



## OFF-HIGHWAY MOTOR VEHICLE RECREATION COMMISSION

Redding, CA

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**STAFF REPORT:** State Vehicular Recreation Areas Wet Weather Closure Policies

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**SUBJECT:** SVRA Wet Weather Closure Policies

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### Summary

The purpose of this memo is to provide background information on wet weather closure policies at State Vehicular Recreation Areas (SVRAs). This memo describes the purpose and intent of SVRA wet weather closure policies, how they achieve public safety, and how they promote sustainable off-highway vehicle (OHV) road and trail management.

Several SVRAs have successfully implemented wet weather closure policies for many years. Of the nine SVRAs, four have closure policies triggered by rain events. Carnegie, Hollister Hills, Hungry Valley, and, most recently, Prairie City implement wet weather closures that are tailored to the regulatory setting and the unique management needs of the SVRA.

The wet weather closures are implemented when rain events occur that fully saturate soils. The closures aim to accomplish one or more of the following:

- Improve visitor and staff safety.
- Prevent damage to roads, trails, and other OHV facilities from accelerated, unnatural erosion.
- Reduce maintenance needs following storm events.
- Protect water quality.

SVRA wet weather closure policies accomplish multiple management goals and/or help ensure regulatory compliance. Adjusted management strategies based on informative monitoring, like a wet weather policy, demonstrates how a SVRA uses adaptive management to comply with the 2020 Soil Conservation Standard, enhance public safety, protect natural resources and/or adheres to various stormwater regulations.

### Discussion

Wet weather closure policies are implemented during and following rain events that reach certain trigger points. These policies are intended to protect water quality, to prevent damage to roads and trails from accelerated erosion, to enhance visitor safety, and to comply with 2020 Soil Conservation Standard. How closures are implemented differs between SVRAs but at a minimum each process has a closure trigger, a monitoring component, a list of OHV facilities are subject to closure, and the closure duration.

The complex geologic and topographic SVRA landscapes along with a variety of soil types and associated engineering properties create many instances in which a wet weather closure may be beneficial for the reasons listed above.

Clay soils, in particular, can be a management challenge at SVRAs. Due to their physical properties, clay soils can become very slick and nearly impassable when wet. Recreating on clay soils when fully saturated (i.e., presence of standing water) can damage roads and trails, can cause visitors to go off trail, can pose a safety risk to visitors, and can lead to erosion and water quality issues.

When a rain event occurs, qualified SVRA staff make recommendations for closures based on results of information gathered through monitoring conditions and/or rainfall data. Typically, closures occur when soils become saturated enough for sheet flow to occur and conditions limit the ability of first responder access. The expanse of a wet weather closure can be limited to a single trail, a resource management area or the entire SVRA. In general, the duration of a closure depends on several factors including the amount of rain received, damage from the rain event, temperatures following the rain event, and the slope and aspect of the closed area.

Additionally, as part of the 2020 Soil Standard compliance all SVRAs perform condition assessments following significant precipitation events to determine whether trail functionally and drainage control features have been impacted and if reconstruction repairs are warranted. These post storm inspections performed also consider public safety hazards and can lead to temporary closures even within SVRAs without a wet weather closure policy.

### ***Hungry Valley SVRA***

The 1981 Hungry Valley General Plan cites the use of seasonal closures to minimize erosion problems and costly maintenance within portions or the entire SVRA during and after periods of significant rainfall. The Gorman soils found throughout the park are susceptible to erosion due to hillside slopes and the sandy texture of many of the soil types.

- **Closure Trigger:** Observed conditions from park staff.
- **Closed Areas:** Closures usually begin in the northern portion of the park where clay soils are the predominate type. The north grasslands management unit where closures typically occur is approximately 2500 acres.
- **Reopening Policy:** When conditions permit following an inspection by park staff.

### ***Prairie City SVRA***

The 2016 General Plan identifies watershed management goals and sensitive areas that are subject to seasonal closure. Prairie City SVRA's official wet weather closure policy and process were implemented for the park on a January 2023 Posted Order. Closure factors considered seasonal precipitation totals, soil type, soil saturation/condition, presence of standing water, safety, and the imminent weather forecast.

