



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
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Redding, CA 96001
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GAVIN NEWSOM, Governor
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March 9, 2023

Vanessa Blodgett, Contract City Planner
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Subject: Ferndale Land Use and Safety Element Updates (SCH# [2023020217](#))

Dear Vanessa Blodgett:

On February 8, 2023, the California Department of Fish and Wildlife (CDFW) received the City of Ferndale's (Lead Agency) Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Ferndale Land Use and Safety Element Updates (Project). CDFW appreciates the opportunity to comment on the Project and understands the State review period ends March 9, 2023.

As the Trustee Agency for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary to sustain their populations (Fish & G. Code, §§ 1801 & 1802). As a Responsible Agency, CDFW administers the California Endangered Species Act (CESA) and other provisions of Fish and Game Code that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as Trustee and Responsible Agency pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code § 21000 *et seq.*). CDFW participates in the regulatory process in its roles as Trustee and Responsible Agency to minimize Project impacts and avoid potential significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Projects impacts on public trust resources.

Project Description and Location

The Project covers the incorporated area of the City of Ferndale, Humboldt County, California. As described in the NOP, the Project will update and amend the City's existing General Plan Land Use and Safety Elements. The General Plan serves as a decision-making framework and policy document for the City and was last comprehensively updated and adopted in 1986. Since then, the City's land use needs have changed due to economic and demographic conditions and

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updates to State guidelines and policies. The Land Use Element also serves as the City's consolidated Open Space and Conservation Elements and provides the City an opportunity to review and program City-wide land uses for future growth. There have been changes to State guidelines since the Safety Element was drafted in 2014; the element will be updated to bring it into compliance with current regulations. The Project will require zoning amendments to implement proposed updates to the General Plan.

Environmental Setting and Special Status Species

The Salt River watershed is habitat for a variety of sensitive terrestrial and aquatic species, including anadromous fish. The river and its tributaries provide important spawning and rearing habitat for Southern Oregon / Northern California evolutionarily significant unit (ESU) of coho salmon (*Oncorhynchus kisutch*; Federal (FT) and State threatened [ST]), winter- and summer-run Northern California distinct population segment (DPS) of steelhead (*O. mykiss*; FT, Species of Special Concern [SSC] and SE, respectively), and coast cutthroat trout (*O. clarki clarki*; SSC). Creeks, riparian corridors, wetlands, and estuarine systems also provide habitat for western brook lamprey (*Lampetra richardsoni*; SSC), longfin smelt (*Spirinchus thaleichthys*; Federal candidate for listing, ST), and northern red-legged frog (*Rana aurora*; SSC). Other special status species known or likely to occur in the area include pallid bat (*Antrozous pallidus*; SSC), western bumblebee (*Bombus occidentalis*; State candidate for listing), Northern Spotted Owl (*Strix occidentalis caurina*; FT, ST), and Howell's montia (*Montia howellii*, California Rare Plant Rank [CRPR] 2B.2), among others.

Comments and Recommendations

CDFW would like to offer the following comments and recommendations on this Project in our role as a Trustee and Responsible Agency pursuant to CEQA (Pub. Resources Code § 21000 *et seq.*). CDFW's comments focus on potential direct, indirect, and cumulative impacts to aquatic, wetland, and riparian species and habitat, as well as the potential indirect impacts of habitat fragmentation and urbanization.

Wetland and Riparian Habitat Protection: CDFW understands the City has identified several conservation policies pertaining to soil protection and the preservation and enhancement of natural areas. To implement these policies, CDFW supports the proposed concept of a stream setback ordinance and looks forward to collaborating on the details. Urbanization and increased development near wetland and riparian areas adversely affect habitat quality by modifying hydrologic regimes and stream morphology, degrading water quality, altering microclimate, and reducing habitat connectivity and complexity (CDFW 2004, Tockner et al. 2008, CDFW 2014). Wetlands, riparian corridors, and associated floodplains are vital to over half of the listed species in California and provide essential benefits and habitat for fish, migratory birds, bats, amphibians, reptiles, and sensitive plants (CDFW 2014). Not only are these areas integral to conserving regional biodiversity (Naiman et al. 1993); they also provide important ecosystem

