18.0
Cumulative Impacts

18.1 CEQA Requirements

CEQA Guidelines section 15130 requires a discussion of cumulative impacts when the project's incremental effect is "cumulatively considerable", as defined in section 15065(a)(3), which states, "The project has possible environmental effects that are individually limited but cumulative considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. A cumulative impact consists of an impact that is created as a result of the combination of the proposed project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR. When the combined cumulative impacts associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting its conclusion that the cumulative impact is less than significant.

A lead agency may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and therefore, is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the

other identified projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact (CEQA Guidelines, Section 15130).

CEQA requires a cumulative development scenario to consist of either a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or, a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

18.2 Cumulative Development Scenario

CEQA requires a cumulative development scenario to consist of either 1) a "list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency" or 2) a "summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for reducing GHGs. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Projections may be supplemented with additional information such as a regional modeling program.

Geographic Scope

The geographic scope of the area affected by cumulative impacts can vary with the specific environmental topic being evaluated. Therefore, the cumulative development scenario can vary with the environmental topic being considered. The geographic scope of the area affected by cumulative impacts is typically larger than the boundary of the project site itself. According to CEQA Guidelines section 15130(b)(1)(3), the lead agency should define the geographic scope of the area affected by the cumulative effect. For the proposed project, the geographic scope for cumulative impacts ranges from development within the unincorporated community of McKinleyville to much broader areas such as Humboldt County, air basin or state. For example, aesthetic impacts are evaluated within the context of buildout of the Humboldt County general plan; the entire air basin is the geographic boundary used in the cumulative air quality analysis; and the proposed project effect on climate change is evaluated at a state scale. The geographic scope is included in each cumulative impact discussion, and summarized in Table 18-1, Geographic Scope for Cumulative Impact Analyses. For environmental topics for which no project-specific impact is identified, no cumulative impact analysis is provided and therefore, no cumulative impact geographic boundary is identified.

Table 18-1 Geographic Scope for Cumulative Impact Analyses

Resource Area	Geographic Area
Aesthetics	Project Site Vicinity and Adjacent Properties
Air Quality	North Coast Air Basin
Biological Resources	Associated USGS Quadrangle Boundaries
Cultural and Tribal Cultural Resources	Humboldt County
Energy	State of California
Geology and Soils	Project Site
Greenhouse Gas Emissions	State of California
Hazards and Hazardous Materials	McKinleyville Community Plan Area
Hydrology and Water Quality	Humboldt County
Noise	Humboldt County
Public Services	Humboldt County
Transportation	Humboldt County
Water Demand and Supply	McKinleyville Community Services District (Service Area)
Wastewater	McKinleyville Community Services District (Service Area)

SOURCE: EMC Planning Group 2024

Plans Projections Contributing to Cumulative Development Conditions

As noted above, for a number of environmental topics, the geographic scope of the area affected by a cumulative effect is the Humboldt County boundary. According to the general plan EIR, "this geographic limitation for the cumulative assessment is reasonable because of the relative isolation of the county and separation from adjacent counties by large tracts of resource lands as shown on the GPU land use maps" (page 5-2).

While the general plan EIR notes that the County is not expected to reach the maximum buildout allowed under the 20-year general plan planning horizon from 2020-2040. Table 2.5-1 in the general plan EIR projects a total of 38,972 new dwelling units within the unincorporated area. Commercial and office building square footage is projected to increase by 401,862 square feet in locations designated Commercial and Mixed Use. Building square footage in areas designated Industrial is projected to increase by 2,728,856 square feet. The unincorporated area includes all community plan areas, including McKinleyville. The general plan notes that the California Department of Finance forecasts that the Humboldt County population will grow approximately 2.4 percent between 2016 and 2040 to 138,307 in 2040.

The 2,650 multi-family dwelling units projected for the proposed project is approximately seven percent of the forecast countywide residential development capacity. The population of 6,122 for the project represents about four percent of the forecast countywide 2040 population. The 904,000 square feet of commercial/office development capacity for the project is about 125 percent greater than projected for the county as a whole.

18.3 Cumulative Analysis

The methodology for addressing each cumulative impact topic is to: 1) identify the geographic boundary or scope for the environmental topic; 2) determine whether past projects, other current projects, and probable future projects (including the proposed project), have or will likely combine to create a significant cumulative environmental impact based on information contained in the general plan EIR, or based on other pertinent information for the geographic scope of the cumulative effect; and, if so, 3) evaluate the contribution of the project to the cumulative effect and determine whether that contribution is considerable (and therefore significant).

Aesthetics

Proposed Project Impact Summary

The aesthetics impacts of the project are discussed in Section 16.0, Effects Found to be Less than Significant, Subsection 16.1, Aesthetics. The proposed project would have less-than-significant impacts associated with scenic vistas, conflict with regulations governing scenic quality, and light and glare, largely due to required conformance if future individual projects with uniformly applied regulations in the County Code and Q-Zone that address aesthetics issues.

