D on the same property; however, <b>landfill is bifurcated</b> on Existing Site and Western Property.
Provides the least flexibility for modifications to future operations (constrained to Existing Site).	Provides the most flexibility for modifications to future operations (uses Existing Site, Eastern Property, and Western Property) based on layout and space available for future changes.	Provides some flexibility for modifications to future operations (uses existing site, eastern property, and western property), although compost, C&D, and Public are on the Existing Site with less space for future changes without significant modification in site masterplan (e.g., use of Western property).

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ID #	Screening Criteria and Subcriteria	Measurement Scale	Worst Feasible Outcome	Best Feasible Outcome	Plan Concept 0	Plan Concept 1	Plan Concept 2
9	<b>Minimizes external financing. Total capital cost in first 5 years; reflecting degree that concept may require external financing (for large capital expenditures) in the first 5 years.</b>	Total Capital Cost (\$) in first 5 years	100,000,000	400,000,000	183,500,000	130,000,000	223,800,000

Scoring Rationale		
Plan Concept 0	Plan Concept 1	Plan Concept 2
Requires near-term capital expenditures for the following: New Compost Area (Negative ASP) (year 6) New Public Area (year 1) C&D Area (year 3) New Landfill Modules Entrance Upgrades Admin building expansion/parking Recovered Material Storage <b>Excavate unlined area and relocate waste and transfer station.</b> <b>Assume start waste excavation (year 0)</b> <b>Summary: Within the first 5 years, will have several large CapEx including waste excavation, new Public Area, new C&amp;D area, entrance upgrades, landfill modules, and so on.</b>	Requires near-term capital expenditures for the following: New Compost Area (most year 1-5) New Public Area (year 3) C&D Area (year 3) Crossing (year 3) New Landfill Modules Entrance Upgrades Admin building expansion/parking Expand C&D area Recovered Material Storage <b>Does not require waste excavation.</b> <b>Summary: Within the first 5 years, will have several large CapEx including overpass crossing, new Public Area, new C&amp;D area, entrance upgrades, landfill modules, and so on.</b>	Requires near-term capital expenditures for the following: New Compost Area (Negative ASP) (year 6) New Public Area (year 1) C&D Area (year 3) Crossing (year 25) New Landfill Modules Entrance Upgrades Admin building expansion/parking Recyclables Storage Area <b>Excavate unlined area and relocate waste.</b> <b>Assume start waste excavation (year 0)</b> <b>Summary: Within the first 5 years, will have several large CapEx including waste excavation, new Public Area, new C&amp;D area, entrance upgrades, landfill modules, and so on.</b>

### 3B.1 Sensitive Receptors

Sensitive Receptors is the shortened name for criteria 1. The full name is “Optimizes separation of potential odor and nuisance generating elements from existing land uses with potentially sensitive receptors.” As shown below, there are three subcriteria for this criterion. This criterion is linked to the project goal of “Enhance operational compatibility with current and future neighboring land uses.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
1	<b>Optimizes separation of potential odor and nuisance-generating elements from existing land uses with potentially sensitive receptors. Acres (current or planned) with the following sensitive receptors: residential, certain commercial, schools, hospitals, daycares, and recreational areas within three zones from center of primary operations (landfill and compost).</b>	
1a	<b>Zone 1:</b> Acres with sensitive receptors (as defined above) within 0 to 1.5 miles of landfill and compost facility centers.	Acres and years
1b	<b>Zone 2:</b> Acres with sensitive receptors (as defined above) within 1.5 to 2.5 miles of landfill and compost facility centers.	Acres and years
1c	<b>Zone 3:</b> Acres with sensitive receptors (as defined above) within 2.5 to 4 miles of landfill and compost facility centers and within the prevailing wind direction.	Acres and years

Acres for sensitive receptors (for both existing and planned land uses) were calculated for three different zones, as identified above, for both compost and landfill. These acres were then used in the following equation to determine the raw score for this criterion:

$$Value = \left( \frac{\text{landfill life of concept}}{\text{total potential landfill life}} \right) * (\text{acres of sensitive receptors within landfill centroid}) + (\text{acres of sensitive receptors within compost centroid})$$

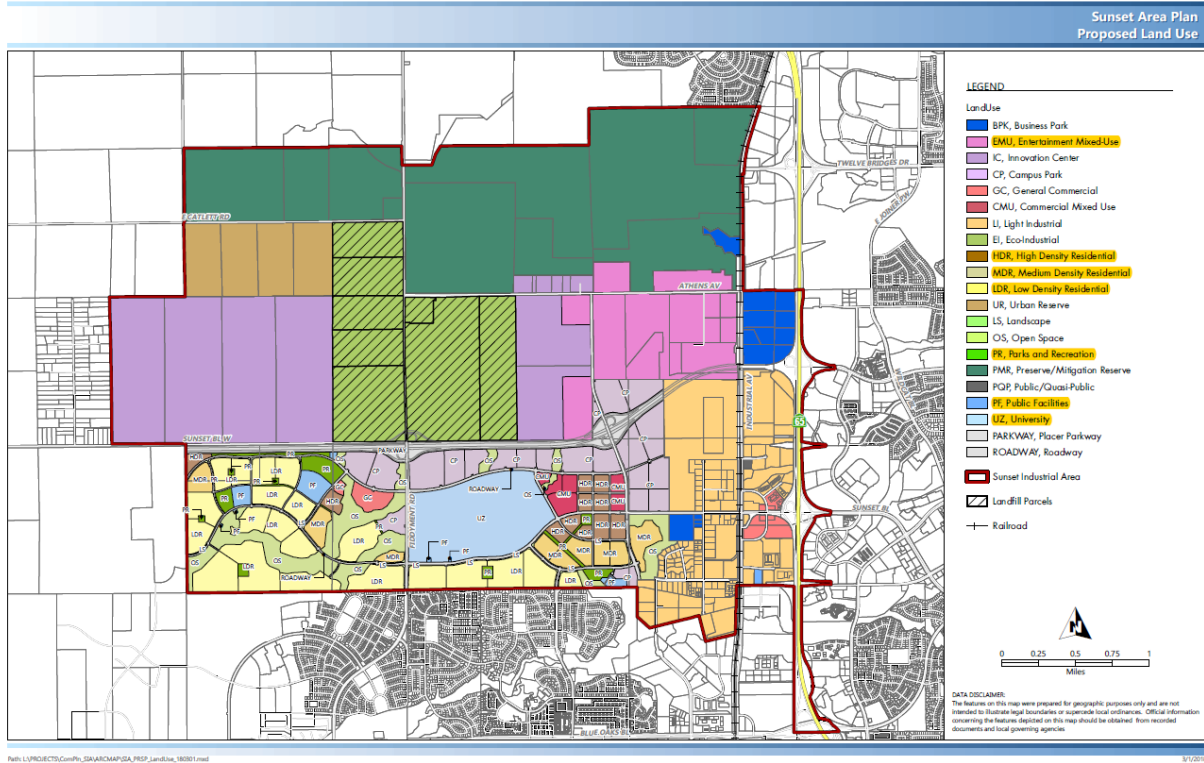
Compost life span does not vary amongst the Plan Concepts; therefore, there was no need to account for a differentiation. Landfill life does vary and was accounted for by the ratio shown in the equation above. For the landfill life of each concept, the following values were used:

- Concept 0 = 30 years
- Concept 1 = 90 years
- Concept 2 = 70 years
- Total potential landfill life = 90 years

Acres of sensitive receptors were calculated using GIS and available land use data as outlined below.

- To set a consistent basis for evaluation, a list of land uses was established to include as representative land uses for sensitive receptors. The Sunset Area Plan was reviewed to determine a list of potential land uses (see screen capture on the following page) for the evaluation. The following land use codes were identified as potential land uses that could have sensitive receptors:
  - EMU, Entertainment Mixed-Use
  - HDR, High Density Residential
  - MDR, Medium Density Residential
  - LDR, Low Density Residential
  - PR, Parks and Recreation
  - PF, Public Facilities
  - UZ, University





- In addition to these land use codes, the GIS analyst downloaded and digitized sensitive receptor data for schools, medical facilities, parks, and recreational facilities both for planned and existing land uses. GIS and planning data were not readily available for daycares. Since daycares are typically located within residential areas or associated with schools, it was assumed that the land use codes selected would account for this type of sensitive receptor. The GIS analyst then used these points to run an intersect function in GIS to find any land use areas that did not fall in the above list that may contain these specific receptors. Once the GIS analyst compiled all of these results, the analyst merged all of the data into two main sets: Existing Land Use and Planned Land Use.
- Next, the GIS analyst ran these two data sets against the three buffer zones based on landfill and compost centroids from Plan Concepts 0, 1, and 2.
- The GIS analyst then used a “clip” GIS function to only include land use polygons that fall inside the prescribed zones.
- This resulted in 12 scenarios (three concept designs with two element centroid zones, landfill and compost) for two different land use groupings (existing and planned).
- Once these 12 scenarios were compiled, the GIS analyst ran a summary function for each to find out which land use codes fall within each zone in each Plan Concept, and then calculated the sum of the acreages for each (acreages are from the land use polygons).

The data tables below show each of the concepts for the sensitive receptor acreages under each of the scenarios.

**Concept 0, Landfill Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	330	433.05
	LDR	4459	3,932.89
	MDR	818	1,172.39
	P/QP	6	70.25
	PR	67	849.62
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	114.60
	P	13	211.02
	PQP	2	60.24
	PUB	1	9.88
	R-C	7	230.62
	RES	1	327.41
	<b>Total Acreage</b>		

**Concept 0, Landfill Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	EMU	5	522.34
	HDR	7	95.52
	LDR	11	507.92
	MDR	7	128.56
	PF	8	40.55
	PR	12	72.91
	UZ	1	301.18
	<b>Total Acreage</b>		
1.5 to 2.5 miles	P/QP	6	96.17
	VHDR	11	71.48
	VLDR	28	566.93
	VMDR	22	462.25
	VPR	22	61.42
	<b>Total Acreage</b>		
2.5 to 4 miles	(null)	2	37.67
	VPARK	9	119.49
	<b>Total Acreage</b>		

**Concept 0, Compost Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	332	358.06
	LDR	5378	3,778.39
	MDR	803	1,072.24
	P	16	217.20
	P/QP	4	38.45
	PR	63	702.05
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	114.60
	PQP	2	60.24
	PUB	2	17.10
	R-C	6	210.74
	RES	1	327.41
	<b>Total Acreage</b>		

**Concept 0, Compost Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	EMU	5	522.34
	HDR	7	95.52
	PF	8	40.55
	PR	12	72.91
	<b>Total Acreage</b>		
1.5 to 2.5 miles	LDR	11	507.92
	MDR	7	128.56
	P/QP	5	88.92
	UZ	1	301.18
	VHDR	11	71.48
	VLDR	29	640.09
	VMDR	23	482.32
	VPR	22	61.42
<b>Total Acreage</b>			<b>2,281.88</b>
2.5 to 4 miles	(null)	2	31.72
	VPARK	10	138.25
	<b>Total Acreage</b>		

**Concept 1, Landfill Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	330	446.07
	LDR	5389	4,015.07
	MDR	826	1,248.45
	P/QP	6	58.39
	PR	64	836.30
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	114.60
	P	15	214.58
	PQP	3	62.79
	PUB	2	16.53
	R-C	7	243.72
	RES	1	327.41
	<b>Total Acreage</b>		

**Concept 1, Landfill Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	EMU	5	522.34
	HDR	7	95.52
	MDR	7	128.56
	PF	8	40.55
	PR	12	72.91
	UZ	1	301.18
	<b>Total Acreage</b>		
1.5 to 2.5 miles	LDR	11	507.92
	P/QP	5	88.92
	VHDR	11	71.48
	VLDR	28	565.28
	VMDR	22	461.23
	VPR	22	61.42
<b>Total Acreage</b>			<b>1,756.24</b>
2.5 to 4 miles	(null)	3	49.96
	VPARK	9	122.63
	<b>Total Acreage</b>		

**Concept 1, Compost Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	323	302.21
	LDR	3361	3,397.69
	MDR	739	632.88
	P/QP	5	42.01
	PR	60	626.16
	RES	1	327.41
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	112.33
	P	12	150.84
	PQP	1	50.31
	PUB	1	0.27
	R-C	4	139.81
	<b>Total Acreage</b>		

**Concept 1, Compost Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	HDR	7	95.52
	LDR	11	507.92
	MDR	7	128.56
	PF	8	40.55
	PR	12	72.91
	<b>Total Acreage</b>		
1.5 to 2.5 miles	EMU	5	522.34
	P/QP	6	97.42
	UZ	1	301.18
	VHDR	11	71.48
	VLDR	29	652.04
	VMDR	24	544.46
	VPR	22	61.42
<b>Total Acreage</b>			<b>2,250.33</b>
2.5 to 4 miles	VPARK	10	138.25

