Order No: R1-202X-XXXX

Attachment E: Tailwater Practice Menu for Compliance Pathway II

The following practices may be implemented as part of Compliance Pathway II to minimize and control the discharges of tailwater into Waters of the State.

I. Operational Irrigation Improvements

1. Shorten Set Times – reduce applied irrigation volume by ending each irrigation set earlier in the run
2. Tighten rotation timing – move water more frequently across pasture units to avoid prolonged saturation and runoff.
3. Improve Headgate Management – maintain or improve headgates to provide more precise opening/closing of diversion gates to reduce excess flow.
4. Shut off diversions when not needed – ensure diversion structures are closed immediately after the intended irrigation set has ended.
5. Match Irrigation to soil infiltration – Irrigate only as long as soils can infiltration applied water. Stop irrigation before runoff initiates.
6. Conduct irrigation when air temperatures and solar radiation is reduced, including in the evening or at night.

II. Irrigation Scheduling Based on Soil Moisture

1. Test soil condition - prior to irrigation, use simple field checks including probing, test hole digging, feeling for soil moisture, to determine if soil is ready for irrigation or remains moist from the last irrigation set.
2. Time irrigation based on soil condition - delay irrigation when soil remains moist from previous irrigation set or from overnight atmospheric conditions.
3. Adjust rotations based on weather - increase rest periods on cooler or days with lower evapotranspiration.

III. Pasture Management Practices to Reduce Runoff

1. Adjust grazing timing based on soil condition - reduce stocking or rest fields with compacted soils to improve water intake.
2. Maintain vegetated cover – minimizing bare mineral soil allows pasture grasses to filter sheet flow, slow runoff, and increase infiltration.

3. Be aware of topography - Apply irrigation to avoid topography that channelizes flow. Apply irrigation water to upper terraces first and allow slopes to sub-irrigate from the terraces above.

IV. Irrigation Flow Path Corrections

1. Break developing rills as observed – use hand digging techniques or light equipment to drag small soil ridges to guide and spread irrigation water.
2. Shape low spots or swales – use light equipment to ensure areas do not concentrate flow and instead spread flow evenly across the pasture.
3. Clear field debris – field debris can divert water into concentrated channels. Ensure irrigation water flows evenly and slowly across the surface and debris does not result in concentrated flow.
4. Cross-ditching to reduce sheet flow – increase the number of cross ditches in a field to minimize the length of sheet flow across a field, minimizing its exposure to solar radiation.

V. Reduce Water Delivery Variability

1. Inspect ditches – patch small leaks and remove obstructions.
2. Inspect field conveyance structures – ensure when water is pushed from the ditch to the field, the desired amount is directed into the field, and the field is not receiving more irrigation water than it can infiltrate.

VI. Coordination

1. Coordinate with neighbors, including coordinating start and stop times to match your infiltration capacity or skipping a set when a neighbor’s tailwater runs on and overwhelms a field, to reduce tailwater discharges off of a property.

VII. Avoid Irrigating High Risk Areas

1. Avoiding irrigating on narrow, steep, or fringe fields near the Riparian Zone with highly compacted soils.2. Manage areas near the riparian zone as dryland pasture instead of irrigated pasture to reduce tailwater discharge risk.