Geographic Scope

The geographic scope for cumulative aesthetic impacts is McKinleyville. This scope is selected because the proposed project would largely be visible from public viewing areas within the immediate project site vicinity and due to allowed building heights, likely from locations further from the site. Central Avenue would be the most highly frequented public viewing location from which new development would be visible. U.S. Highway 101 is located about 1.5 miles to the east – from this distance and due to intervening tree cover and developed uses, the site is not visible, and it is unlikely that buildings of the maximum height permitted would be visible. McKinleyville is largely urbanized, which makes it a logical boundary for assessing visual change from infill development on currently vacant land.

Cumulative Impacts

Past and existing cumulative urban development within McKinleyville has substantially changed scenic resource conditions on previously vacant land, likely with valuable open space visual quality, by converting it to urban use. This cumulative visual impact is common for every individual project that converts such land to urban use. The contribution of individual projects to cumulative impacts is diminished where such development is proposed on urban infill sites that are largely surrounded by existing urban uses. Consequently, past, present, and probable future development in McKinleyville is considered to have contributed a cumulatively significant impact on visual resource conditions.

Similarly, past and present urban development in McKinleyville requires lighting that contributes to skyglow and glare that affects nighttime views in the vicinity of the lighting sources. Future development within McKinleyville and adjacent unincorporated areas will require lighting that contributes to this same effect. Past, present, and probable future development in McKinleyville is considered to have cumulatively significant impact on nighttime views due to sky glow.

Project Contribution to Cumulative Impacts

The proposed project would result in new urban development on an infill site. Sensitivity to changes in visual conditions in such locations is reduced relative to development on greenfield sites at the margins of urban areas or in unincorporated that are not already adjacent to urban development and its associated cumulative visual resources impacts. New development within the site must be designed consistent with existing County Code regulations that address visual resources and with proposed Q-Zone regulations that address a range of visual resource considerations, including building form, lighting, glare, trash enclosures, etc. The increment of visual change would not be substantial relative to the existing cumulative development context. Therefore, the project impact is considered to be less than cumulative considerable and less than cumulative significant.

The proposed project will result in an increase in sky glow due largely to building and parking lot lighting. The project-generated change is within the broader vicinity context of urban development within McKinleyville, including significant commercial development within the site located along the Central Avenue corridor. With its location on an infill site, the incremental change in sky glow effect from the project is not likely to be highly discernable relative to cumulative conditions. The proposed project contribution to sky glow effects is, therefore, considered to be less than considerable and less-than-cumulatively significant.

Agriculture and Forest Resources

As described in Section 16.0, Effects Found to be Less than Significant, Subsection 16.2, Agricultural and Forestry Resources, the project site contains soils classified as Farmland, but whose commercial productive use as such is deemed infeasible due to its infill location and site constraints including wetland resources. The site does not contain forest resources. Consequently, the proposed project would not contribute to cumulative agriculture or forest resources impacts.

Air Quality

Proposed Project Impact Summary

As described in Section 5.0, Air Quality, the proposed project would have the following significant impacts:

- Impact 5-1: Conflict with Air Quality Plan Control Measures (Less than Significant with Mitigation); and
- Impact 5-3: Construction Health Risks (Less than Significant with Mitigation).

Geographic Scope

The geographic scope for cumulative air quality impacts varies based on the particular potential impact being considered. For criteria air emissions impacts, the boundary is the North Central Coast air basin, which encompasses Del Norte, Humboldt, Mendicino, Trinity and Northern Sonoma counties. This is the area for which the North Coast Air Pollution Control District has prepared an air quality plan for reducing specific types of air emissions and otherwise manages air quality to meet federal and state air quality standards.

For health risks associated with construction source and stationary source Toxic Air Contaminant (TAC) emissions from future development within the site, the boundary is the location of existing sensitive receptors within and adjacent to the site and future receptors within the site. For transportation-source health risks, the boundary is the location of sensitive receptors on local roadways in the immediate project area.

Cumulative Impacts

Past and present development within the air basin has generated criteria air emissions through construction and operational activities. The air basin has historically been in non-attainment for particulate matter relative to State Ambient Air Quality Standards. That is, past and present development has generated to the extent that their concentration within the air basin exceeds applicable standards. Therefore, this impact is cumulatively significant.

Construction TACs can adversely affect sensitive receptors, but due to their temporary nature and localized effects, it is unlikely that they would combine in a cumulative context to adversely affect the same population of sensitive receptors; the impact is less-than-cumulatively

significant. TACs from stationary sources and transportation sources can individually or additively impact sensitive receptors. However, given the stationary sources are permitted by the air district, it is unlikely that these TAC sources have combined to create cumulative health risks for the same sensitive receptors. On the other hand, it is possible that sensitive receptors located along the more heavily-traveled highways in the county, particularly U.S. Highway 101, may be exposed to health risks from transportation sources. This is conservatively assumed to be a cumulatively significant impact.

Project Contribution to Cumulative Impacts

Impacts of the proposed project on air quality are identified in Section 5.0, Air Quality.