**Concept 2, Landfill Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	332	436.48
	LDR	4995	4,345.68
	MDR	820	1,172.46
	P/QP	6	70.25
	PR	67	849.62
	RES	1	327.41
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	114.60
	P	15	216.17
	PQP	2	60.24
	PUB	2	18.71
	R-C	7	230.62
	<b>Total Acreage</b>		

**Concept 2, Landfill Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	EMU	5	522.34
	HDR	7	95.52
	LDR	11	507.92
	MDR	7	128.56
	PF	8	40.55
	PR	12	72.91
	UZ	1	301.18
	<b>Total Acreage</b>		
1.5 to 2.5 miles	P/QP	6	96.17
	VHDR	12	89.02
	VLDR	30	667.06
	VMDR	24	590.55
	VPR	22	61.42
<b>Total Acreage</b>			<b>1,504.22</b>
2.5 to 4 miles	(null)	2	37.67
	VPARK	11	145.00
	<b>Total Acreage</b>		

**Concept 2, Compost Zones – Existing**

Zone	Land Use Code	Count	Acreage Sum
1.5 to 2.5 miles	HDR	332	358.06
	LDR	5378	3,778.39
	MDR	803	1,072.24
	P	16	217.20
	P/QP	4	38.45
	PR	63	702.05
	<b>Total Acreage</b>		
2.5 to 4 miles	LI	2	114.60
	PQP	2	60.24
	PUB	2	17.10
	R-C	6	210.74
	RES	1	327.41
	<b>Total Acreage</b>		

**Concept 2, Compost Zones – Planned**

Zone	Land Use Code	Count	Acreage Sum
0 to 1.5 miles	CP	10	392.10
	EMU	5	522.34
	HDR	7	95.52
	PF	8	40.55
	PR	12	72.91
	<b>Total Acreage</b>		
1.5 to 2.5 miles	LDR	11	507.92
	MDR	7	128.56
	P/QP	5	88.92
	UZ	1	301.18
	VHDR	11	71.48
	VLDR	29	640.09
	VMDR	23	482.32
	VPR	22	61.42
<b>Total Acreage</b>			<b>2,281.88</b>
2.5 to 4 miles	(null)	2	31.72
	VPARK	10	138.25
	<b>Total Acreage</b>		

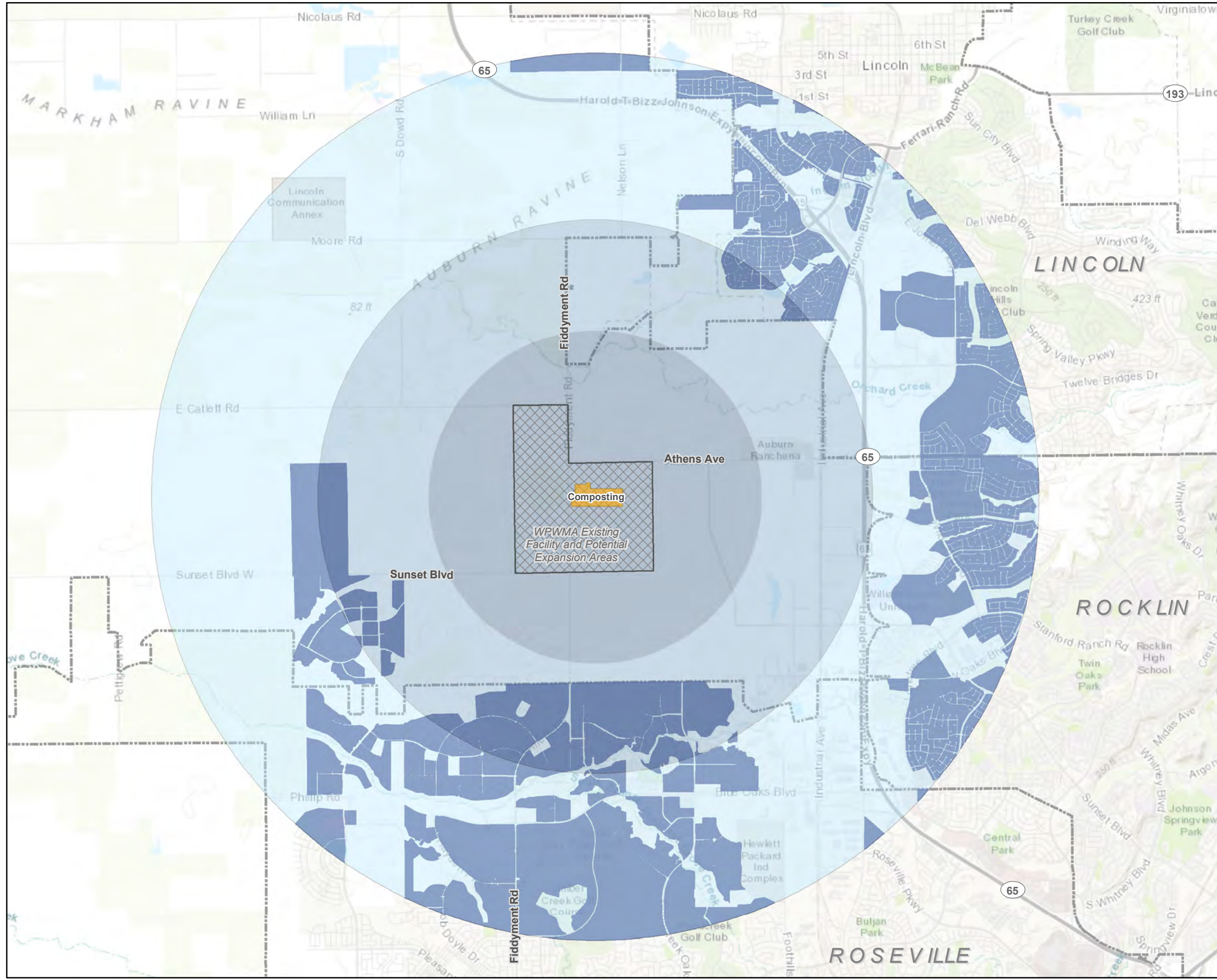
These acreages and the resulting scores and rationale are summarized in the table at the beginning of this appendix. They are also graphically represented in the figures following this text.

**Data Sources:**

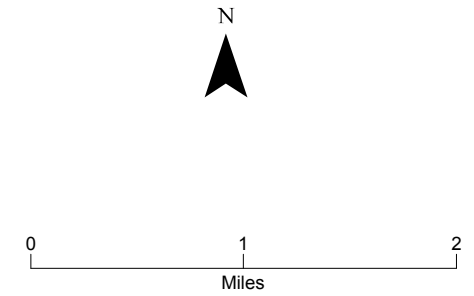
- City of Roseville
  - GIS Department (existing land use GIS shapefiles)
  - Additional PDFs from internal resources (digitized planned schools, parks, and medical facilities)
- City of Rocklin
  - GIS Department (existing land use GIS shapefiles)
  - Additional PDFs from internal resources (digitized planned schools, parks, and recreational facilities)
- City of Lincoln
  - GIS department (existing and planned land use GIS shapefiles)
- Placer County
  - GIS website (existing land use for county, and GIS shapefiles)

Note: Planned land use data was limited and was based on what the team could determine from the PDFs from internal resources and from obtainable city data.





- LEGEND**
- WPWMA Project Area
  - Potential Sensitive Receptor Land Use Area
  - Sensitive Receptor Zones**
    - 0 - 1.5 miles
    - 1.5 - 2.5 miles
    - 2.5 - 4 miles
  - Plan Concept 0**
    - Critical Element
      - Landfill Footprint Centroid

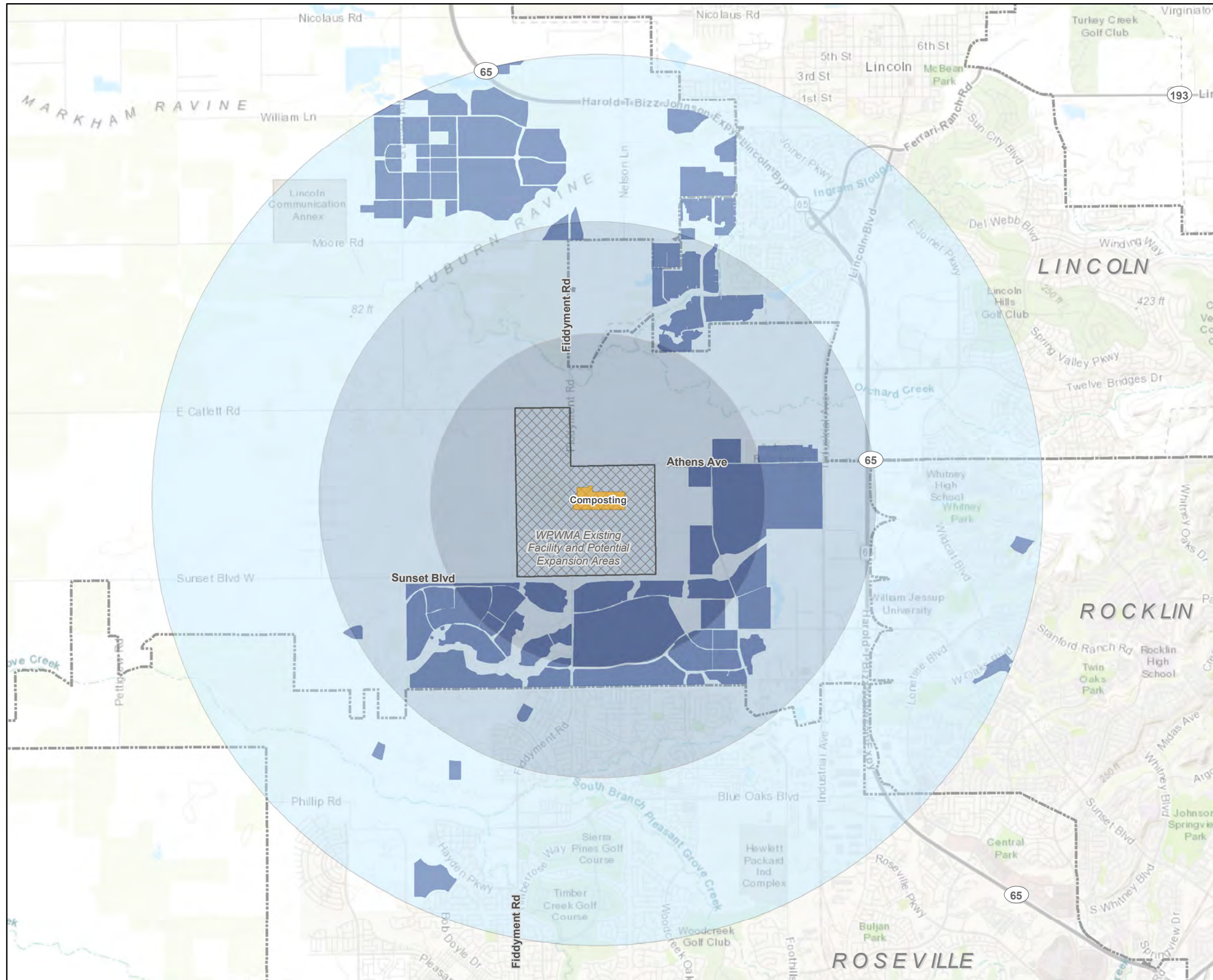


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**Plan Concept 0: Compost**  
**Existing Sensitive Receptors and**  
**Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and  
 Performance Measures  
 WPWMA, Placer County, California







- LEGEND**
- WPWMA Project Area
  - Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
- 0 - 1.5 miles
  - 1.5 - 2.5 miles
  - 2.5 - 4 miles
- Plan Concept 0**
- Critical Element
  - Landfill Footprint Centroid