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services, such as flood control, groundwater recharge, filtration, and sediment retention (Novitzki et al. 1996, Tockner et al. 2008). No-disturbance buffers are widely used to protect sensitive habitats such as wetlands and streams and can be an effective means of mitigating for land use impacts in adjacent areas. Efforts to preserve headwater streams and restore urban riparian buffers may mitigate for some of the impacts of urbanization (Moore and Palmer 2005). Although Francis Creek is constrained by development, coho salmon (Divine 2005) and steelhead have been observed in the lower reaches (C. Loomis, District Fisheries Biologist pers. comm. 2023), further underscoring the importance of protecting or restoring upstream habitat. Although the existing Land Use Element proposed a stream management area for Francis Creek, setbacks were as little as 25 feet from the stream bank. Such narrow buffers provide little protection for aquatic resources (Castelle et al. 1994). CDFW recommends the City implement adequate no-disturbance buffers for streams and wetlands with provisions to limit and mitigate for development impacts (**Recommendation 1**). Prescribed buffer distances may vary depending on existing conditions, but CDFW encourages the Lead Agency to refer to the Humboldt County Streamside Management Areas and Wetlands Ordinance, when defining buffer widths and more importantly, the starting point for setbacks. Since 1994, CDFW Northern Region has been recommending setbacks start from the top of bank or edge of riparian, *whichever is greater*. For wetlands, the setback should start from the delineated boundary. Streamside management areas and wetland buffers should allow for the removal of riparian vegetation only under limited circumstances, with referral to CDFW for activities that entail substantial removal of riparian vegetation or alterations to the bed, bank or channel of any stream (Fish & G. Code § 1602).

Stormwater Management: CDFW applauds the City's intent to absorb population growth through infill principles and looks forward to learning more about the implementation of increased density. However, even infill development has the potential to adversely affect aquatic and riparian resources if not appropriately designed. Development that converts forests, fields and other semi-natural areas to impervious surfaces such as structures and pavement tends to intensify stormwater runoff and increase non-point source pollution. Rather than infiltrating through soil and vegetation, rainfall is rapidly discharged to streams and rivers, resulting in higher peak flows, increased bank instability, erosion, channel incision, flooding, discharge of fine sediment, and the introduction of pollutants such as hydrocarbons, heavy metals, garbage, pathogens, nutrients, and pesticides (USEPA 2000, CDFW 2014). In addition to the direct effects of unmitigated runoff, development can indirectly affect aquatic and riparian ecosystems by reducing groundwater recharge, resulting in low summer flows, higher stream temperatures, and loss or even elimination of aquatic habitat during the summer. CDFW therefore recommends the DEIR thoroughly evaluate potential direct, indirect, and cumulative impacts of increased stormwater runoff (**Recommendation 2**). To minimize potential impacts of development, CDFW recommends the Updates include clear policy and standards requiring the use of

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low-impact development (LID) design standards to mitigate stormwater runoff to predevelopment levels (**Recommendation 3**).

Water Budget: The Housing Element (2019) assures that existing water sources have the capacity to support growth, and that sites identified in the vacant land inventory can access water services through the Del Oro Water Company, which serves the City of Ferndale and surrounding unincorporated areas via groundwater. CDFW has an interest in the sustainable use of groundwater, as many sensitive species and ecosystems depend on groundwater and interconnected surface water. Groundwater extraction can deplete connected surface water flow, resulting in poor water quality, higher temperatures, and barriers to salmonid migration (CDFW 2021). In light of these concerns, CDFW recommends the City fully evaluate the indirect and cumulative impacts of increased groundwater extraction necessitated by increased density (**Recommendation 4**). If surface water diversion is still under consideration to meet the City's domestic water needs or supply rural properties, CDFW supports resource policies and standards to ensure adequate stream flow for fish and wildlife (**Recommendation 5**).