Criteria Air Emissions

Consistent with air district guidance, consistency with the air quality plan regarding PM_{10} emissions serves as the analysis of cumulative impacts from generation of this criteria pollutant. Given the proposed pedestrian, bicycle and transit improvements included in the project, the project is consistent with associated air quality control measures in the air quality plan. With implementation of mitigation measure 5-1, which prohibits wood burning fireplaces in new residential units, future individual projects would be consistent with particulate matter associated control measures. Consequently, the proposed project's contribution to cumulative impacts for this criteria pollutant would be less than cumulatively considerable and less than cumulatively significant.

The air district does not provide guidance for evaluating cumulative criteria air emissions from a plan project. Consequently, guidance from BAAQMD was used as reference for criteria emissions other than PM_{10}. As described in Section 5.0, plan projects such as the proposed project, whose rate of vehicle activity in the form of vehicle trip generation increase exceeds their rate of population (or service population) increase are considered to have cumulative considerable criteria air emissions impacts. The rate of vehicle trip growth to service population for the project would decline under 2045 project buildout conditions relative to baseline conditions. Consequently, at buildout this impact would be less than cumulatively considerable and less than cumulatively significant.

Health Risks

It is possible that new development within the site could include new stationary sources of TACs. The air district requires permits for such sources. Prior to issuing a permit, the air district evaluates such sources to determine their potential to create health risks. If such potential exists, requirements are placed on the development to minimize risk to an acceptable level, including in consideration of existing TAC sources in the vicinity. As a result, the proposed project contribution to this effect would be less-than-cumulatively considerable.

Biological Resources

Proposed Project Impact Summary

The biological resource impacts of the project are discussed in Section 6.0, Biological Resources. The proposed project would result in the following biological resource impacts:

- Potential Effects on Special-Status Plant Species (Species with Potential to Occur on the Project Site) (Less than Significant with Mitigation);
- Impact 6-2. Potential Effects on Special-Status Wildlife Species (Northern Red-Legged Frog) (Less than Significant with Mitigation);
- Impact 6-3. Potential Effects on Special-Status Wildlife Species (Western Bumble Bee) (Less than Significant with Mitigation);
- Impact 6-4. Potential Adverse Effect on Special-Status Bat Species (Townsend's Big-Eared Bat) (Less than Significant with Mitigation);
- Impact 6-5. Potential Adverse Effect on Nesting Migratory Birds and Raptors (Less than Significant with Mitigation);
- Impact 6-6. Potential Effects on Federally- and State-Protected Wetlands or Waters of the U.S. (Less than Significant with Mitigation); and
- Impact 6-7. Potential Effects on Riparian Habitat or Other Sensitive Natural Community (Coastal Dune Willow - Sitka Willow - Douglas Spiraea Thickets Shrubland Alliance) (Less than Significant with Mitigation).

Geographic Scope

The cumulative impact scenario for biological resources is variable, depending on the specific resource being considered. The geographic distribution ranges for special-status species vary greatly depending largely on environmental factors such as habitat suitability criteria. For example, some species may only occur locally while others may range throughout large geographic areas such as the western U.S. For the purposes of cumulative analysis for special status species and other biological resources, including jurisdictional wetlands and waterways, the geographic boundary for cumulative impacts is generally defined as the following 7.5-minute U.S. Geological Survey quadrangles generally centered on the community of McKinleyville: Arcata North, Crannell, Panther Creek, Eureka, Arcata South, Korbel, Tyee City, and Blue Lake USGS quadrangles.

A 7.5-minute quadrangle map typically covers an area of about 49 to 70 square miles. An analysis at this level is considered adequate for determining whether impacts could affect the sustainability of special status species and their habitats. Within this area, regulatory agencies and conservation organizations, including U.S. Fish and Wildlife Service, the California

Department of Fish and Wildlife, and California Native Plant Society, work to establish and update critical distribution range information for species thought to be declining within their geographic ranges due to habitat loss and degradation.

Cumulative Impacts

Past and present development within the multiple-quadrangle geographic boundary identified above has reduced the range and number of multiple plant and wildlife species and contributed to threats to their continued viability. The fact that federal and state agencies recognize numerous plant and wildlife species with special status that requires their specific consideration and protection reflects that the respective species are declining in number and range relative to their historic occurrences. Special-status species are generally considered rare, restricted in distribution, declining throughout their range, and/or to have a critical, vulnerable stage in their life cycle, that warrants their protection and monitoring. Such development has also caused the loss or decline of sensitive natural plant communities including riparian, woodlands, and wetland communities, has constrained wildlife movement, and reduced nesting and foraging habitat for resident and migratory avian species. The impacts of past and present development on special-status species and protected habitat communities are cumulatively significant. Future probable projects that could be developed based on the general plans or community plans of agencies located within this boundary, including the County, would further contribute to these cumulatively significant impacts.

Past and present development within the geographic boundary of cumulative impacts has resulted in impacts to wetlands and waterways. Much of this development was constructed after enactment of federal and state legislation that mandate protecting or conserving these resources through regulatory permitting processes. These permits commonly include wetland habitat restoration requirements or other appropriate mitigation to ensure no net loss of habitat functions and values. Probable future development projected in the will be subject to the same regulatory requirements. Impacts of cumulative development on wetlands are considered cumulatively significant, and reduced to less than significant with proposed mitigation.