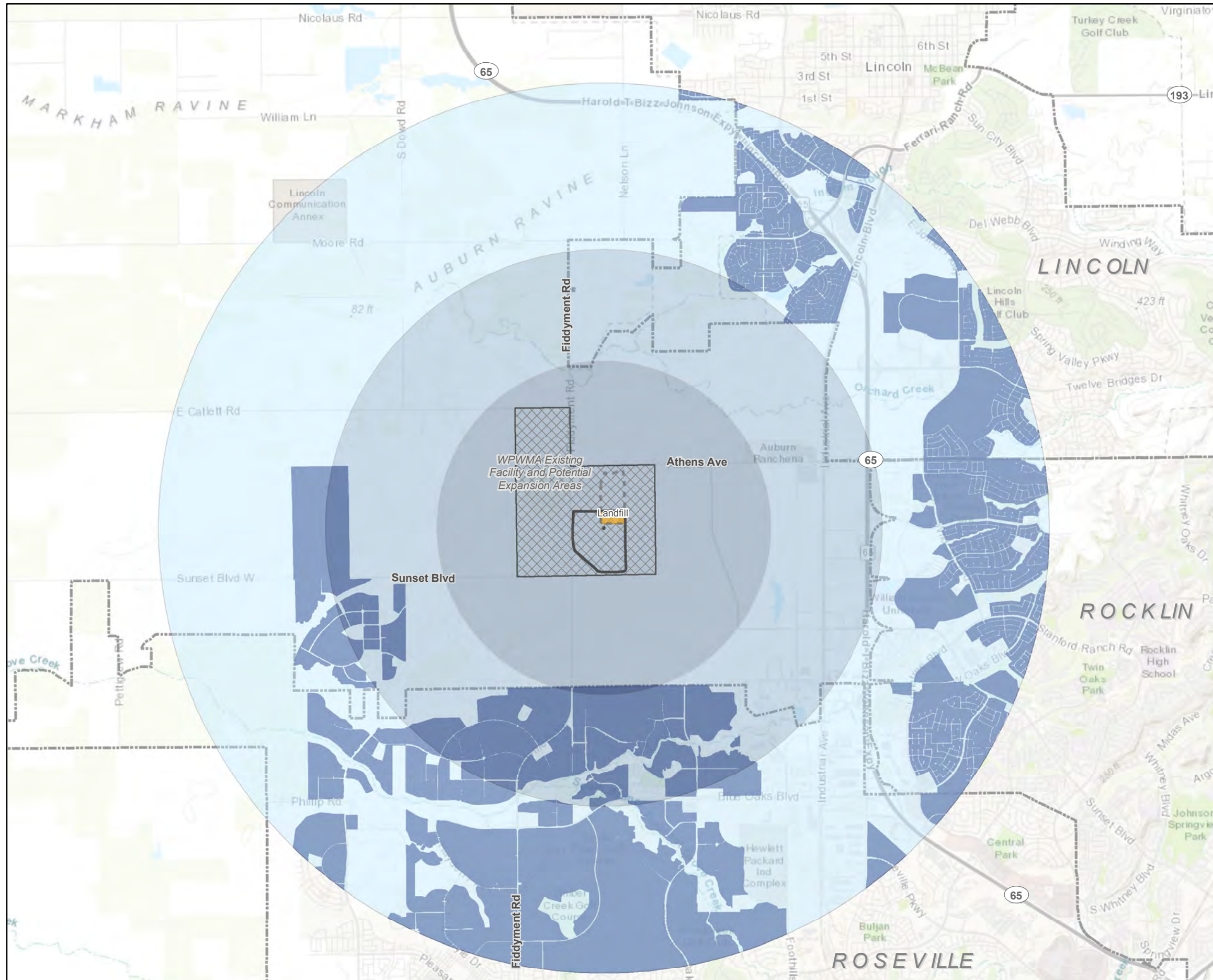


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**Plan Concept 0: Compost  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California



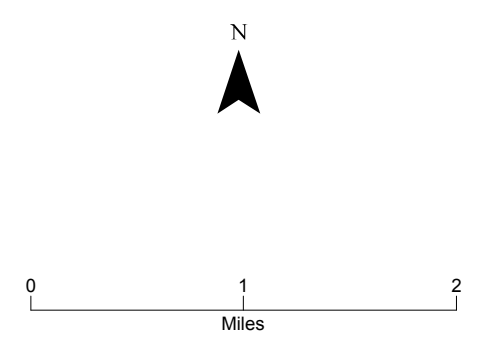




**LEGEND**

- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
  - 0 - 1.5 miles
  - 1.5 - 2.5 miles
  - 2.5 - 4 miles
- Plan Concept 0**
  - Critical Element
  - Waste Relocation Area to be Removed \*
  - Overall Landfill Footprint
  - Landfill Footprint Centroid

\*Area included in centroid calculation for zones

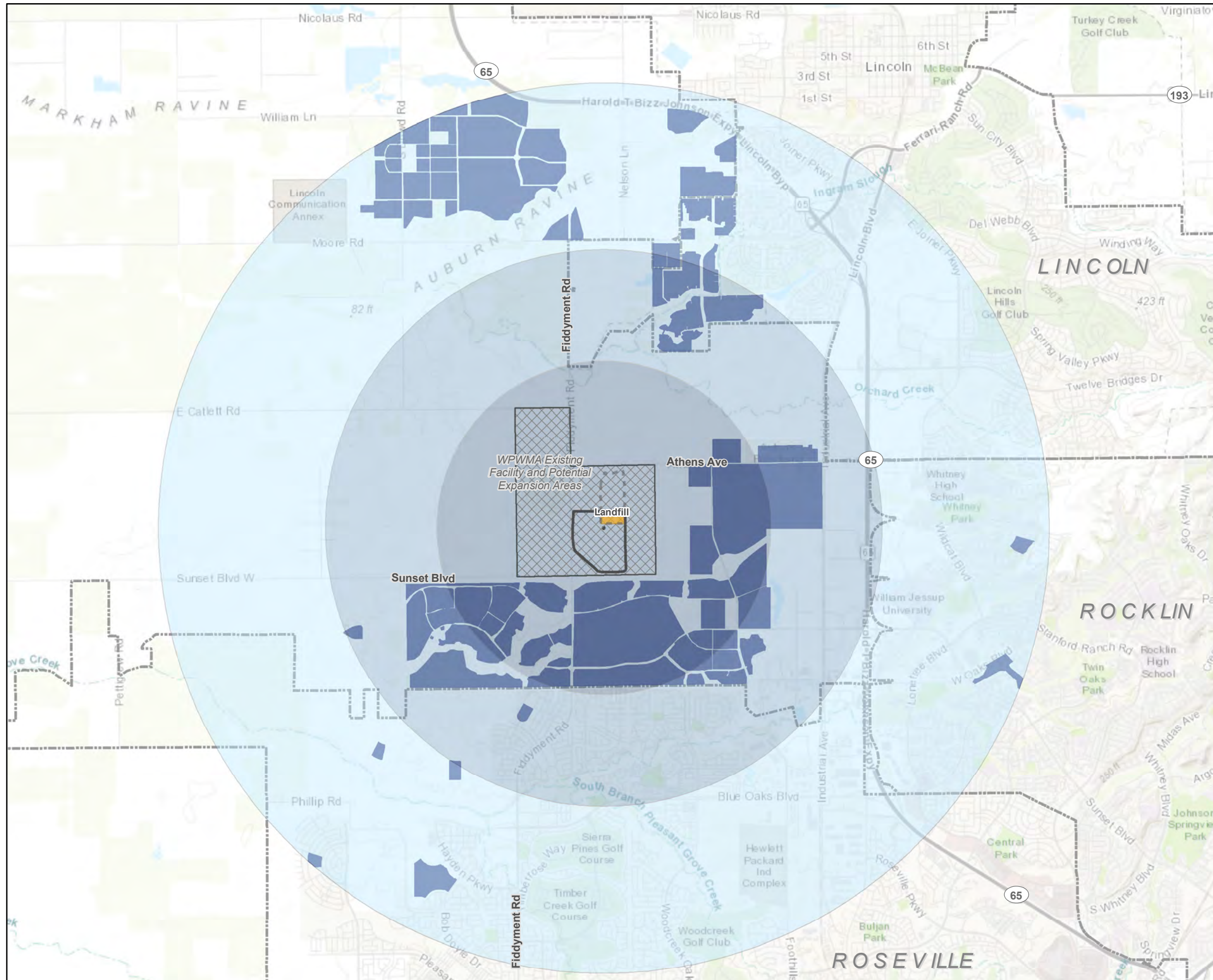


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**Plan Concept 0: Landfill**  
**Existing Sensitive Receptors and**  
**Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and  
 Performance Measures  
 WPWMA, Placer County, California







**LEGEND**

- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area

**Sensitive Receptor Zones**

- 0 - 1.5 miles
- 1.5 - 2.5 miles
- 2.5 - 4 miles

**Plan Concept 0**

- Critical Element
- Waste Relocation Area to be Removed \*
- Overall Landfill Footprint
- Landfill Footprint Centroid

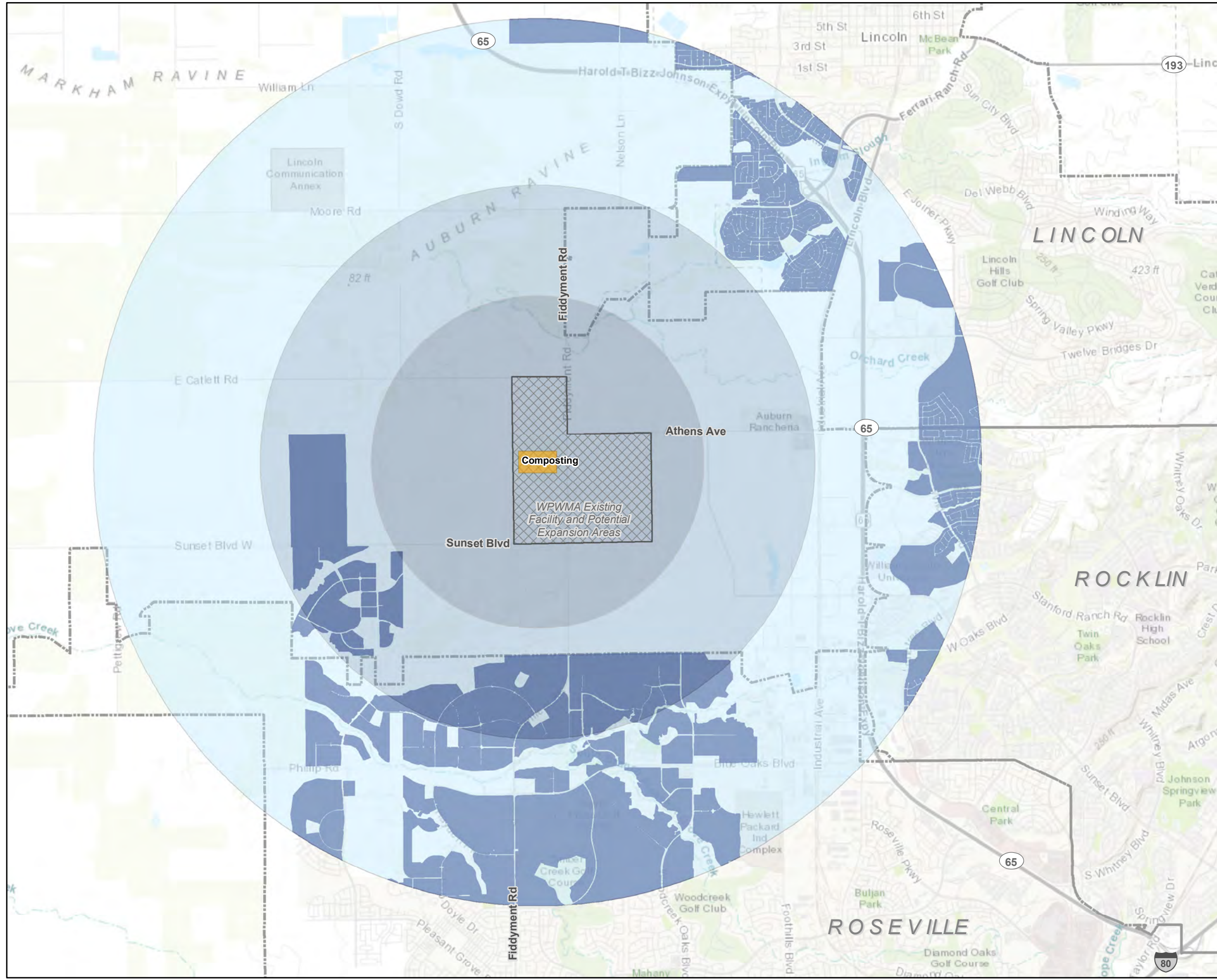
\*Area included in centroid calculation for zones

**DRAFT**

**Plan Concept 0: Landfill  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California







**LEGEND**

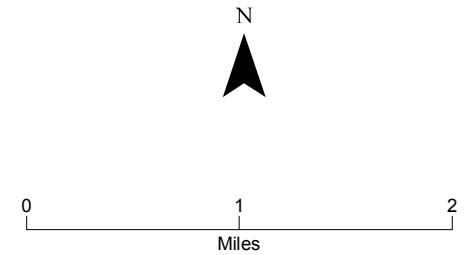
- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area

