CDFW Compliance Guidance

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CDFW Compliance Guidance Outline

1. Critical Species that Require Protection
2. Rural Land Use Impacts Associated with Development
3. CDFW’s Jurisdiction
4. Water Diversion: Surface Water, Springs, Wells
5. Water Storage: Ponds, Tanks
6. Stream Crossings: Culverts, Armored Fill Crossings
7. Violations
Coho Salmon – CA Threatened, Federally Endangered Species
Steelhead Trout – Federally Threatened Species
Salmonid Habitat and Status

- Coho salmon and steelhead trout emerge from eggs laid in the gravel in the late winter and rear in the summer in cold tributary streams in our region
- Cool water temperatures and adequate instream flows are required for healthy rearing and overall success survival
- Pool and riffle habitat in streams should be connected to allow for food drift and dissolved oxygen content to promote survival
- Populations continue to decline due to environmental degradation
Southern Torrent Salamander – CA Species of Special Concern
Southern Torrent Salamander: Habitat

- Found in shallow, cold, clear, well-shaded streams, waterfalls and seepages, particularly those running through talus and under rocks all year.
- Found in seeps and springs where people divert water.
- Occasionally found in riparian vegetation adjacent to water, but usually found in contact with water.
Why is this an Issue?

Degraded Watershed Health

• Cannabis is an unregulated industry
• Water Diversion occurs from springs and tributary streams
• Grading causes erosion
• Headwater Amphibians at Risk
• Nutrients delivery causes algal blooms
• Explosion in rural residential development directly related to cannabis cultivation
Rural Land Development Requirements

- Development of a water source
- Road building
- Stream crossings
- Grading
- Permits required to conduct the work
CDFW’s Authority

CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (FGC § 1802)
CDFW’s Authority

- Responsible Agency
  - California Endangered Species Act (CESA: FGC § 2081)
  - Fish and Game Code (FGC) that conserve the State’s fish and wildlife public trust resources
CDFW’s Authority

• Responsible Agency
  – Lake and Streambed Alteration Agreement Program (LSAA: FGC § 1600 *et seq.*).

Photo: JoAnn Dunn

Water drafting/diversion

Stream Crossings/Bridges

Stream Crossings/Culverts

Photo: JoAnn Dunn
CDFW’s Jurisdiction

• Includes all streams with a bed, bank and channel that transport sediment

Stream types include:
Class I – Fish bearing
Class II – Typically flow year round and support aquatic life (ex. spring)
Class III – Intermittent flow, dries up in the summer and may not flow without recent rain

• Includes lakes, ponds and wet areas
Example: Class III Streams = Small Watershed, Small Channel
Water Diversion Permitting

• If you are diverting from a stream or a spring than it is most likely you need a permit from CDFW

• If you have a well that is near a stream than you may need a permit from CDFW, off-set wells are good

• If you are diverting from a pond, wetland, or wet area, then you need a permit from CDFW

• If you are diverting from locations where fish or amphibians live, you will need to screen the intake with no greater than 3/32 inch material
Water Diversion Permitting

What does it include?

• CDFW regulates water diversion by ensuring bypass flows are adequate past the Point of Diversion (POD) ex. 90%

• Based on the site specific location of the POD’s and the water needs/availability, CDFW is likely to assign a forbearance (no diversion) period in lieu of the applicant conducting a bypass flow study

• To meet forbearance terms, water storage may be necessary and may come in the form of tanks or a pond

• Rate of diversion; slow is good
Water Diversion: Cistern is OK-Needs Cover
Water Diversion:
Screened Intake OK
Water Diversion: Spring Excavation Not OK = Violation
Water Use and Storage

• Water Use:
  - Estimated at 1.8 gallons per 10 square feet per day (WQ)
  - Estimated water need of 360 gallons per day for 2,000 square feet canopy
  - Estimated water need of 1,080 gallons per day for 6,000 square feet of canopy

• Water Storage to Meet 150 Day Forbearance:
  - 54,000 gallons for 2,000 square feet
  - 162,000 gallons for 6,000 square feet

How to Store Water? Tanks, pond, reduce use
Pond Construction

• On-stream Ponds:
  - May be allowed with engineering, geologic review and proper permitting (CDFW, WQ, County)
  - Permit issuance is much slower and cost is higher
  - Ponds may not be lined on-stream

• Off-stream Ponds:
  - Allowed with proper permits (CDFW, County)
  - Must not promote erosion

• Location
  - Shall not be located in a wetland
Pond Design

• Sizing
  - Pond should be sized to meet your water needs for storage of up to 180 days
  - Pond should be able to be drained should invasive bullfrogs be present to interrupt the life cycle

• Structural Integrity
  - Required to have an engineered spillway or overflow design
  - Must be designed by a licensed engineer
• Pond spillway shall be armored to dissipate energy of concentrated flow

• Spillway shall be sized to accommodate the 100 year storm
Google Earth Documents Time of Construction
Good Location for a Pond?
Stable?
Spillway Constructed as Designed?
Cracked Fill Face is a Bad Sign
Water Diversion:
Unpermitted On-stream Pond Not OK = Violation
No Spillway = Violation
Pond Built on Wetland = Violation
Pond is on stream = Violation
No Engineering = Violation
Pond Fail – Built on Spring
No Engineering, Expensive Liability
Stream Crossings: CDFW Permit Required
Stream Crossings Specifics: Culverts

- Culverts shall be sized to pass a 100-Year storm event and associated debris (ex. trees, branches)

- Culverts shall be set to grade, aligned with the natural stream channel, and extended beyond the fill slope (1-20’ stick will not do in most cases)

- Rock armoring required around the culvert to dissipate energy and reduce erosion

- Consult with a professional
Example Stream Crossing: Steep Terrain with Downspout and Energy Dissipater = Good
Example: Armored Culvert = Good
Armored Fill Crossing: No Culvert = Good
Culvert: Shot-gunned, no armor = Failure
Culvert: No armor, grading near stream = Violation
Culvert Failure Can Destroy Your Road
CDFW Fish and Game Code Code Violations

Site Inspection

• 1602: Unpermitted alteration of bed, bank, and channel (includes water diversion)

• 5650/5652: Pollution delivery to waters of the state

• 5937: Sufficient water for fish and amphibians below dam or POD

• 5901: To prevent or impede fish passage
Example: Pollutants near and in-stream
diesel fuel for generators
CDFW Fish and Game Code Code Violations

• CDFW is committed to working with people who want to become compliant

• CDFW expects compliance to be achieved as expeditiously as possible

• Cultivation area will often dictate the expected speed of remedial actions; the larger the canopy area, the faster we expect remediation

• It should be thought of as a business expense to protect the environment. Hire a consultant, they can help you
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