Project Contribution to Cumulative Impacts

Potential impacts to special-status plant species, northern red-legged frog, western bumble bee, special-status bat species, nesting birds, and federally- and state-protected waters of the U.S. were identified as potentially significant as a result of the proposed project. Implementation of mitigation measures identified in Section 6.0, Biological Resources, would reduce potential impacts to these species and habitats to less than significant.

The potential for the site to be used as a wildlife corridor is minimal given that the project site is bordered on all sides by developed areas with little to no natural corridors. Movement is likely restricted to that of common wildlife species and these areas do not function as regional wildlife movement corridors or habitat linkages.

Project impacts and the loss of sensitive natural communities, such as the Coastal dune willow-Sitka willow – Douglas spiraea Shrubland Alliance community identified on the project site will be mitigated for through on-site and/or off-site mitigation. If off-site mitigation is preferred, similar habitat as that lost as a result of the project shall be protected in perpetuity through a conservation easement or similar instrument at a minimum 1:1 preserved to impacted acreage ratio.

The project site contains wetland areas that will be impacted. Mitigation measures assure that impacts to them are reduced to less than significant through the regulatory process and Q-Zone regulations to ensure no net loss of wetland area, function, or value, either through wetland creation, restoration, or the purchase of wetland credits through an approved wetland mitigation bank.

Given the historical effectiveness of the proposed mitigation measures, impacts of the proposed project on biological resources are considered to be less-than-cumulatively considerable and less- than-cumulatively significant.

Cultural and Tribal Cultural Resources

Proposed Project Impact Summary

The cultural resource impacts of the project are discussed in Section 7.0, Cultural and Tribal Resources. The proposed project would result in the following cultural resource impacts:

Geographic Scope

The geographic scope for this impact is Humboldt County. This scope boundary was selected because it identifies the limits within which the County exercises control over activities with potential to impact cultural resources, including the proposed project. The cultural resources effects of the proposed project are common to land use projects over which the County has discretionary authority.

Cumulative Impacts

Impacts on cultural resources, Native American human remains, and tribal cultural resources have occurred throughout the County over time given the richness of these resources in the county and due a range of development activities that have disturbed surface and subsurface resources. Cumulative impacts on these resources are assumed to be significant.

Project Contribution to Cumulative Impacts

The proposed project is not anticipated to have significant impacts on cultural or tribal cultural resources as described in Section 7.0, Cultural and Tribal Resources. It's required conformance to General Plan policies and standards designed to reduce impacts on these resources will reduce its contribution to cumulative cultural resources impacts. With compliance to the policies and standards, the project contribution to cultural resources impacts would be less-than-cumulatively considerable and less-than-cumulatively significant.

Energy

Proposed Project Impact Summary

The energy impacts of the project are discussed in Section 8.0, Energy. The project impact from unnecessary, wasteful, or inefficient energy use was found to be less than significant.

Geographic Scope

There is no specific, single geographic scope for assessing cumulative energy impacts. Depending on the energy types and indirect implications of energy use (e.g., air quality and climate change effects), the geographic boundary for energy can be variable.

Cumulative Impacts

Energy use in the form of fossil fuels (utility scale electricity produced from fossil fuels, natural gas and transportation fuel) from past and current development has led to a multitude of environmental impacts. Those associated with common land development project types include increased criteria air emissions, toxic air contaminants, and GHGs, among others. Cumulative consumption of fossil fuels has led to related cumulatively significant impacts at local, regional, state, national, and international levels. The extent to which these impacts are associated with unnecessary, wasteful or inefficient energy use is speculative because the threshold of significance is qualitative.

Project Contribution to Cumulative Impacts

Like most typical large land use projects, the proposed project would increase demand for energy. The project includes common land use types for which energy demand is necessary to help implement Humboldt County economic development goals and policies. Thus, its energy use would not be unnecessary. Energy use would not be wasteful or inefficient for several reasons: 1) new development must comply with applicable energy conservation, efficiency, and renewable regulations; 2) the project includes design features, including its land use design and transportation demand management features that would reduce VMT and associated transportation fuel demand; and 3) mitigation required in Section 9.0, Greenhouse Gases, prohibits use of natural gas – development must be all electric to help shift energy use to more renewable forms of electricity production. Though cumulative impact determination is qualitative, the proposed project contribution to cumulative energy impacts is considered less-than-cumulatively considerable and less-than-cumulatively significant.

Geology and Soils

Proposed Project Impact Summary

As described in Section 16.0, Effects Found to be Less than Significant, Subsection 16.3, Geology and Soils, CEQA documents generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. While Section 16.3, Geology and Soils, and the cumulative impact discussion below include these analyses, they are included only for informational purposes.

Geographic Scope

The geographic context generally is site specific because each project site has a different set of geologic considerations and development of specific sites would be subject to uniform site development and construction standards as a means to address site-specific hazards.

Cumulative Impacts

Cumulative development in McKinleyville has increased the number of people and structures that could be exposed to hazards associated with seismic activity, primarily ground shaking and potentially liquefaction, as well as hazards that include landslides, expansive soils, and unstable geologic units. Future probable cumulative development will increase exposure to geologic hazards by introducing significant new development and population. Though future probable development will be subject to regulatory requirements that reduce its contribution to cumulative exposure to geologic hazards, the cumulative impact from exposure to geologic hazards is nevertheless considered to be significant.