**Sensitive Receptor Zones**

- 0 - 1.5 miles
- 1.5 - 2.5 miles
- 2.5 - 4 miles

**Plan Concept 1**

- Critical Element
- Compost Footprint Centroid

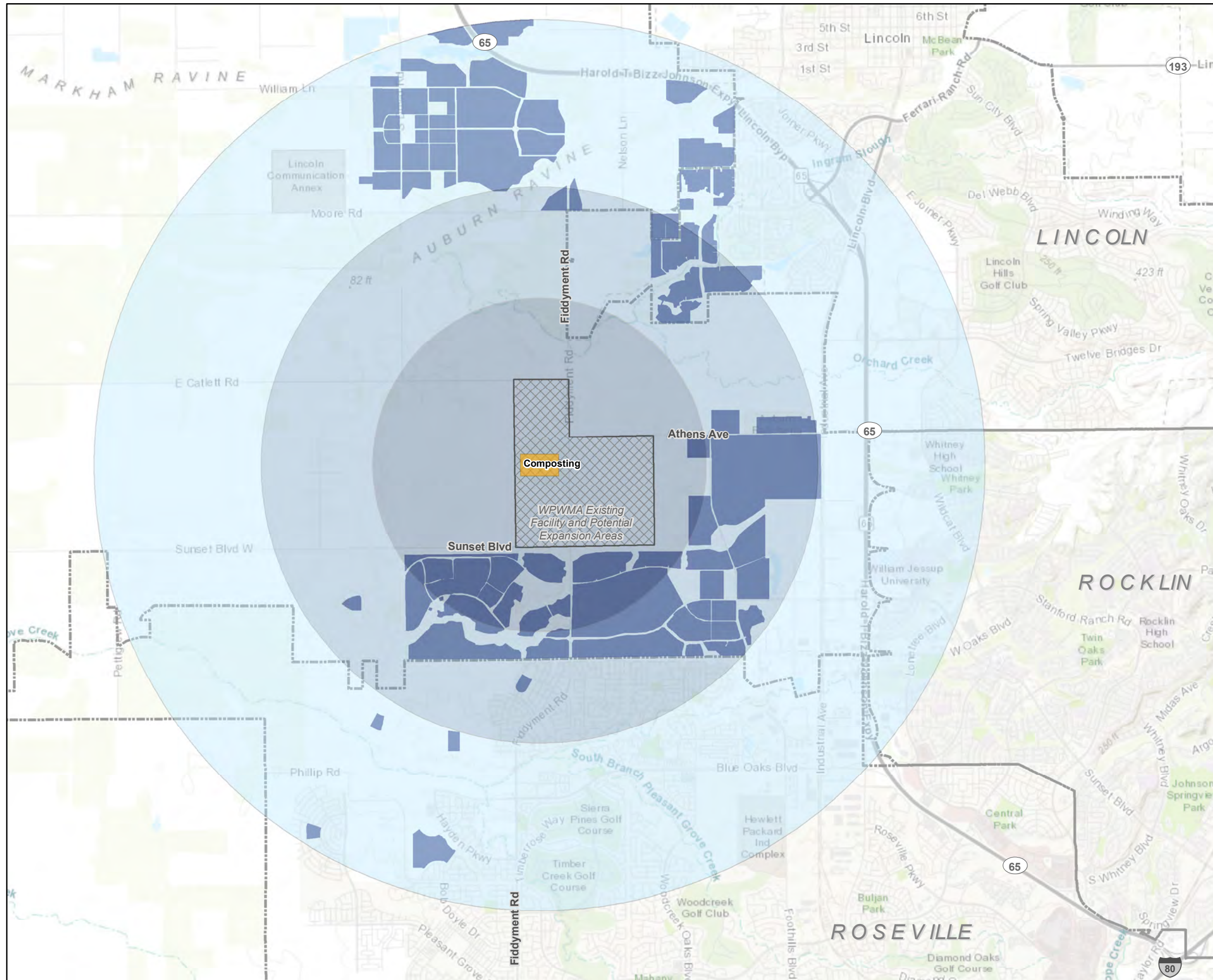


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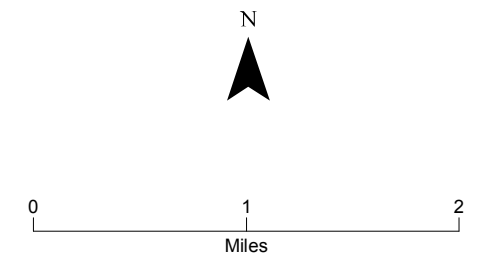
**Plan Concept 1: Compost Existing Sensitive Receptors and Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and Performance Measures  
 WPWMA, Placer County, California







- LEGEND**
- WPWMA Project Area
  - Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
- 0 - 1.5 miles
  - 1.5 - 2.5 miles
  - 2.5 - 4 miles
- Plan Concept 1**
- Critical Element
  - Compost Footprint Centroid

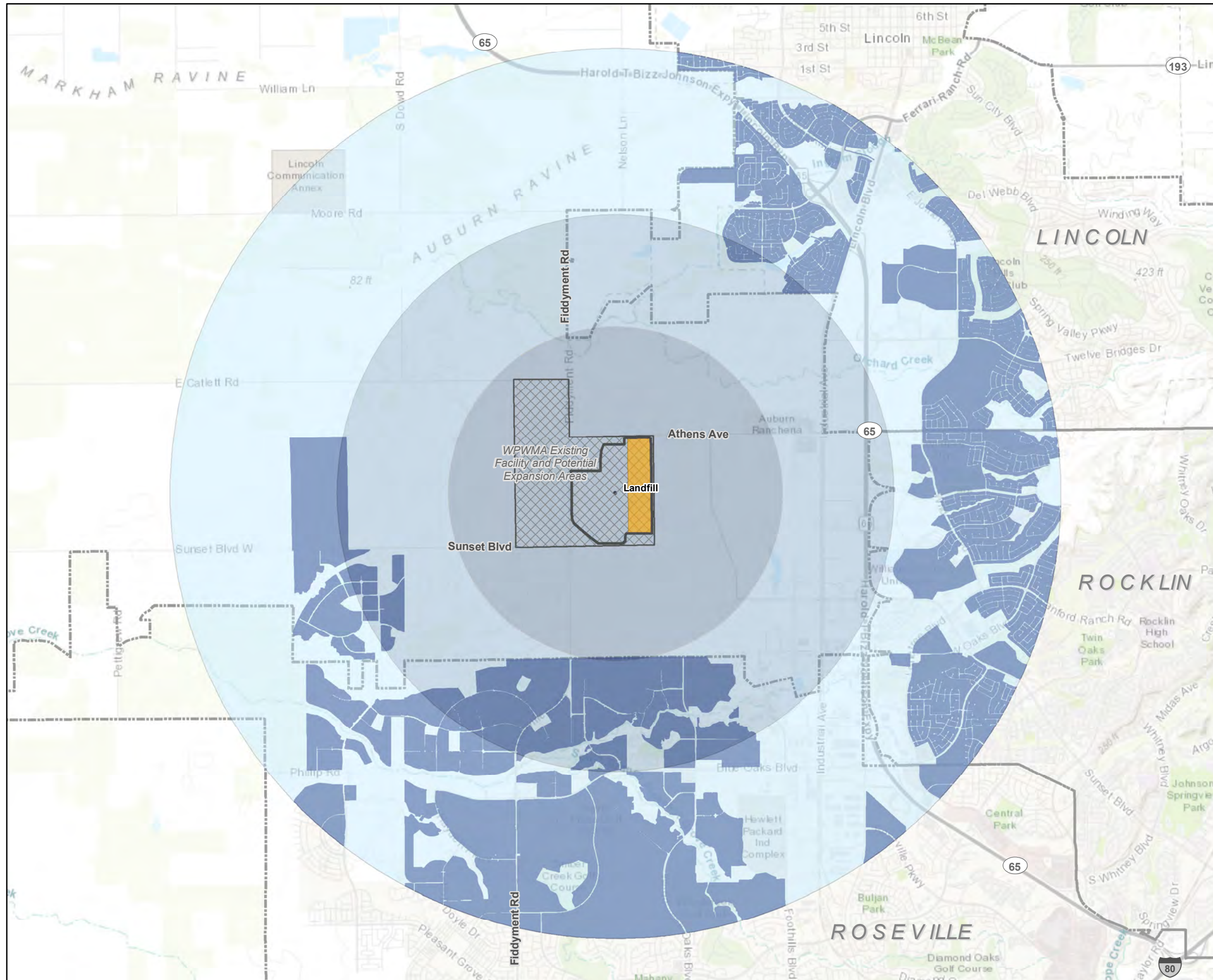


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**Plan Concept 1: Compost  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California







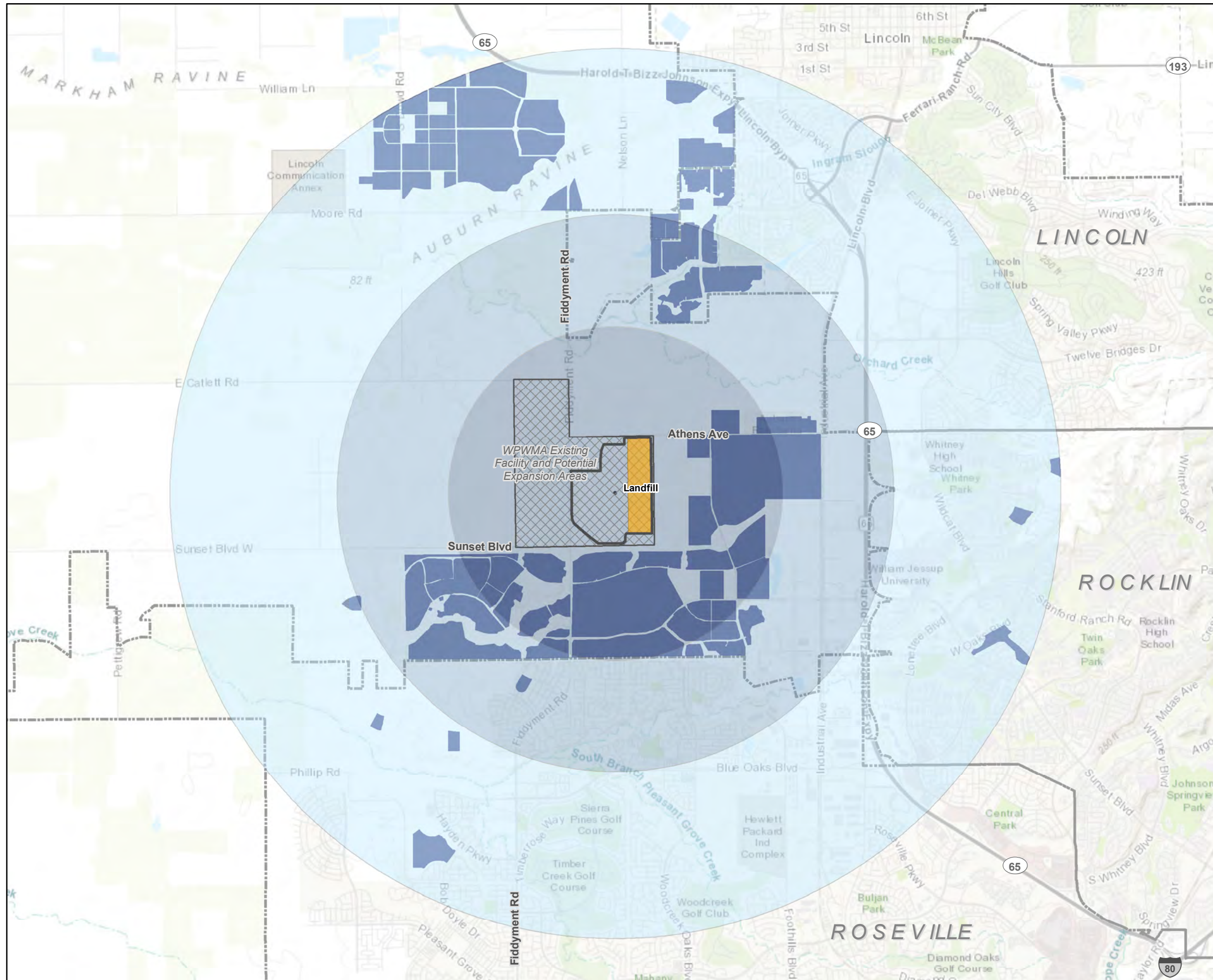
- LEGEND**
- WPWMA Project Area
  - Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
- 0 - 1.5 miles
  - 1.5 - 2.5 miles
  - 2.5 - 4 miles
- Plan Concept 1**
- Critical Element
  - Overall Landfill Footprint
  - Landfill Footprint Centroid

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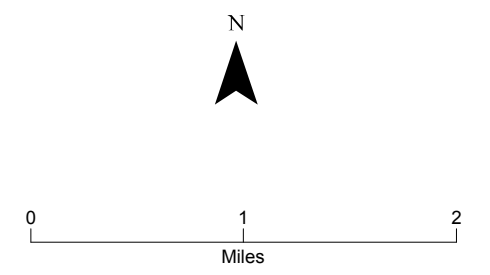
**Plan Concept 1: Landfill**  
**Existing Sensitive Receptors and**  
**Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and  
 Performance Measures  
 WPWMA, Placer County, California







