

## TECHNICAL MEMORANDUM

Project No. ~~23-1-099~~

TO: Justin Jenson

FROM: Eddy Teasdale, Pavan Dhaliwal

**SUBJECT: Flood Diversion Criteria and Process**

This document outlines the process for flood declaration within the County. This declaration is required to authorize the diversion of floodwater for groundwater recharge under California Water Code § 1242.1.

Under Executive Order N-16-25, the requirement that a local or regional agency must have either (1) an adopted a local plan of flood control pursuant to Section 8201” or (2) have considered flood risk as part of its most recently adopted general plan (Water Code § 1242.1, subdivision (a)(1)) has been suspended for counties designated as Proclaimed Drought Counties. As a result, local or regional agencies within the Proclaimed Drought Counties may trigger the remaining provisions of Water Code § 1242.1 without having an adopted flood control plan.

Because Tehama County is included among the Proclaimed Drought Counties, this suspension applies to the Tehama County FCWCD. In the absence of an adopted flood control plan, this document establishes the process for declaring a flood emergency and subsequently diverting floodwater for recharge purposes. Recognizing that Executive Order N-16-25 is temporary, a formal flood safety plan is currently under development.

### Process for Flood Declaration

The flood declaration process consists of six sequential steps. Each step is summarized below and described in greater detail in the sections that follow.

- 1) **Confirm Eligibility Conditions** – Verify that hydrologic, regulatory, and operational conditions meet the criteria for flood declaration
- 2) **Issue Public Notice** – Provide public notification of the flood declaration and intent to divert the floodwater for recharge
- 3) **Complete Diversion Readiness Checklist** – Confirm that diversion infrastructure, monitoring, and safety measures are in place
- 4) **Initiate Diversions** – Begin diverting floodwater in accordance with the approved criteria and operational limits
- 5) **Reporting and Documentation** – Document diversion activities, volumes, and conditions, and submit required reports
- 6) **Terminate Diversions** – Cease diversions once flood conditions no longer exist or triggering thresholds are no longer met

## 1) Confirm Eligibility Conditions

Diversions are authorized only when downstream flows at the point of diversion pose an imminent risk of flooding that could inundate critical infrastructure. To initiate diversions, all applicable conditions below must be met:

### Delta Excess Water Conditions

A diversion may occur only when the Sacramento-San Joaquin Delta is in excess water conditions, and either:

- (a) The Delta is without restrictions or
- (b) The Delta is operating with restrictions, provided that the Delta operations are limited solely by Old and Middle River flows (OMR) or San Joaquin River Inflow-to-Export ratio (SJR I/E);

*And one of the following hydrologic conditions must also be met:*

#### 1) Threshold Exceedance

Measured flows exceed the diversion thresholds identified in the Tables below; or

#### 2) Imminent Flood Risk

Surface water that has escaped from or is imminently likely to escape from a channel or waterbody causing or threatening to cause inundation of:

- residential or commercial structures, or
- roads needed for emergency response.

For purposes of this determination:

- “Likely imminent escape from a channel or waterbody” is demonstrated by measured flows in excess of the maximum design capacity of a flood control project, where present.
- Floodflow under this part of Section 1242.1 does not include flows that inundate wetlands, working lands, or floodplains, events that constitute a “design flood,” groundwater seepage, or waters confined to a “designated floodway.”
- “Imminent” means a high degree of confidence that a condition will begin in the immediate future.

Diversions must cease once flood conditions have abated to the point that there is no longer a risk of flooding and inundation of land, roads, or structures downstream of the point of diversion. Diversions are no longer authorized under Section 1242.1.

### Data Sources

- Delta conditions can be checked in real time using the following link: [Delta Operations Daily Summary.pdf](#) and compared to the conditions required above.
- Streamflow data can be accessed through the links provided in the tables below and compared to the listed thresholds.