Project Contribution to Cumulative Impacts

Existing geologic hazards that have potential to affect new development within the project site include seismic shaking and seismic-shaking related ground failure. The proposed project could result in cumulatively considerable impacts if it were to exacerbate these hazards, and by doing so, worsen exposure of structures and people to risks from such hazards. Seismic shaking is a natural phenomenon; new development does not have potential to exacerbate related hazards. Further, new development must comply with a range of General Plan policies and uniformly applied state and local regulations, such as the California Building Code, designed to reduce exposure of structures and people to geologic hazards. Given these considerations, the proposed project is not anticipated to have cumulatively considerable geologic or soils impacts.

Greenhouse Gas Emissions

Proposed Project Impact Summary

As described in Section 9.0, Greenhouse Gases, the proposed project would have less-than-significant GHG and less-than-significant impact from conflict with a GHG reduction plan with implementation of mitigation measure 9-1.

Geographic Scope

The geographic boundary for climate change impacts is global. GHG emissions effects are not localized to areas where they are produced. Climate change is a global phenomenon resulting from the combined effects of GHG emissions produced worldwide. Consequently, the analysis of climate change impacts from production of GHGs as included in Section 9.0, Greenhouse Gases, is inherently cumulative in nature. While the true geographic scope of the area affected by GHG emissions is global, for purposes of this EIR, the geographic scope is considered to be the State of California. This scope is selected because California's legislative and regulatory climate change framework is designed to reduce GHG emissions whose management is directly or indirectly within the control of the state. All new land use development within the state, including development within the project site, is subject to compliance with state climate change legislation and regulations.

Cumulative Impacts

Refer to Section 9.0, Greenhouse Gas, for a review of state legislative and regulatory framework for setting and achieving statewide GHG reduction goals. In summary, even with continued implementation of state regulations aimed at achieving the state's 2030 and 2045 GHG reduction goals, it is uncertain at this time whether these goals can be achieved. It would be speculative to assume that the required actions embodied in the 2022 Scoping Plan, which guides current state actions to achieve the goals, can and will achieve their anticipated GHG emissions objectives. Therefore, the contribution of cumulative development within the state to climate change impacts in 2030 and 2045 is assumed to be significant.

Project Contribution to Cumulative Impacts

Future development within the site would have less-than-significant GHG impacts if it implements mitigation measure 9-1 as required. The mitigation measure ensures that all future development is consistent with GHG reduction performance standards designed to reduce GHG emissions from land use projects such that the land use sector contributes its fair share to reducing statewide GHG emissions to meet the state's 2030 and 2045 GHG reduction targets. Therefore, the proposed project would achieve its fair share of GHG emissions reductions. As a result, its contribution to the cumulative impact is less than considerable and less-than-cumulatively significant.

Hazards and Hazardous Materials

Proposed Project Impact Summary

As described in Section 16.0, Effects Found to be Less than Significant, Subsection 16.4, Hazards and Hazardous Materials, all potential hazards and hazardous materials impacts would be less than significant with required conformance to local, state, and federal regulations regarding use, handling, storage, disposal and transport of hazardous materials.

Geographic Scope

The geographic scope is buildout of the community plan, as hazardous materials issues of concern generally are site specific with potential to affect site users and/or the local community.

Cumulative Impacts

Past and present development within McKinleyville has contributed to increased risks to public health and safety related to existing hazardous materials conditions and has created new hazardous materials risks through increased transport, use, storage, and disposal of hazardous materials. However, typical non-industrial or heavy commercial uses such as residential and commercial development, which are the dominant land uses within McKinleyville, are typically not sources of significant hazardous materials risk. The related impacts of future development within the community, including exposure of people and property to hazardous materials conditions, and generation, transport, and storage of hazardous materials by existing and probable new development would likely be similar and reduced to less than significant with required conformance with uniformly applied development regulations. Consequently, cumulative hazards to public health and safety and to environmental resources from cumulative development are assumed to be less-than-cumulatively considerable and less-than-cumulatively significant.

Project Contribution to Cumulative Impacts

Like most of the existing and future development within the community, the proposed project includes residential and commercial uses that typically are not considered to be significant sources of hazardous materials risk. Any such risks would be reduced to less than significant through conformance with federal and state laws and regulations as described in Section 16.4. Consequently, the project contribution to cumulative hazardous materials impacts would be less than considerable and less-than-cumulatively significant.

Hydrology and Water Quality

Proposed Project Impact Summary

As described in Section 10.0, Hydrology and Water Quality, all associated potential water quality and flood hazard impacts would be less than significant with required conformance to local, state, and federal regulations.

Geographic Scope

The geographic boundary for cumulative hydrology and water quality impacts is the community plan, as the project site is in an infill location within an urban area, where urban uses have contributed to potential hydrology and water quality impacts over time.