- LEGEND**
- WPWMA Project Area
  - Potential Sensitive Receptor Land Use Area
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- 0 - 1.5 miles
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- Plan Concept 1**
- Critical Element
  - Overall Landfill Footprint
  - Landfill Footprint Centroid

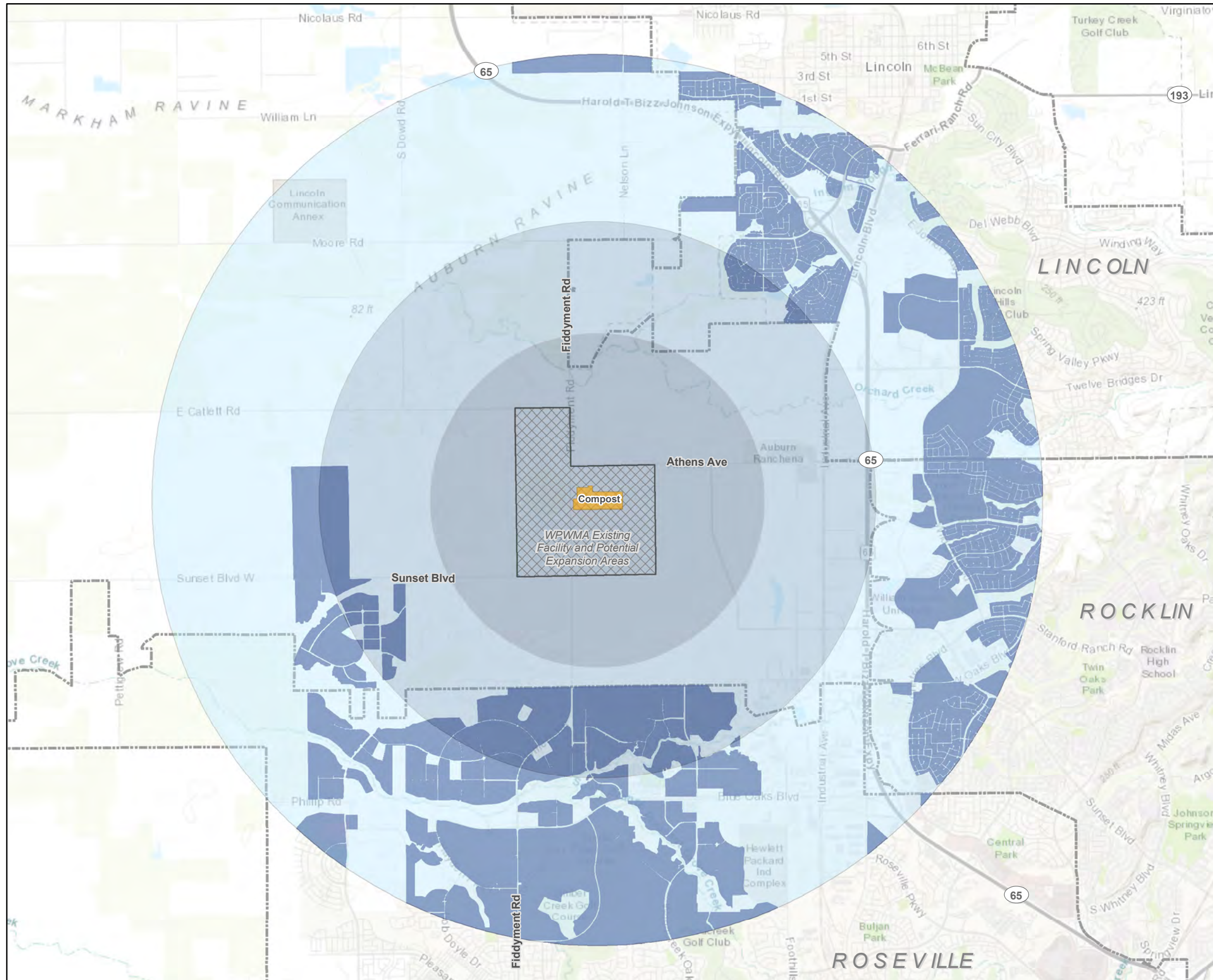









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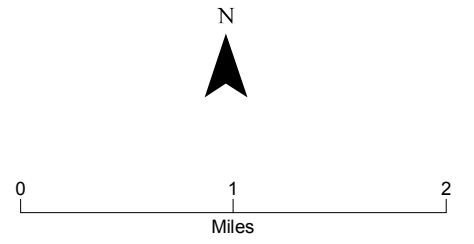
**Plan Concept 1: Landfill  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California







- LEGEND**
-  WPWMA Project Area
  -  Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
-  0 - 1.5 miles
  -  1.5 - 2.5 miles
  -  2.5 - 4 miles
- Plan Concept 2**
-  Critical Element
  -  Landfill Footprint Centroid

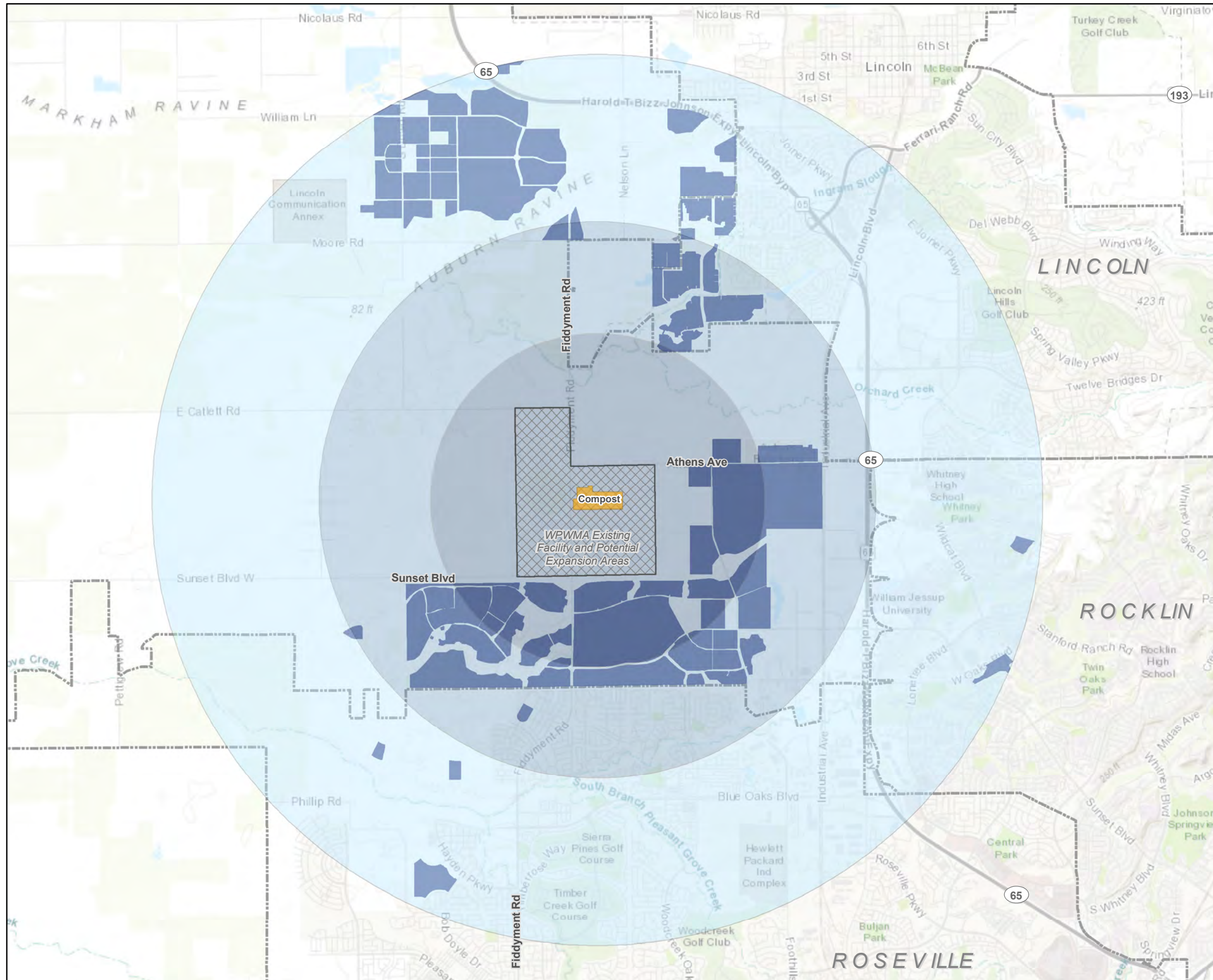


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**Plan Concept 2: Compost**  
**Existing Sensitive Receptors and**  
**Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and  
 Performance Measures  
 WPWMA, Placer County, California







**LEGEND**

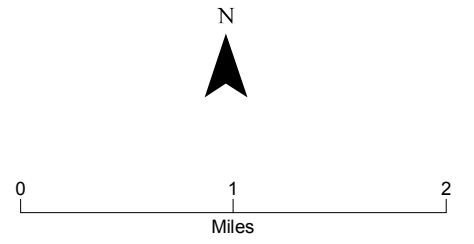
- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area

**Sensitive Receptor Zones**

- 0 - 1.5 miles
- 1.5 - 2.5 miles
- 2.5 - 4 miles

**Plan Concept 2**

- Critical Element
- Landfill Footprint Centroid

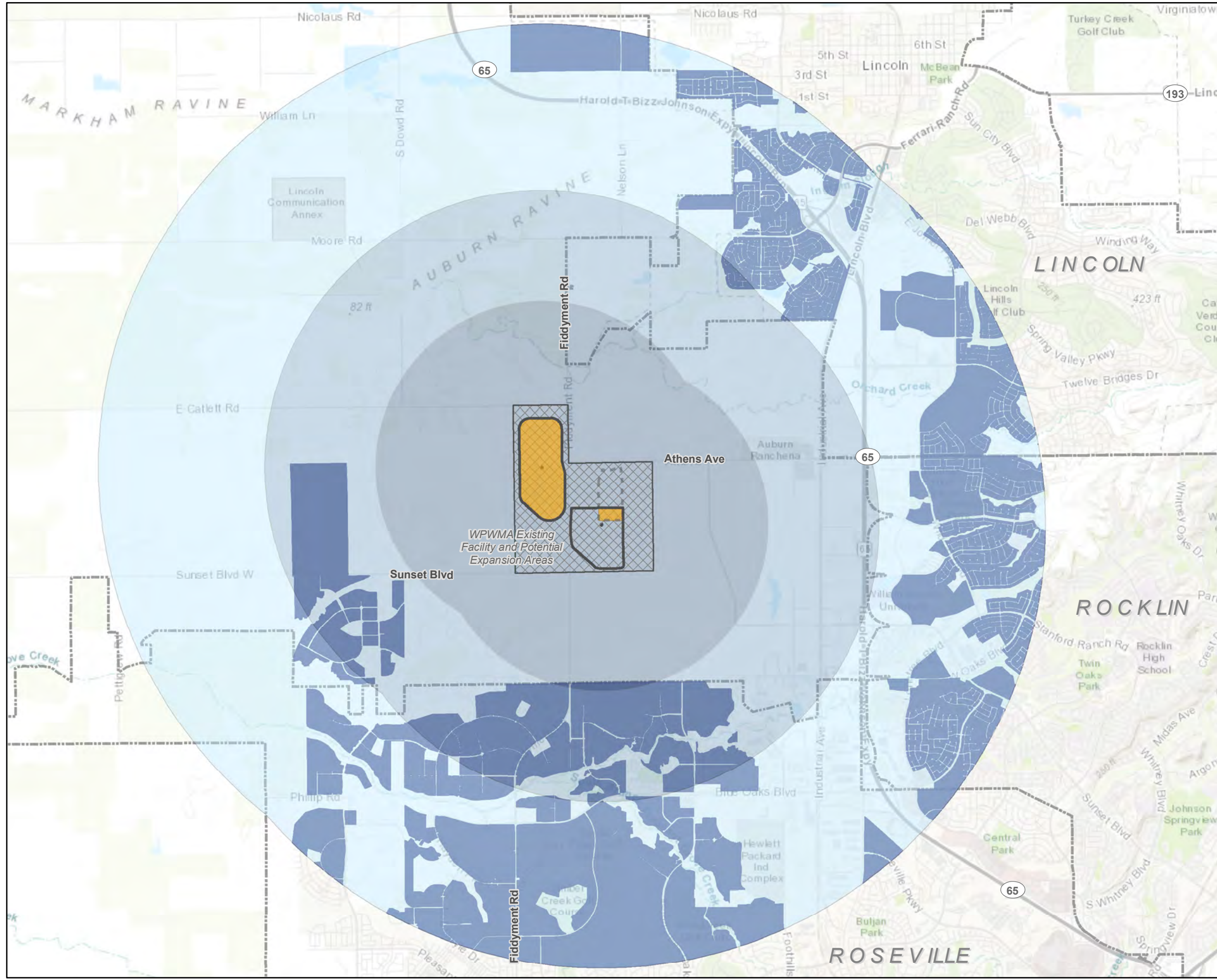


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**Plan Concept 2: Compost  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California