- **Closure Trigger:** All closures are based on observed conditions in zones affected by the wet weather closure policy.

- **Closed Areas:** Areas subject to closures include Zone 4, portions of Zone 3, and the Oak Hill Trail Area. In total, 128 acres of PCSVRA is subject to closure or 20% of riding area.
- **Reopening Policy:** Conditions are assessed daily during wet weather closure and affected areas are reopened when conditions permit.

### ***Carnegie SVRA***

Past management practices at Carnegie SVRA led to the park's enrollment into the California State Water Quality Control Board non-traditional MS4 program to improve water quality. The wet weather policy for the park is specified in the 2012 Storm Water Management Plan that outlines how parks complies with the regulatory order.

- **Closure Trigger:** Closures are triggered when total rainfall reaches the following thresholds:
  - More than 0.30" in 12 hours
  - More than 0.50" in 24 hours
  - More than 0.65" in 48 hours
- **Closed Areas:** Park hills are subject to closure.
- **Reopening Policy:** The closure duration lasts until the following conditions are met:
  - Site conditions are safe,
  - No environmental or resource concerns exist,
  - Stormwater BMPs are functional and in good condition,
  - Trails for been closed for a minimum of 12 hours,
  - Trail slopes have dried sufficiently and soils are stable enough to support OHV use.

### ***Hollister Hills SVRA***

The 2001 amended General Plan recommended seasonal closures and restricting use during and after periods of sustained rainfall. The San Andreas Fault bisects Hollister Hills separating the park into two distinct soil types: soils southwest of the fault are derived from granite parent material, and soils northeast of the fault are sedimentary in nature and have a high clay content. The General Plan cited wet or saturated soils are susceptible to OHV impacts.

- **Closure Trigger:** Closures are trigger by observed current conditions by park staff and weather forecast.
- **Closed Areas:** The closures are subject to areas with the adobe clay soil type within areas in the Lower Ranch and the Hudner Ranch, or approximately half of the SVRA. Other facilities, such as the GP Track, are closed during wet weather.
- **Reopening Policy:** Conditions assessed daily by park staff during wet weather closure and the affected areas are reopened when conditions permit.

### ***Clay Pit SVRA***

No wet weather closure policy currently exists although the 2011 General Plan cites the potential use of “voluntary closures” around Adaptive Management Opportunity Zones and around areas experiencing heavy use. Clay Pit SVRA does become inundated periodically during periods of sustained rainfall and experiences high-flow events with backflow from the Feather River, but it is outside of the 500-year floodplain of the river. Park rangers can determine whether or not to open the entire SVRA on a day-to-day basis for public safety reasons during flood events.

### ***Oceano Dunes SVRA***

No wet weather closure policy currently exists. However, it is prohibited to cross Arroyo Grande Creek to access Oceano Dunes SVRA, when posted closed, or water depth is greater than twelve inches as measured closest to the ocean waterline.

### ***Onyx Ranch Eastern Kern, Ocotillo Wells and Heber Dunes SVRAs***

No wet weather closure policies currently exist for these SVRAs. Following a sizeable storm event, park staff assess roads and trails for erosion issues and potential public safety hazards resulting from the event. Certain areas of a SVRA may be closed by District Superintendent order or informally but usually, this represents a small area with detours available.

### **Conclusion**

Although the wet weather closure policies provide for resource protection and visitor safety, the closures are occasionally criticized for the time areas remain closed for following a rain event. After a rain event, closed areas are inspected for storm related damage such as landslides/sink holes, downed trees, areas of standing water, and whether muddy conditions exist.

In an effort to see if soil moisture could be a reliable indicator to determine when closures and subsequent reopening occurs, a soil moisture study was conducted at Prairie City and Carnegie SVRAs. The goal of this effort was to determine whether soil moisture meters could improve efficiency as a “trigger” for a wet weather closure. The study found that the use of the soil moisture meters were unable to produce actionable results to support SVRAs with making more real time decisions about open or close status. For that reason, SVRAs with wet weather closures policies continue to use staff field observations to determine when and how long areas are closed. No plans currently exist to test the efficiency of whether soil moisture meters can improve wet weather trigger closures at other SVRAs with wet weather closure policies.

### **Commission Action**

For information only.

### **Attachments**

None