Cumulative Impacts

Past and existing development within McKinleyville has contributed to significant cumulative surface and groundwater quality impacts during construction and during operations in a variety of ways, most notably through erosion of soils exposed during site preparation/construction processes and subsequent sedimentation of surface water bodies, release of urban pollutants such as oils or hazardous materials stored in underground storage tanks or elsewhere, and release of urban pollutants to surface water contained in stormwater discharged from developed project sites, roadways, etc. It is possible that water quality standards have been violated with the effect that water quality in surface water bodies in the vicinity is considered impaired. Probable future development within the community has potential to exacerbate existing water quality impacts or create new water quality impacts. However, with increasingly stringent water quality protections such as stormwater development standards, with which new development must conform, future development is likely to have reduced potential for contributing to water quality degradation relative to past and existing development. Cumulative water quality impacts are considered to be significant.

Project Contribution to Cumulative Impacts

As described in Section 10.0, potential erosion and surface and groundwater quality impacts are less than significant with required conformance to the state stormwater development standards as implemented by the County through the McKinleyville storm water management program. Given this requirement, the project contribution to water quality impacts is considered to be less than considerable and less-than-cumulatively significant.

Noise

Proposed Project Impact Summary

Project noise impacts are described in Section 11.0, Noise. The proposed project would result in the following noise impacts:

- Construction Noise Effects (Less than Significant with Mitigation);
- Traffic Noise Exposure at Existing Residential Uses Along Railroad Drive (Significant and Unavoidable;
- Traffic Noise Exposure at Future On-site Sensitive Receptors (Less than Significant with Mitigation); and
- Commercial Use Stationary Noise Exposure at Existing Off-Site and Future On-Site Sensitive Receptors (Less than Significant with Mitigation).

Geographic Scope

The geographic scope for cumulative traffic noise impacts is the county, as this is the geographic boundary covered by the Humboldt County Travel Demand Model. The model includes assumptions about cumulative development and increases in traffic volumes throughout the county. The traffic generation and distribution information from the model is an input to the noise model used for estimating changes in traffic noise resulting from adding project traffic to local roads, and to estimate exposure of existing and future on-site sensitive receptors along local roadways to cumulative traffic noise.

The geographic scope for cumulative stationary noise source impacts is the project site and land uses immediately adjacent to the site. This scope is applicable because stationary source impacts are typically associated with stationary equipment noise used in commercial and office development (e.g., rooftop HVAC units). Such impacts generally are localized and arise from conflicts with noise sensitive uses such as residential, schools, churches, etc., located near the noise source.

Cumulative Impacts

Past and present development within the county has contributed to increased ambient traffic noise levels. Permanent noise increases within the community have occurred in large part due to traffic volume increases on local and regional roadways. With increasing noise levels, past and existing noise sensitive land uses such as residences and schools, have been and will continue to be exposed to traffic noise that exceeds noise exposure standards. Probable future development within the county and McKinleyville will exacerbate traffic noise impacts over time by contributing traffic to local and regional roadways. Cumulative traffic noise impacts are considered to be significant.

Effects of stationary noise are local and generally affect sensitive receptors in the immediate area of the stationary noise source. As such, it is generally unlikely that multiple stationary noise sources would adversely affect the same nearby sensitive receptors. Consequently, cumulative impacts from stationary noise sources are considered to be less-than-cumulatively significant.

Project Contribution to Cumulative Impacts

The traffic noise analysis in Section 11.0 also serves as the cumulative impact analysis because traffic changes were evaluated under project buildout conditions in the year 2045. As described in that section, the project contribution to cumulative traffic noise impacts on existing residences along Railroad Drive would result in noise exposures exceeding the threshold of significance. The impact was found to be significant and unavoidable. Thus, the project contribution to the impact is cumulatively considerable and the cumulative impact is significant and unavoidable.

The analysis of stationary source impacts in Section 11.0 also serves as the cumulative analysis for such impacts, because the analysis was conducted for project buildout conditions for the year 2045. The potential contribution of on-site stationary noise sources to noise generated by cumulative stationary sources is considered less than considerable and less-than-cumulatively significant. Future individual on-site stationary sources are unlikely to generate noise that impacts receptors that are now adversely affected by other stationary noise sources. Stationary source noise mitigation required of future development within the site would limit the potential contribution of such sources to cumulative noise levels.

Public Services

In addressing public service demand issues under CEQA, the appropriate focus is on the environmental effects of whatever steps might be necessary to achieve or maintain adequate service. For example, if proposed new development would create an increased demand for school services, the associated project CEQA documentation should inquire as to whether new or expanded physical facilities may be required to provide such service. The "impacts" addressed under CEQA are the physical effects of providing service, not any possible failure to provide adequate service under applicable standards. Therefore, this analysis of cumulative public services impacts focuses on cumulative physical impacts resulting from the need to construct and operate facilities needed to maintain adequate public services levels.

Proposed Project Impact Summary

Public services impacts are discussed in Section 12.0, Public Services. The proposed project would contribute to the cumulative need to construct a new fire station, but would not, given information available from the respective service providers, trigger the need to construct new police or school facilities.

