

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
1. Introduction	1-1
1.1 Type and Purpose of the SEIR.....	1-1
1.2 Known Responsible and Trustee Agencies	1-2
1.3 Project Summary.....	1-3
1.4 SEIR Process.....	1-4
1.5 Scope of the SEIR.....	1-5
1.6 Definition of Baseline	1-6
1.7 Significance Criteria	1-7
1.8 Notice of Preparation and Scoping.....	1-7
1.9 Comments Received on the Notice of Preparation	1-8
1.10 Draft SEIR and Public Review.....	1-10
1.11 Organization of the Draft SEIR.....	1-11
2. Executive Summary.....	2-1
2.1 Introduction	2-1
2.2 Summary Description of the Proposed Project	2-1
2.3 Environmental Impacts and Mitigation Measures	2-2
2.4 Summary of Project Alternatives	2-2
2.5 Areas of Controversy	2-6
3. Project Description.....	3-1
3.1 Introduction and Background.....	3-1
3.2 Project Location	3-2
3.3 Project Setting and Surrounding Land Uses.....	3-2
3.4 Project Objectives	3-5
3.5 Project Components.....	3-5
3.6 Project Approvals	3-16
4. Existing Environmental Setting, Impacts, and Mitigation	
<u>4.0 Introduction to the Analysis</u>	<u>4.0-1</u>
4.0.1 Introduction	4.0-1
4.0.2 Determination of Significance.....	4.0-1
4.0.3 Environmental Issues Addressed in this SEIR.....	4.0-2
4.0.4 Chapter Format.....	4.0-2
<u>4.1 Aesthetics</u>	<u>4-1</u>
4.1.1 Introduction	4.1-1



CHAPTER		PAGE
4.1.2	Existing Environmental Setting.....	4.1-3
4.1.3	Regulatory Context	4.1-11
4.1.4	Impacts and Mitigation Measures.....	4.1-13
4.2	<u>Air Quality, Greenhouse Gas Emissions, and Energy</u>.....	4.2-1
4.2.1	Introduction	4.2-1
4.2.2	Existing Environmental Setting.....	4.2-1
4.2.3	Regulatory Context	4.2-17
4.2.4	Impacts and Mitigation Measures.....	4.2-33
4.3	<u>Biological Resources</u>.....	4.3-1
4.3.1	Introduction	4.3-1
4.3.2	Existing Environmental Setting.....	4.3-1
4.3.3	Regulatory Context	4.3-28
4.3.4	Impacts and Mitigation Measures.....	4.3-37
4.4	<u>Noise</u>	4.4-1
4.4.1	Introduction	4.4-1
4.4.2	Existing Environmental Setting.....	4.4-1
4.4.3	Regulatory Context	4.4-9
4.4.4	Impacts and Mitigation Measures.....	4.4-13
4.5	<u>Public Services and Utilities</u>.....	4.5-1
4.5.1	Introduction	4.5-1
4.5.2	Existing Environmental Setting.....	4.5-2
4.5.3	Regulatory Context	4.5-14
4.5.4	Impacts and Mitigation Measures.....	4.5-22
4.6	<u>Transportation</u>.....	4.6-1
4.6.1	Introduction	4.6-1
4.6.2	Existing Environmental Setting.....	4.6-1
4.6.3	Regulatory Context	4.6-11
4.6.4	Impacts and Mitigation Measures.....	4.6-18
4.7	<u>Other Effects</u>.....	4.7-1
4.7.1	Introduction	4.7-1
4.7.2	Agriculture and Forestry Resources	4.7-1
4.7.3	Cultural Resources.....	4.7-5
4.7.4	Geology and Soils.....	4.7-7
4.7.5	Hazards and Hazardous Materials	4.7-9
4.7.6	Hydrology and Water Quality.....	4.7-12
4.7.7	Land Use and Planning	4.7-16
4.7.8	Mineral Resources	4.7-18
4.7.9	Noise.....	4.7-19