Habitat Fragmentation and Land Conversion: CDFW agrees with the concerns identified in the original Land Use and Safety Elements regarding the conversion of timber and agricultural lands. Road construction, land clearing, and other development activities in the Francis Creek watershed could further destabilize steep slopes, increasing the risk of landslides and contributing to downstream flooding and sedimentation. Furthermore, forested areas within and adjacent to the southern City limits provide relatively contiguous habitat for numerous wildlife, including sensitive species such as Northern Spotted Owl. Development in forested and agricultural lands results in direct habitat loss through land conversion, as well as indirect loss through habitat fragmentation. Encroachment effects include the introduction or spread of invasive species, increased prevalence of predators and other wildlife adapted to the wildland-urban interface, traffic mortality, and increased light and noise disturbance (Davies et al. 2001, CDFW 2014). CDFW supports the City's goal of encouraging infill development and recommends the Update reiterate policies and standards that limit new development in forested and agricultural land (**Recommendation 6**).

Development within Floodplains: CDFW acknowledges the City's efforts to limit development in floodplains and supports strengthening policies and programs to that effect. Development within the floodplain not only degrades essential habitat; it also exposes property to increased flood risk and constrains natural processes that would otherwise store and dissipate floodwaters. Regional climate change models for California and the Pacific Northwest predict wetter winters, extreme storm events, and a higher frequency of flooding (Bell et al. 2004, Kim 2005). It is therefore reasonable to expect increased flooding frequency and severity over the life of the Updates.

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Although the City has already adopted several ordinances pertaining to floodplain and drainage management, CDFW recommends prohibiting subdivision that would enable residential development in the 100-year floodplain (**Recommendation 7**).

Vegetation Management: The Draft Safety Element highlights the risk of wildfire in the forested slopes along the southern extent of City limits, within the State Responsibility Area (SRA). CDFW acknowledges the importance of protecting life and property and therefore encourages the City to take a thoughtful approach to defensible space and fuel reduction. Defensible space requirements for vegetation clearance increase the ecological footprint and environmental effects of new subdivisions and other development. Furthermore, vegetation removal on steep slopes may exacerbate erosion, sedimentation, and slope instability, thereby contributing to downstream flooding and water quality issues. Areas subject to routine vegetation removal are also prone to infestation by invasive plant species, which pose a significant threat to biodiversity. To minimize the impacts of vegetation removal on aquatic and riparian habitat, CDFW recommends the City develop a standard requiring new building sites and associated defensible space to be placed outside streamside management areas and wetland buffers (**Recommendation 8**). Furthermore, CDFW suggests the City adopt landscaping guidelines for new development to minimize the risk of introducing or spreading invasive plant species (**Recommendation 9**). Ideally, planting palettes would incorporate locally appropriate native species, but at minimum, landscaping and vegetated LID features should avoid invasive species listed in the [Cal-IPC Inventory](#).

Summary of Recommendations

- 1) CDFW recommends the City implement adequate no-disturbance buffers for streams and wetlands with provisions to limit and mitigate for development impacts.
- 2) The DEIR should thoroughly evaluate potential direct, indirect, and cumulative impacts of increased stormwater runoff.
- 3) To minimize potential impacts of development, CDFW recommends the Updates include clear policy and standards requiring the use of low-impact development (LID) design standards to mitigate stormwater runoff to predevelopment levels.
- 4) CDFW recommends the City fully evaluate the indirect and cumulative impacts of increased groundwater extraction necessitated by increased density.
- 5) If surface water diversion is still under consideration to meet the City's domestic water needs or supply rural properties, CDFW supports resource policies and standards to ensure adequate stream flow for fish and wildlife.
- 6) CDFW supports the City's goal of encouraging infill development and recommends the Update reiterate policies and standards that limit new development in forested and agricultural land.
- 7) Although the City has already adopted several ordinances pertaining to floodplain and drainage management, CDFW recommends prohibiting


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subdivision that would enable residential development in the 100-year floodplain.

- 8) To minimize the impacts of vegetation removal on aquatic and riparian habitat, CDFW recommends the City develop a standard requiring new building sites and associated defensible space to be placed outside streamside management areas and wetland buffers.
- 9) Ideally, planting palettes would incorporate locally appropriate native species, but at minimum, landscaping and vegetated LID features should avoid invasive species listed in the Cal-IPC Inventory.

If you have any questions, please contact Kathryn Rian, Environmental Scientist, by email at Kathryn.Rian@Wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Rebecca Garwood

Northern Region Coastal Habitat Conservation Program Manager

cc: State Clearinghouse
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Kathryn Rian, Michael van Hattem
California Department of Fish and Wildlife

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