Geographic Scope

The geographic scope for public services impacts is the service boundary of each respective public service provider. Should the proposed project create services demands that trigger the need to construct new public service facilities, that construction would occur within those respective service provider boundaries.

Cumulative Impacts

Fire and Police Protection

Past, present, and foreseeable future cumulative development within the service areas of these service providers has contributed to the demands on the service capacity of both departments. When cumulative demand exceeds the capacity of each service to maintain acceptable service ratios, response times, or other performance objectives, existing facilities have been expanded or new facilities constructed. Constructing and operating these facilities has contributed to

significant cumulative environmental impacts, as will constructing and operating future facilities needed to meet foreseeable demand. These impacts include, but may not be limited to loss of protected biological resources, noise, and transportation.

Schools

Past, present, and foreseeable future cumulative development within the two McKinleyville school district service areas has contributed to their respective need to construct and operate school facilities over time. Constructing and operating school facilities has contributed to cumulatively considerable impacts that include, but may not be limited to air quality, loss of protected biological resources, GHGs, noise, and transportation.

Parks and Recreation

Past, present, and foreseeable future cumulative development within the McKinleyville Community Services District has contributed its need to construct and operate park and recreation facilities. Constructing and operating park and recreation facilities has contributed to cumulatively considerable impacts that include, but may not be limited to air quality, loss of protected biological resources, GHGs, noise, and transportation.

Project Contribution to Cumulative Impacts

Fire and Sheriff Protection

Demand for fire protection and Sheriff protection services is described Section 12.0, Public Services. Regarding fire protection, the Arcata Fire District has identified that the project, combined with future cumulative development, would trigger the need to construct a new fire station. The specific environmental impacts of constructing and operating a new fire station would be evaluated in CEQA documentation to be prepared by the County at the time a specific location and fire station design is available. Nevertheless, it is unlikely that operations of a remodeled or new fire station, wherever it may be located, would result in impacts that are cumulatively considerable, given the relatively small project size and types of effects from operating a fire station.

The proposed project would not contribute to the need for the Sheriff to construct or operate new police protection facilities; service for the proposed project can be adequately provided from existing facilities. Therefore, the proposed project would have no cumulative impact from constructing or operating such facilities.

Schools

The proposed project would generate approximately 1,216 elementary and middle school-age students. Under existing conditions, there is capacity in McKinleyville Union School District elementary and middle school schools to accommodate new students. Due to uncertainty about the timeframe in which both elementary and middle school students would be generated

from new residential development within the project site, it would be speculative to determine whether capacity in the McKinleyville Union School District elementary or middle schools would be available to house the new students at the time demand is created. Should new or expanded facilities be needed to house the students, the McKinleyville Union School District will make that determination and be responsible for preparing CEQA documentation to evaluate the impacts of constructing and operating such facilities at the time specific projects on specific sites are identified. It would be speculative to ascertain whether the contribution of such projects to cumulative impacts identified in that CEQA documentation may or may not be cumulatively considerable.

McKinleyville High School, operated by the Northern Humboldt Union High School District, also has capacity at present to accommodate additional high school-age students. Due to uncertainty about the timeframe in which new high-school-age students residing within the project site would require capacity in the high school, it would be speculative to determine whether the high school would or would not have capacity to accommodate students at the time they require capacity. If new facilities were needed, the Northern Humboldt Union High School District would prepare CEQA documentation at the time a specific capacity expansion project(s) is proposed to assess whether operating a new school or other forms of capacity expansion (e.g., portable classrooms) would have considerable cumulative impacts. It would be speculative at this time to ascertain whether the cumulatively considerable impacts would occur.

Parks and Recreation

Increased demand for park and recreation facilities is described Section 16.6, Parks and Recreation. The proposed project would generate a substantial population increase with that increase translating into the need for new park and recreation facilities and/or expanded/improved existing park and recreation facilities. The specific environmental impacts of constructing and operating new park and recreation facilities or expanding/improving existing facilities would be evaluated in CEQA documentation to be prepared by the MCSD at the time the specific location(s) of new facilities and/or expanded facilities are defined. Nevertheless, it is unlikely that associated cumulative impacts would be considerable given that the scale of development for new parks/expanded parks would be nominal relative to existing urban development within McKinleyville, and associated operational impacts such as air quality, cultural resources, GHGs, noise, etc., would be not be substantial relative to existing cumulative effects of urban development in the community.

Transportation

Proposed Project Impact Summary

Transportation impacts are discussed in Section 13.0, Transportation. the proposed project would have less than significant VMT impacts and would have no impact from conflict with plans for bicycle, pedestrian, and transit systems.

Geographic Scope

The geographic scope for cumulative VMT is the County, as this is the boundary covered by the Humboldt County Travel Demand Model, which was used to evaluate project VMT.

Cumulative Impacts

As of July 1, 2020, per Senate Bill 743, the change in VMT created by a new project became the focus of assessing transportation impacts from land use projects. Consequently, cumulative impacts from VMT have not occurred over time. However, SB 743 was largely passed as a basis for assessing the contribution of VMT to generating GHGs and to create criteria that "promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses." In short, VMT in and of itself has not been evaluated as a cumulative impact under CEQA. Rather, evaluating VMT as a factor in contributing to cumulative mobile-source GHG emissions is the purpose of using VMT as a transportation impact analysis metric. In this context then, and as described in the cumulative analysis of GHG impacts presented above, GHG emissions generated by mobile sources (and their associated VMT) has contributed to cumulatively significant, statewide GHG impacts.