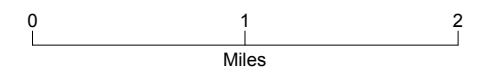




**LEGEND**

- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area
- Sensitive Receptor Zones**
  - 0 - 1.5 miles
  - 1.5 - 2.5 miles
  - 2.5 - 4 miles
- Plan Concept 2**
  - Critical Element
  - Waste Relocation Area to be Removed \*
  - Overall Landfill Footprint
  - Landfill Footprint Centroid

\*Area included in centroid calculation for zones

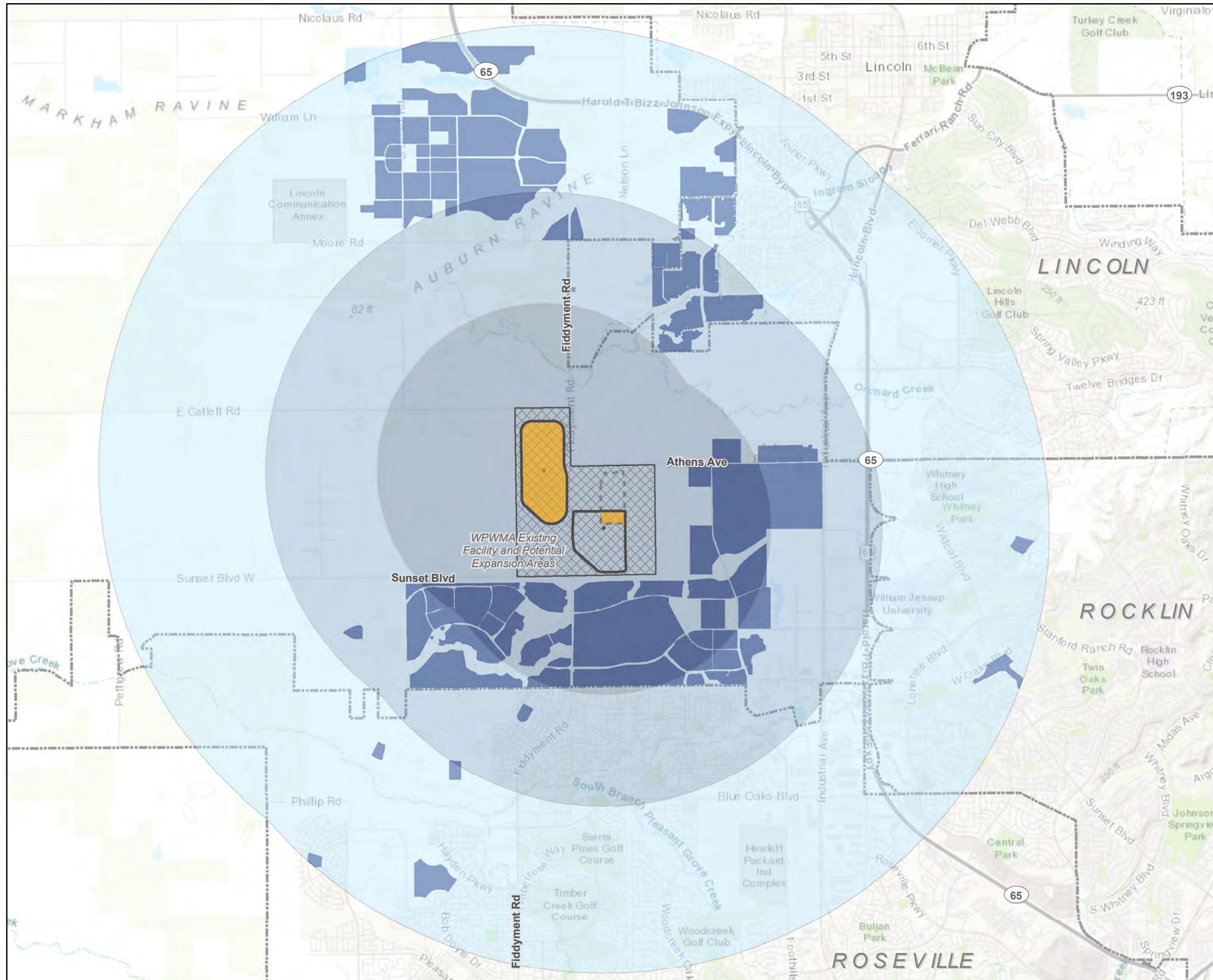


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**Plan Concept 2: Landfill**  
**Existing Sensitive Receptors and**  
**Sensitive Receptor Zones**  
 WPWMA MODA Screening Criteria and  
 Performance Measures  
 WPWMA, Placer County, California







**LEGEND**

- WPWMA Project Area
- Potential Sensitive Receptor Land Use Area

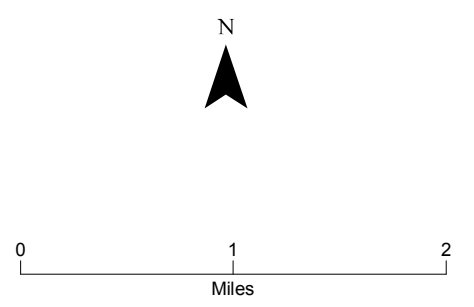
**Sensitive Receptor Zones**

- 0 - 1.5 miles
- 1.5 - 2.5 miles
- 2.5 - 4 miles

**Plan Concept 2**

- Critical Element
- Waste Relocation Area to be Removed \*
- Overall Landfill Footprint
- Landfill Footprint Centroid

\*Area included in centroid calculation for zones



**DRAFT**

**Plan Concept 2: Landfill  
Planned Sensitive Receptors and  
Sensitive Receptor Zones**  
WPWMA MODA Screening Criteria and  
Performance Measures  
WPWMA, Placer County, California





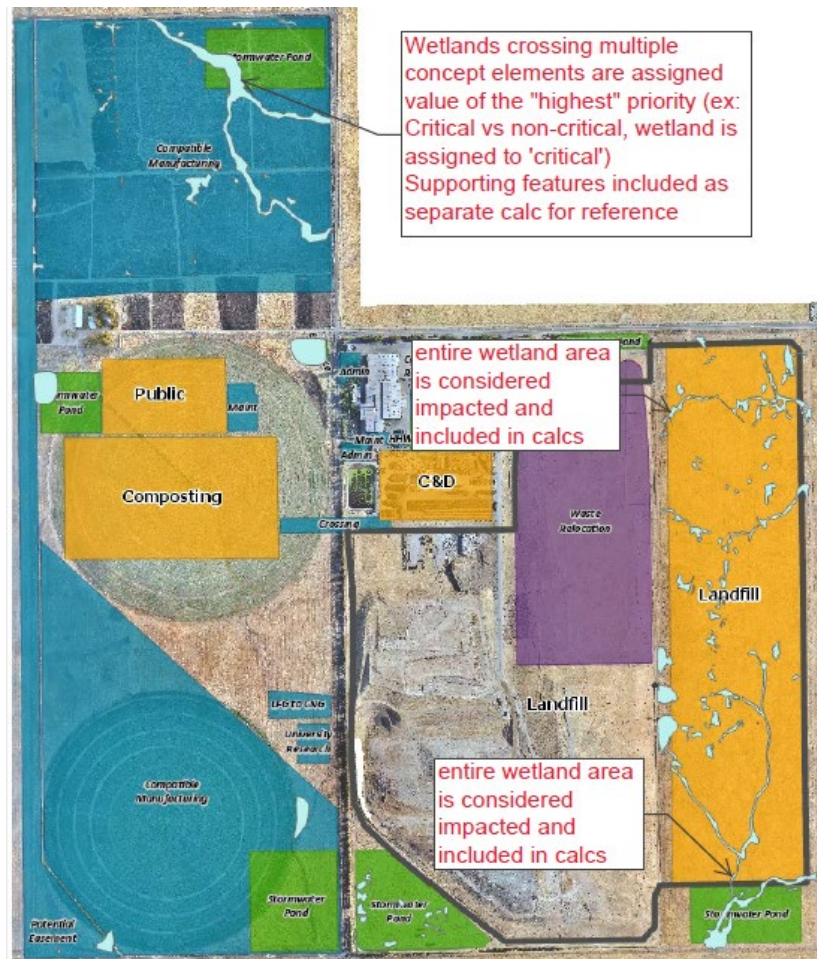
### 3B.2 Wetlands Impacts

Wetlands Impacts is the shortened name for criteria 2. The full name is “Minimizes environmental impacts to wetlands or vernal pools.” As shown below, there are two subcriteria for this criterion. This criterion is linked to the project goal of “Enhance operational compatibility with current and future neighboring land uses.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
2	<b>Minimizes environmental impacts to wetlands or vernal pools. Acreage of potential environmental impacts to wetlands or vernal pools that will be impacted on the Eastern or Western properties in two categories (critical and non-critical elements).</b>	
2a	<b>Critical facility elements (including necessary supporting elements):</b> Acres of potential environmental impacts (as defined above).	Acres
2b	<b>Non-critical facility elements:</b> Acres of potential environmental impacts (as defined above).	Acres

Acreages for wetlands impacted by critical and non-critical facility elements were determined using the GIS data and classifications included in the U.S. Army Corps of Engineers’ *Aquatic Resources Delineation Report* (submitted April 26, 2018), and include the following types of features: Agricultural Pond, Ditch, Irrigated Wetland, Seasonal Wetlands, and Swales.

Wetland impacts were calculated using an “intersect” function in GIS. The entire wetland was counted in the impact acreage calculation, not a clipped version, wherever it crossed a concept element (see below screenshot for an example of this description).



The acreages were then summarized by Element type (Critical and Supporting or Non-critical), and the wetland acreages were totaled. A summary of this data is shown below for each concept.

Concept Element	Wetland Impact Acreage	Number of Wetlands Impacts
<b>Concept 0</b>		
Critical	0.000	0
Non-critical	0.000	0
<i>Supporting</i>	<i>0.940</i>	<i>20</i>
<b>Concept 1</b>		
Critical	10.981	65
Non-critical	9.274	83
<i>Supporting</i>	<i>2.332</i>	<i>24</i>
<b>Concept 2</b>		
Critical	7.520	49
Non-critical	12.140	79
<i>Supporting</i>	<i>1.520</i>	<i>43</i>

These acreages and the resulting scores and rationale are summarized in the table at the beginning of this appendix.

### 3B.3 Cultural Resource Impacts

Cultural Resource Impacts is the shortened name for criteria 3. The full name is “Minimizes impacts to areas of cultural significance.” As shown below, there are two subcriteria for this criterion. This criterion is linked to the project goal of “Enhance operational compatibility with current and future neighboring land uses.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
<b>3</b>	<b><i>Minimizes impacts to areas of cultural significance. Number of identified potential historic or cultural impacts on the Eastern or Western properties in two categories (critical and non-critical elements).</i></b>	
3a	<b>Critical facility elements (including necessary supporting elements):</b> Number of identified potential historic or cultural impacts (as defined above).	Count
3b	<b>Non-critical facility elements:</b> Number of identified potential historic or cultural impacts (as defined above).	Count

No cultural resource impacts were identified for any of the Plan Concepts based on a desktop review that was prepared (per the Technical Memorandum submitted on January 30, 2018). Based on this desktop review, the potential for historic period resources is moderate because of long-term agricultural use of the area.

The resulting scores and rationale are summarized in the table at the beginning of this appendix.

### 3B.4 Offsite Vehicle Impacts

Offsite Vehicle Impacts is the shortened name for criteria 4. The full name is “Minimizes offsite traffic impacts (air emissions, traffic impacts, and wear and tear on roads).” As shown below, there are no

subcriteria for this criterion. This criterion is linked to the project goal of “Enhance operational compatibility with current and future neighboring land uses.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
4	<i>Minimizes offsite traffic impacts (air emissions, traffic impacts, and wear and tear on roads). Measure based on estimated round-trip trucks needed for offsite disposal based on the waste forecast through the years requiring disposal.</i>	Trucks

This criterion was measured based on the estimated total truck trips required for offsite disposal through the project period. The general steps for this calculation are outlined as follows (working calculations are contained in “Combined landfill life and waste stream projections file 102218a.xls”):

- Calculated the total tons of material that would be disposed offsite for each Plan Concept
  - Plan Concept 0: Sum of Disposed Tons from Year 31 through Year 91
  - Plan Concept 1: Sum of Disposed Tons in Year 91
  - Plan Concept 2: Sum of Disposed Tons from Year 71 through Year 91
- Assumed that there would be 20 tons per truck trip.
- Calculated the truck trips for each Plan Concept by dividing the Total Tons Disposed Offsite by 20 tons per truck trip.