<u>CHAPTER</u>	<u>PAGE</u>
4.7.10 Population and Housing	4.7-20
5. Statutorily Required Sections.....	5-1
5.1 Introduction	5-1
5.2 Growth-Inducing Impacts	5-1
5.3 Cumulative Impacts.....	5-4
5.4 Significant Irreversible Environmental Changes	5-6
5.5 Significant and Unavoidable Impacts.....	5-6
6. Alternatives Analysis.....	6-1
6.1 Introduction	6-1
6.2 Purpose of Alternatives	6-1
6.3 Selection of Alternatives.....	6-11
6.4 Environmentally Superior Alternative.....	6-31
7. References	7-1
8. EIR Authors and Persons Consulted	8-1

Appendices

Appendix A	Notice of Preparation (NOP)
Appendix B	NOP Comment Letters
Appendix C	Air Quality and Greenhouse Gas Emissions Modeling Results
Appendix D	Biological Resources Assessment
Appendix E	Environmental Noise & Vibration Assessment
Appendix F	Water Study
Appendix G	Sewer Study
Appendix H	Transportation Impact Study
Appendix I	Geotechnical Update
Appendix J	Phase I Environmental Site Assessment and Limited Pesticide Assessment
Appendix K	Tentative Map Drainage Design Memorandum



LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
3. Project Description	
3-1 Regional Vicinity Map.....	3-3
3-2 Project Site Boundaries.....	3-4
3-3 Vesting Tentative Subdivision Map.....	3-7
3-4 Obstacle Course Layout.....	3-10
3-5 Palomino Place Cross Sections	3-12
3-6 Utilities Plan	3-14
4.1 Aesthetics	
4.1-1 Existing Northerly View of Project Site from East Covell Boulevard.....	4.1-4
4.1-2 Westerly View of Site from Wildhorse Agricultural Buffer (1 of 2)	4.1-4
4.1-3 Westerly View of Site from Wildhorse Agricultural Buffer (2 of 2)	4.1-5
4.1-4 Existing On-Site View of Gated Entrance From East Covell Boulevard ...	4.1-5
4.1-5 Existing On-Site View of Southwestern Pasture	4.1-6
4.1-6 Existing On-Site View of Southeastern Pasture.....	4.1-6
4.1-7 Existing On-Site View of Ranch Home	4.1-7
4.1-8 Existing On-Site View of Duplexes in Central Portion of Project Site	4.1-7
4.1-9 Existing On-Site View of Eastern Side of Horse Barn.....	4.1-8
4.1-10 Existing On-Site View of Wildhorse Neighborhood to the North of Project Site	4.1-8
4.1-11 Existing On-Site View of North Pasture Looking Towards Wildhorse Neighborhood.....	4.1-9
4.2 Air Quality, Greenhouse Gas Emissions, and Energy	
4.2-1 California Energy Generation by Source	4.2-16
4.2-2 California Energy Consumption by Sector.....	4.2-16
4.3 Biological Resources	
4.3-1 Study Area Evaluated Under the BRA.....	4.3-3
4.3-2 Yolo HCP/NCCP Land Cover Types	4.3-5
4.3-3 Aquatic Resources	4.3-7
4.3-4 California Natural Diversity Database Occurrences of Special-Status Plant Species	4.3-9
4.3-5 California Natural Diversity Database Occurrences of Special-Status Wildlife.....	4.3-19
4.3-6 Elderberry Shrub Locations	4.3-21



FIGURE		PAGE
4.3-7	Tree Inventory	4.3-27
4.4	Noise	
4.4-1	Noise Levels Associated with Common Noise Sources	4.4-2
4.4-2	Ambient Noise and Vibration Survey Locations	4.4-4
4.5	Public Services and Utilities	
4.5-1	DFD Drive Time Zone	4.5-4
4.5-2	Existing Park Facilities	4.5-7
4.5-3	City of Davis Water Service Area	4.5-9
4.6	Transportation	
4.6-1	Existing Roadway Facilities	4.6-3
4.6-2	Existing Bicycle Facilities	4.6-6
4.6-3	Existing Transit Facilities	4.6-9
6.	Alternatives Analysis	
6-1	Increased Density Alternative Site Plan	6-18
6-2	Reduced Density Alternative Site Plan	6-22
6-3	No Pentathlon Facility Alternative Site Plan	6-27



LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
2. Executive Summary	
2-1 Summary of Impacts and Mitigation Measures	2-7
3. Project Description	
3-1 Proposed Residential Units	3-6
4.2 Air Quality, Greenhouse Gas Emissions, and Energy	
4.2-1 Summary of Criteria Pollutants	4.2-3
4.2-2 Ambient Air Quality Standards	4.2-4
4.2-3 Attainment Status	4.2-10
4.2-4 Air Quality Data Summary (2020-2022)	4.2-11
4.2-5 GWPs and Atmospheric Lifetimes of Select GHGs	4.2-13
4.2-6 Non-residential EV Charging Station Standards	4.2-34
4.2-7 Residential EV Charging Station Standards	4.2-35
4.2-8 YSAQMD Thresholds of Significance	4.2-36
4.2-9 Maximum Unmitigated Construction Emissions	4.2-44
4.2-10 Maximum Unmitigated Operational Emissions	4.2-47
4.2-11 Maximum Unmitigated Construction GHG Emissions	4.2-62
4.2-12 Maximum Unmitigated Operational GHG Emissions	4.2-63
4.3 Biological Resources	
4.3-1 Yolo HCP/NCCP Land Cover Types Within the Study Area	4.3-4
4.3-2 Aquatic Resources Delineated Within the Study Area	4.3-6
4.3-3 Special-Status Species with Potential to Occur Within the Study Area ...	4.3-11
4.3-4 Trees Within the Study Area	4.3-29
4.3-5 Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance for Burrowing Owls	4.3-58
4.4 Noise	
4.4-1 Long-Term Ambient Noise Survey Results	4.4-5
4.4-2 Existing Traffic Noise Modeling Results	4.4-6
4.4-3 Short-Term Ambient Vibration Survey Results	4.4-9
4.4-4 Standards for Exterior Noise Exposure	4.4-11
4.4-5 Standards for Interior Noise Levels	4.4-12
4.4-6 City of Davis Municipal Code Exterior Noise Standards	4.4-13
4.4-7 Significance of Changes in Cumulative Noise Exposure (dB DNL)	4.4-15



TABLE	PAGE
4.4-8	Federal Transit Administration Criteria for Assessing Vibration Damage to Structures4.4-16
4.4-9	Construction Equipment Reference Noise Levels and Predicted Noise Levels at 25 Feet.....4.4-19
4.4-10	Predicted Traffic Noise-Level Increases at Existing Sensitive Receptors – Existing Versus Existing Plus Project Conditions.....4.4-24
4.4-11	Vibration Source Amplitudes for Construction Equipment4.4-27
4.4-12	Predicted Traffic Noise-Level Increases at Existing Sensitive Receptors – Cumulative Versus Cumulative Plus Project Conditions.....4.4-30
4.5	Public Services and Utilities
4.5-1	Davis Joint Unified School District Enrollment by Facility4.5-5
4.5-2	Projected Wholesale Surface Water Supply, AFY4.5-10
4.5-3	Projected Groundwater Supply, AFY.....4.5-11
4.5-4	2023 Unit Water Demand Factors4.5-24
4.5-5	City of Davis, 1991, Unit Wastewater Demand Factors4.5-24
4.5-6	Proposed Project Unit Wastewater Demand Factors.....4.5-25
4.5-7	Potable Water Demand4.5-35
4.5-8	Daily Peak Wet Weather Flows (gpd).....4.5-36
4.5-9	Projected Water Supply and Demand During Normal, Single Dry, and Multiple Dry Years (AFY)4.5-40
4.5-10	Total Cumulative Water Demand (AFY)4.5-48
4.6	Transportation
4.6-1	Unitrans Route Summary – Project Site Vicinity4.6-7
4.6-2	Aquatic Complex Weekday Programming4.6-22
4.6-3	Project Vehicle Trip Generation Estimates4.6-24
4.6-4	Project Residential Component Weekday Residential VMT per Capita.....4.6-33
4.6-5	Effect of Project Non-Residential Component on Weekday Total VMT.....4.6-34
4.6-6	Freeway Off-Ramp Queuing – Existing Plus Project Conditions.....4.6-39
6.	Alternatives Analysis
6-1	No Pentathlon Facility Alternative vs. Proposed Project6-26
6.2	Comparison of Environmental Impacts for Project Alternatives6-32