Project Contribution to Cumulative Impacts

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* (California Office of Planning and Research 2018) provides guidance on evaluating cumulative VMT impacts. The document states that a project whose VMT falls below an efficiency-based threshold of significance metric such as VMT per capita or VMT per employee and that is aligned with long-term environmental goals and relevant plans, would have no cumulative impact distinct from the project impact (California Office of Planning and Research 2018, p. 6). Thus, a finding of a less-than-significant VMT impact would imply a less-than-significant cumulative impact for land use types for which VMT is evaluated based on an efficiency metric. The VMT analysis in Section 13.0 concludes that VMT from the proposed residential and office uses, which is evaluated using an efficiency metric, would be less than significant. Therefore, the same conclusion can be drawn about their respective cumulative VMT impact – both would be less than considerable and less-than-cumulatively significant.

The retail component of the project would also have a less-than-significant VMT impact. VMT from this land use would be further reduced with implementation of mitigation measures Section 5.0, Air Quality, that would promote bicycle travel and transit use to reduce VMT.

Because new development capacity for the project is substantial relative to individual urban development projects likely to be proposed in unincorporated Humboldt County in the foreseeable future, its VMT generation would likely be a notable component of cumulative VMT generation in the county over time. However, the project has critical features that will substantially reduce VMT. First, the project includes bicycle, pedestrian, transit and road diet design features whose intent is to promote travel mode shift from vehicle use to non-vehicle use as described in Section 4.0, Project Description. Second, the project site is an urban infill location McKinleyville that will result in reduced vehicle travel and reduced trip length. Third, the project includes a mix of uses that would result in high internal trip capture – future site residents will have the opportunity to access on-site employment and commercial uses without utilizing personal vehicles. These are the most fundamental and effective features that can be employed to reduce VMT from land use development. Given these factors, the contribution of retail VMT from the project to cumulative VMT generation in the county would be less than considerable and less-than-cumulatively significant.

Water Supply

Proposed Project Impact Summary

MCSD expects to have the flexibility to purchase additional water from the HMBWD if in fact demand from buildout of the project site, in combination with future cumulative development within MCSD service area were to exceed its current annual water supply capacity. Therefore, the project would no impact from insufficient water supply.

Geographic Scope

The geographic scope for cumulative water supply impacts is development within the MCSD service areas of the MCSD.

Cumulative Impacts

Past, present, and foreseeable future cumulative development within the MCSD service area has contributed to water supply demand. To date, the MCSD has been able to supply/acquire sufficient water from surface water supplies to meet cumulative demand. Over time, MCSD anticipates being able to secure additional water supply to meet demand from future development. Therefore, cumulative impacts associated with water supply are less-than-cumulatively significant.

Project Contribution to Cumulative Impacts

The MCSD currently has sufficient water supply capacity to serve projected demand from the project. However, over the 20-year site development timeframe, other cumulative demand within the MCSD service area, in combination with demand from the project, demand may exceed current supply capacity. As noted above, MCSD anticipates being able to acquire

additional water supply from the HBMWD on an as needed basis over time. There are currently no constraints on the MCSD with regard to acquiring additional supply. Consequently, the proposed project contribution to cumulative water supply impacts is expected to be less than considerable and less-than-cumulatively significant.

Wastewater

Proposed Project Impact Summary

The proposed project could generate wastewater that triggers the need for the MCSD to upgrade its wastewater treatment facility and/or upgrade off-site wastewater collection infrastructure. At the current plan level of analysis, it is uncertain if and what upgrades may be necessary. If upgrades are required, the County will be responsible for preparing CEQA documentation for the specific upgrade project(s), once their location and description are known.

Geographic Scope

The geographic scope for cumulative wastewater impacts is development within the wastewater collection and treatment service areas of the MCSD.

Cumulative Impacts

Past, present, and foreseeable future cumulative development within the MCSD service area has contributed to reduced available treatment capacity at the treatment facility and reduced wastewater collection system capacity. Should cumulative treatment/collection demand exceed the capacity of either element of the wastewater system, construction of new facilities would be required. Construction of expanded facilities could have potential to cause short-term, significant air quality, biological resources, cultural resources, GHG, water quality, noise and possibly other environmental impacts. It is unlikely that associated construction activities would occur simultaneously with construction activities for other development in the immediate vicinity of wastewater system improvement locations such that considerable, short-term cumulative impacts would occur. Cumulative impacts are considered to be less than cumulatively considerable.

Project Contribution to Cumulative Impacts

The impacts of constructing new on-site and off-site wastewater collection infrastructure are addressed in other sections of this EIR. Impacts of such construction are not expected to combine with other short-term construction activities on other sites in the vicinity such that the project contribution to construction related cumulative impacts would be less than considerable and less-than-cumulatively significant.