This data is summarized below as well as in the summary MODA table at the beginning of this appendix.

Plan Concept	Transport Starts (after year)	Total Tons Disposed Offsite	Truck Trips
Plan Concept 0	30	39,376,346	1,968,817
Plan Concept 1	90	856,958	42,848
Plan Concept 2	70	16,321,231	816,062

### 3B.5 Disposal and Diversion Capacity

Disposal and Diversion Capacity is the shortened name for criteria 5. The full name is “Addressed disposal and diversion capacity.” As shown below, there are no subcriteria for this criterion. This criterion is linked to the following project goals:

- Ensure compliance with expanding regulations.
- Increase facility recycling and landfill diversion.
- Provide capacity to support current and future population and development.
- Provide a safeguard for future generations by maintaining local control and stable rates.

ID #	Screening Criteria and Subcriteria	Measurement Scale
5	<i>Addresses disposal and diversion capacity: Provides onsite capacity and expansion area to support current and anticipated compost, C&amp;D, and landfill needs of the current and future population and development.</i>	Years of landfill

Each Plan Concept was evaluated on its ability to provide onsite capacity and expansion area to support current and anticipated compost, C&D, and landfill needs of the current and future population and development. All three Plan Concepts provide the same composting and C&D capacity within the 25-year design time frame for those elements. Therefore, the score focused on the differentiator between the concepts: landfill life.

Plan Concept	Landfill Life (years)
Plan Concept 0	30
Plan Concept 1	90
Plan Concept 2	70

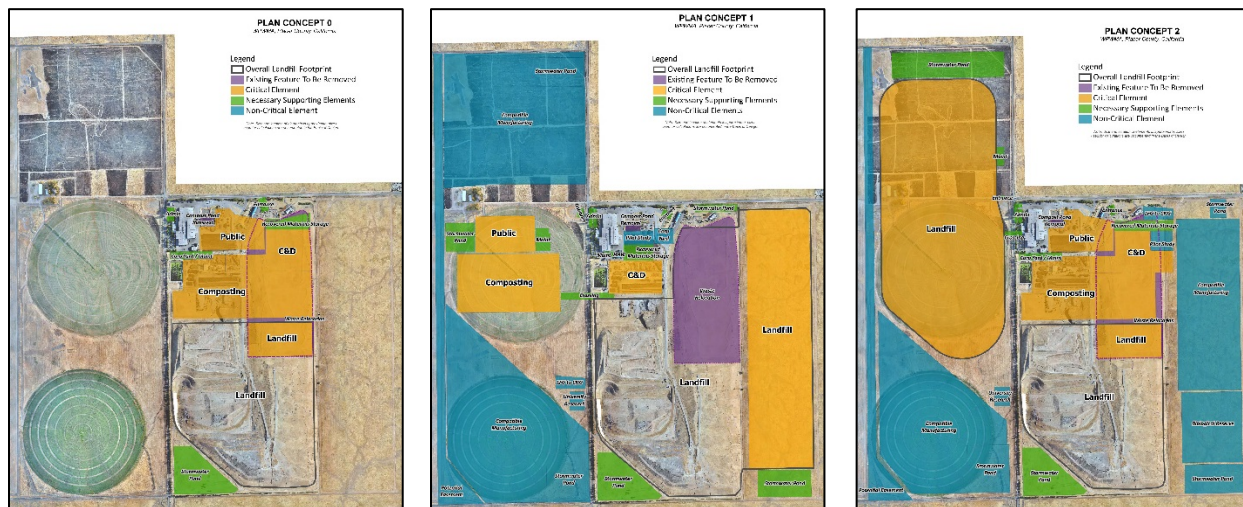
The resulting scores and rationale are summarized in the table above as well as in the summary table at the beginning of this appendix.

### 3B.6 Opportunities for Industrial Innovation

Opportunities for Industrial Innovation is the shortened name for criteria 6. The full name is “Creates opportunities for industrial innovation and economic growth.” As shown below, there are no subcriteria for this criterion. This criterion is one of the specific project goals.

ID #	Screening Criteria and Subcriteria	Measurement Scale
6	<b>Creates opportunities for industrial innovation and economic growth. Acres reserved for potential compatible manufacturing. Reflecting the potential to create opportunities for industrial innovation and economic growth, including land for growth and availability or readily upgradable utility connections.</b>	<b>Acres for industrial innovation</b>

Each of the Plan Concepts was evaluated for its ability to provide these opportunities, specifically by the acres that were set aside for industrial innovation. Potential industrial innovation included the following project elements: University Research, Pilot Study, LFG to CNG, and Compatible Manufacturing (see blue elements below).



Plan Concept 0 does not include any opportunities for industrial innovation. Plan Concepts 1 and 2 provided equal opportunities for all project elements listed above except Compatible Manufacturing. Because Compatible Manufacturing was the differentiator, the total acres assigned to that type of project element were used as the score, and were as follows:

- Plan Concept 0 = 0
- Plan Concept 1 = 259
- Plan Concept 2 = 172



The resulting scores and rationale are summarized in the summary table at the beginning of this appendix.

### 3B.7 Traffic and Material Flow

Traffic and Material Flow is the shortened name for criteria 7. The full name is “Optimizes onsite traffic and material flow.” As shown below, there are three subcriteria for this criterion. These characteristics are linked to the project goal of “Enhance operational compatibility with current and future neighboring land uses.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
7	<i>Optimizes onsite traffic and material flow. Rated on a 1-to-5 scale the reflecting degree to which the planned concept improves separation of public, commercial, and operational traffic; provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents; optimizes traffic flow patterns for reduced wait times and improved customer convenience; and optimizes operational materials transport (time and related air emissions).</i>	
7a	<b>Traffic separation:</b> Onsite traffic circulation improves separation of public, commercial, and operational traffic, and provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents to enhance safety.	1-to-5 scale
7b	<b>Traffic flow:</b> Optimizes traffic flow patterns for reduced wait times and improved customer convenience.	1-to-5 scale
7c	<b>Material transport:</b> Optimizes operational materials transport (time and related air emissions).	1-to-5 scale

Each Plan Concept was measured based on the degree to which it improves separation of public, commercial, and operational traffic; provides minimal traffic congestion and impacts to risk of traffic collisions or other traffic accidents; optimizes traffic flow patterns for reduced wait times and improved customer convenience; and optimizes operational materials transport (time and related air emissions).

The three subcriteria were evaluated on a qualitative basis and were rated on a scale from 1 to 5 (with 1 being the lowest and 5 the highest rating). This evaluation was based on site observations conducted by the consulting team and additional operational knowledge obtained from other projects.

The resulting scores and rationale are summarized in the summary table at the beginning of this appendix.

### 3B.8 Flexibility for Future Operations

Flexibility for Future Operations is the shortened name for criteria 8. The full name is “Provides flexibility for future operations or infrastructure needs.” As shown below, there are no subcriteria for this criterion. This criterion is linked to the following project goals:

- Ensure compliance with expanding regulations.
- Increase facility recycling and landfill diversion.
- Provide capacity to support current and future population and development.
- Provide a safeguard for future generations by maintaining local control and stable rates.

ID #	Screening Criteria and Subcriteria	Measurement Scale
8	<i>Provides flexibility for future operations or infrastructure needs. Rated on a 1-to-5 scale the reflecting potential for space between project elements to allow for future changes including capacity needs, odor mitigation enhancements, or necessary operational changes resulting from fluctuating recycling markets while maintaining sufficient proximity to allow for efficient flow of materials.</i>	1-to-5 scale

This criterion was evaluated on a qualitative basis. Plan Concepts were rated on a scale from 1 to 5 (with 1 being the lowest and 5 the highest rating) reflecting potential for space between project elements to allow for future changes including capacity needs, odor mitigation enhancements, or necessary operational changes resulting from fluctuating recycling markets while maintaining sufficient proximity to allow for efficient flow of materials. This evaluation was based on the use of available properties, the layout of project elements within each concept, and the amount of unused space around those elements for future changes.

Plan Concept 0 provided the least flexibility, and Plan Concept 1 provided the most flexibility, followed by Plan Concept 2. The resulting scores and rationale are summarized in the summary table at the beginning of this appendix.

**3B.9 External Financing**

External Financing is the shortened name for criteria 9. The full name is “Minimizes external financing.” As shown below, there are no subcriteria for this criterion. This criterion is linked to the project goal of “Provide a safeguard for future generations by maintaining local control and stable rates.”

ID #	Screening Criteria and Subcriteria	Measurement Scale
9	<i>Minimizes external financing. Total capital cost in first 5 years; reflecting degree that concept may require external financing (for large capital expenditures) in the first 5 years.</i>	<i>Total Capital Cost (\$) in first 5 years</i>

The total capital costs estimated for the first 5 years were determined for each Plan Concept. Additional details on the capital costs can be found in the Economic Analysis sections. The resulting scores and rationale are summarized in the summary table at the beginning of this appendix.

**Appendix 3C**  
**MODA Weighting Percentages**

## Appendix 3C. MODA Weighting Percentages

### AC Weights Only

Renewable Placer: Waste Action Plan		
Determine optimal concept layout for Renewable Placer: Waste Action Plan		
ID#	Evaluation Criteria	AC
<b>1</b>	<b>Sensitive Receptors</b>	<b>16%</b>
1.1	Sensitive Receptors - Zone 1	6%
1.2	Sensitive Receptors - Zone 2	5%
1.3	Sensitive Receptors Zone 3	5%
<b>2</b>	<b>Wetland Impacts</b>	<b>3%</b>
2.1	Wetland - Critical Elements	2%
2.2	Wetland - Non-Critical Elements	1%
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>4%</b>
3.1	Cultural Resource Impacts - Critical Elements	2%
3.2	Cultural Resource Impacts - Non-Critical Elements	1%
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>9%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>19%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>11%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>9%</b>
7.1	Traffic Separation	4%
7.2	Traffic Flow	2%
7.3	Material Flow	3%
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>14%</b>
<b>9</b>	<b>External Financing</b>	<b>15%</b>

### WPWMA Staff Weights Only

Renewable Placer: Waste Action Plan		
Determine optimal concept layout for Renewable Placer: Waste Action Plan		
ID#	Evaluation Criteria	WS
<b>1</b>	<b>Sensitive Receptors</b>	<b>16%</b>
1.1	Sensitive Receptors - Zone 1	7%
1.2	Sensitive Receptors - Zone 2	6%
1.3	Sensitive Receptors Zone 3	4%
<b>2</b>	<b>Wetland Impacts</b>	<b>4%</b>
2.1	Wetland - Critical Elements	3%
2.2	Wetland - Non-Critical Elements	2%
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>3%</b>
3.1	Cultural Resource Impacts - Critical Elements	2%
3.2	Cultural Resource Impacts - Non-Critical Elements	1%
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>12%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>16%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>12%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>13%</b>
7.1	Traffic Separation	4%
7.2	Traffic Flow	5%
7.3	Material Flow	3%
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>15%</b>
<b>9</b>	<b>External Financing</b>	<b>9%</b>

### Proximate Stakeholders

Renewable Placer: Waste Action Plan		
Determine optimal concept layout for Renewable Placer: Waste Action Plan		
ID#	Evaluation Criteria	PRX
<b>1</b>	<b>Sensitive Receptors</b>	<b>38%</b>
1.1	Sensitive Receptors - Zone 1	13%
1.2	Sensitive Receptors - Zone 2	13%
1.3	Sensitive Receptors Zone 3	13%
<b>2</b>	<b>Wetland Impacts</b>	<b>2%</b>
2.1	Wetland - Critical Elements	1%
2.2	Wetland - Non-Critical Elements	1%
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>2%</b>
3.1	Cultural Resource Impacts - Critical Elements	1%
3.2	Cultural Resource Impacts - Non-Critical Elements	1%
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>4%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>19%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>15%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>2%</b>
7.1	Traffic Separation	1%
7.2	Traffic Flow	1%
7.3	Material Flow	1%
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>8%</b>
<b>9</b>	<b>External Financing</b>	<b>11%</b>

### Odor Potential (Sensitive Receptors Only)

Renewable Placer: Waste Action Plan		
Determine optimal concept layout for Renewable Placer: Waste Action Plan		
ID#	Evaluation Criteria	SR
<b>1</b>	<b>Sensitive Receptors</b>	<b>100%</b>
1.1	Sensitive Receptors - Zone 1	33%
1.2	Sensitive Receptors - Zone 2	33%
1.3	Sensitive Receptors Zone 3	33%
<b>2</b>	<b>Wetland Impacts</b>	<b>0%</b>
2.1	Wetland - Critical Elements	Invalid
2.2	Wetland - Non-Critical Elements	Invalid
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>0%</b>
3.1	Cultural Resource Impacts - Critical Elements	Invalid
3.2	Cultural Resource Impacts - Non-Critical Elements	Invalid
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>0%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>0%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>0%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>0%</b>
7.1	Traffic Separation	Invalid
7.2	Traffic Flow	Invalid
7.3	Material Flow	Invalid
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>0%</b>
<b>9</b>	<b>External Financing</b>	<b>0%</b>

### Operational Focus Scenario

**Renewable Placer: Waste Action Plan**  
 Determine optimal concept layout for Renewable Placer: Waste Action Plan

ID#	Evaluation Criteria	OPS
<b>1</b>	<b>Sensitive Receptors</b>	<b>5%</b>
1.1	Sensitive Receptors - Zone 1	2%
1.2	Sensitive Receptors - Zone 2	2%
1.3	Sensitive Receptors Zone 3	2%
<b>2</b>	<b>Wetland Impacts</b>	<b>1%</b>
2.1	Wetland - Critical Elements	1%
2.2	Wetland - Non-Critical Elements	1%
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>1%</b>
3.1	Cultural Resource Impacts - Critical Elements	1%
3.2	Cultural Resource Impacts - Non-Critical Elements	1%
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>3%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>26%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>13%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>23%</b>
7.1	Traffic Separation	5%
7.2	Traffic Flow	9%
7.3	Material Flow	10%
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>25%</b>
<b>9</b>	<b>External Financing</b>	<b>3%</b>

### Financial Focus Scenario

**Renewable Placer: Waste Action Plan**  
 Determine optimal concept layout for Renewable Placer: Waste Action Plan

ID#	Evaluation Criteria	FIN
<b>1</b>	<b>Sensitive Receptors</b>	<b>8%</b>
1.1	Sensitive Receptors - Zone 1	3%
1.2	Sensitive Receptors - Zone 2	3%
1.3	Sensitive Receptors Zone 3	3%
<b>2</b>	<b>Wetland Impacts</b>	<b>8%</b>
2.1	Wetland - Critical Elements	4%
2.2	Wetland - Non-Critical Elements	4%
<b>3</b>	<b>Cultural Resource Impacts</b>	<b>8%</b>
3.1	Cultural Resource Impacts - Critical Elements	4%
3.2	Cultural Resource Impacts - Non-Critical Elements	4%
<b>4</b>	<b>Offsite Vehicle Impact</b>	<b>8%</b>
<b>5</b>	<b>Disposal and Diversion Capacity</b>	<b>8%</b>
<b>6</b>	<b>Opportunities for Industrial Innovation</b>	<b>8%</b>
<b>7</b>	<b>Traffic and Material Flow</b>	<b>8%</b>
7.1	Traffic Separation	3%
7.2	Traffic Flow	3%
7.3	Material Flow	3%
<b>8</b>	<b>Flexibility for Future Operations</b>	<b>8%</b>
<b>9</b>	<b>External Financing</b>	<b>38%</b>

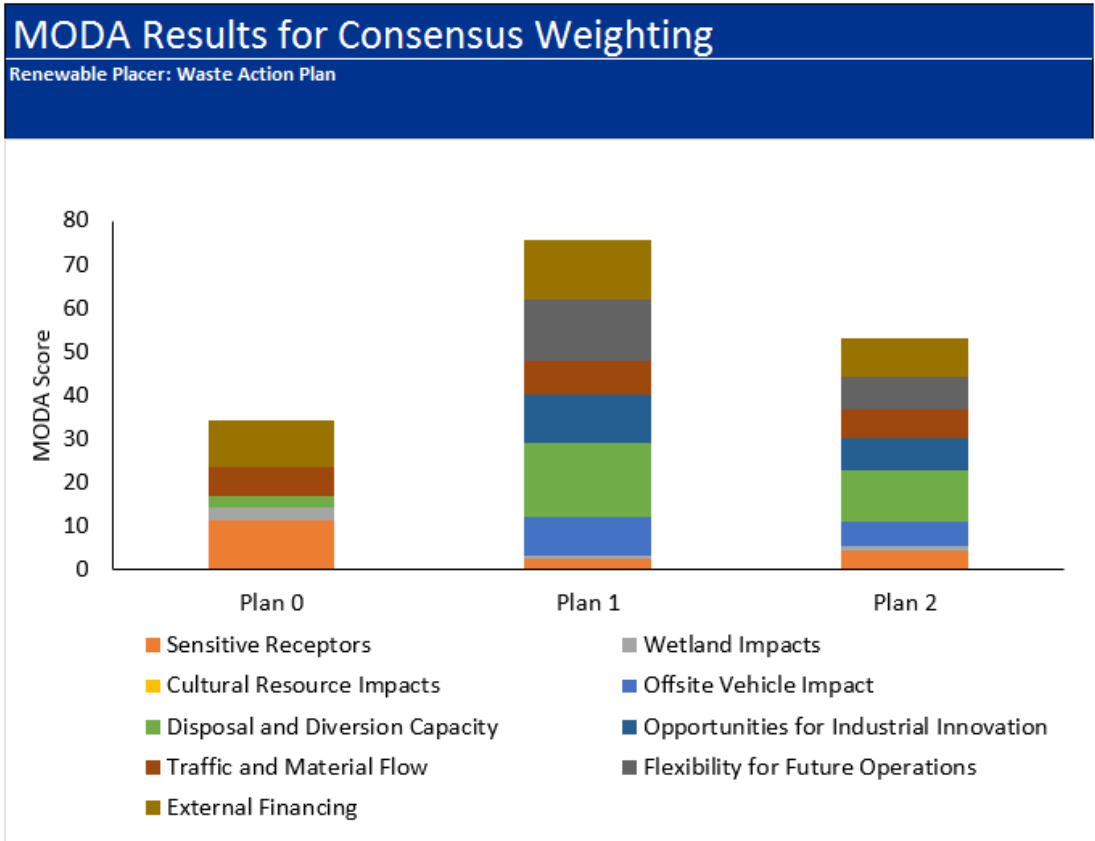
**Appendix 3D**  
**MODA Scores**

## Appendix 3D. MODA Scores

Note that the term “Consensus Weighting” in the MODA tool means the average weight calculated for the specific weighting group, such as the Advisory Committee or WPWMA staff.

### AC Weights Only

<b>Results for Consensus Weighting</b>				
<b>Renewable Placer: Waste Action Plan</b>				
ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>34.4</b>	<b>75.8</b>	<b>53.0</b>
1	Sensitive Receptors	11.4	2.6	4.3
2	Wetland Impacts	2.9	0.8	1.2
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.1	8.9	5.4
5	Disposal and Diversion Capacity	2.4	16.9	12.1
6	Opportunities for Industrial Innovation	0.0	10.9	7.2
7	Traffic and Material Flow	6.5	7.8	6.9
8	Flexibility for Future Operations	0.0	14.2	7.1
9	External Financing	11.0	13.7	8.9



WPWMA Staff Weights Only

### Results for Consensus Weighting

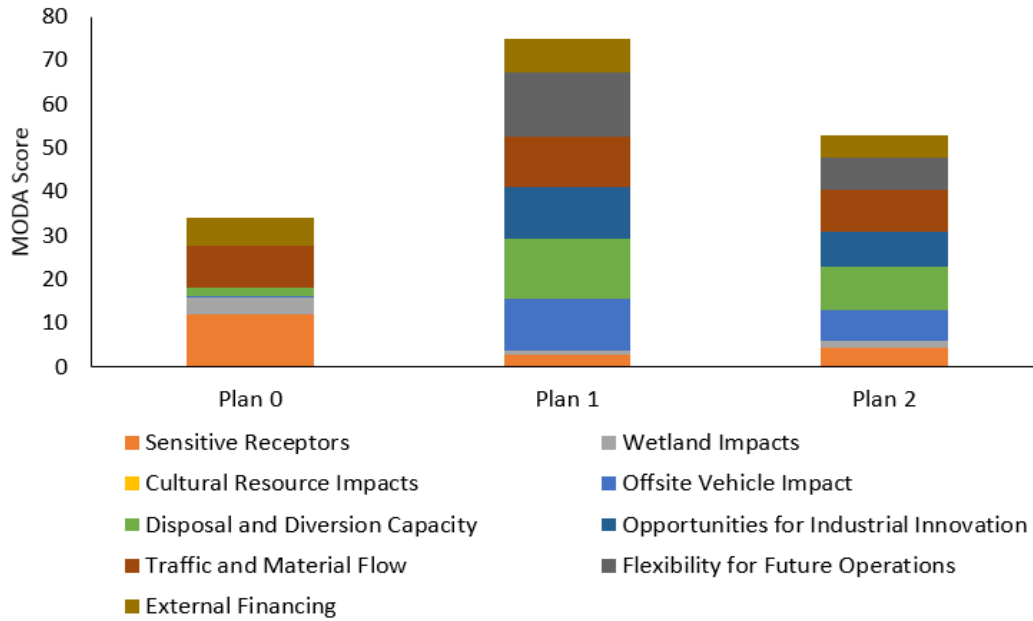
Renewable Placer: Waste Action Plan

ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>33.9</b>	<b>75.1</b>	<b>52.9</b>
1	Sensitive Receptors	11.9	2.6	4.2
2	Wetland Impacts	4.0	1.1	1.6
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.2	11.7	7.1
5	Disposal and Diversion Capacity	2.0	14.0	10.0
6	Opportunities for Industrial Innovation	0.0	11.8	7.8
7	Traffic and Material Flow	9.6	11.4	9.8
8	Flexibility for Future Operations	0.0	14.7	7.4
9	External Financing	6.3	7.8	5.1



## MODA Results for Consensus Weighting

Renewable Placer: Waste Action Plan



### Odor Potential

## Results for Consensus Weighting

Renewable Placer: Waste Action Plan

ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>72.6</b>	<b>17.1</b>	<b>28.4</b>
1	Sensitive Receptors	72.6	17.1	28.4
2	Wetland Impacts	0.0	0.0	0.0
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.0	0.0	0.0
5	Disposal and Diversion Capacity	0.0	0.0	0.0
6	Opportunities for Industrial Innovation	0.0	0.0	0.0
7	Traffic and Material Flow	0.0	0.0	0.0
8	Flexibility for Future Operations	0.0	0.0	0.0
9	External Financing	0.0	0.0	0.0

Proximate Stakeholders

Results for Consensus Weighting				
Renewable Placer: Waste Action Plan				
ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>41.2</b>	<b>61.7</b>	<b>47.4</b>
1	Sensitive Receptors	27.4	6.4	10.7
2	Wetland Impacts	1.8	0.6	0.7
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.1	3.8	2.3
5	Disposal and Diversion Capacity	2.4	16.5	11.8
6	Opportunities for Industrial Innovation	0.0	15.1	10.0
7	Traffic and Material Flow	1.4	1.6	1.4
8	Flexibility for Future Operations	0.0	7.5	3.8
9	External Financing	8.2	10.2	6.6

Operational Focus Scenario

Results for Consensus Weighting				
Renewable Placer: Waste Action Plan				
ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>28.9</b>	<b>85.1</b>	<b>59.8</b>
1	Sensitive Receptors	3.8	0.9	1.5
2	Wetland Impacts	1.3	0.4	0.5
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.0	2.6	1.6
5	Disposal and Diversion Capacity	3.2	22.7	16.2
6	Opportunities for Industrial Innovation	0.0	13.0	8.6
7	Traffic and Material Flow	18.8	18.5	17.5
8	Flexibility for Future Operations	0.0	24.7	12.3
9	External Financing	1.9	2.3	1.5

**Financial Focus Scenario**

<b>Results for Consensus Weighting</b>				
<b>Renewable Placer: Waste Action Plan</b>				
ID#	Evaluation Criteria	Plan 0	Plan 1	Plan 2
		Plan Concept 0 - Existing Site Reconfigured	Plan Concept 1 - Landfill East	Plan Concept 2 - Landfill West
<b>Total Score</b>		<b>47.6</b>	<b>74.6</b>	<b>52.0</b>
1	Sensitive Receptors	5.6	1.3	2.2
2	Wetland Impacts	7.5	2.5	3.0
3	Cultural Resource Impacts	0.0	0.0	0.0
4	Offsite Vehicle Impact	0.1	7.7	4.7
5	Disposal and Diversion Capacity	1.0	6.7	4.8
6	Opportunities for Industrial Innovation	0.0	7.7	5.1
7	Traffic and Material Flow	5.8	6.4	5.8
8	Flexibility for Future Operations	0.0	7.7	3.8
9	External Financing	27.8	34.6	22.6