### Diversion Threshold Calculations

- Two alternative approaches for defining diversion thresholds are described below:
  - Watershed analysis, which evaluated flood inundation based on stream elevation (currently completed for streams within the Los Molinos Subbasin); and
  - Water availability analysis, which evaluated hydrologic conditions supporting flows (currently completed for Thomas and Elder Creeks).

| Table 1. Diversion Thresholds Based on Watershed Analysis |                           |   |                    |
|---|---------------------------|---|--------------------|
| Creek   | Diversion Threshold (cfs) | Stream Gauge  | Methodology        |
| Deer Creek  | 13,574                    | <a href="#">USGS Gage 11383500 – Deer Creek near Vina, CA</a>             | Watershed Analysis |
| Mill Creek  | 12,222                    | <a href="#">USGS Gage 11381500 – Mill Creek near Los Molinos, CA</a>      | Watershed Analysis |
| Antelope Creek  | 5,125                     | <a href="#">USGS Gage 11379000 Antelope near Red Bluff, CA</a>            | Watershed Analysis |
| Cottonwood Creek  | 38,000                    | <a href="#">USGS gage 11376000 - Cottonwood Creek near Cottonwood, CA</a> | Watershed Analysis |

| Table 2. Diversion Table for Thomes Creek (cfs) Based on Water Availability Analysis.<br>Any daily flow exceeding the applicable month and date flows are available for diversion |      |      |      |      |     |      |      |      |      |
|---|------|------|------|------|-----|------|------|------|------|
| Thomes Creek at Paskenta – THO: <a href="#">Thomes Creek Stream Gauge Data</a>  |      |      |      |      |     |      |      |      |      |
| Day   | Dec  | Jan  | Feb  | Mar  | Day | Dec  | Jan  | Feb  | Mar  |
| 1   | 829  | 2802 | 1201 | 988  | 16  | 795  | 2058 | 1190 | 1420 |
| 2   | 718  | 544  | 1509 | 1007 | 17  | 855  | 2132 | 1468 | 1256 |
| 3   | 726  | 628  | 1280 | 1085 | 18  | 493  | 1892 | 1306 | 981  |
| 4   | 459  | 1642 | 1383 | 1156 | 19  | 957  | 1361 | 1296 | 1062 |
| 5   | 620  | 1397 | 1446 | 1139 | 20  | 969  | 1340 | 1649 | 1253 |
| 6   | 636  | 1059 | 2233 | 1345 | 21  | 1040 | 994  | 1744 | 1333 |
| 7   | 432  | 1219 | 2678 | 1034 | 22  | 1009 | 856  | 1143 | 1441 |
| 8   | 667  | 2011 | 1617 | 863  | 23  | 651  | 1141 | 1163 | 1170 |
| 9   | 559  | 1979 | 1555 | 911  | 24  | 417  | 844  | 908  | 1180 |
| 10  | 1119 | 1456 | 1410 | 1435 | 25  | 316  | 1097 | 667  | 1052 |
| 11  | 1154 | 1896 | 1141 | 1039 | 26  | 738  | 1377 | 869  | 878  |
| 12  | 619  | 2101 | 951  | 1069 | 27  | 2697 | 1223 | 1138 | 1014 |
| 13  | 722  | 1507 | 1035 | 1565 | 28  | 2132 | 1301 | 1325 | 985  |

| <b>Table 2. Diversion Table for Thomes Creek (cfs) Based on Water Availability Analysis.</b><br><i>Any daily flow exceeding the applicable month and date flows are available for diversion</i> |      |      |      |      |    |      |      |  |      |
|---|------|------|------|------|----|------|------|--|------|
| <b>Thomes Creek at Paskenta – THO: <a href="#">Thomes Creek Stream Gage Data</a></b>  |      |      |      |      |    |      |      |  |      |
| 14  | 1007 | 1737 | 1448 | 1610 | 29 | 1563 | 1546 |  | 1056 |
| 15  | 840  | 1987 | 987  | 1747 | 30 | 2613 | 1188 |  | 937  |
|   |      |      |      |      | 31 | 5497 | 942  |  | 1022 |

| <b>Table 3. Diversion Table for Elder Creek (cfs) Based on Water Availability Analysis.</b><br><i>Any daily flow exceeding the applicable month and date flows are available for diversion</i> |     |      |      |     |     |     |      |      |     |  |
|--|-----|------|------|-----|-----|-----|------|------|-----|--|
| <b>Elder Creek Near Paskenta – ECP: <a href="#">Elder Creek Stream Gage Data</a></b>   |     |      |      |     |     |     |      |      |     |  |
| Day  | Dec | Jan  | Feb  | Mar | Day | Dec | Jan  | Feb  | Mar |  |
| 1  | 216 | 404  | 560  | 569 | 16  | 245 | 1278 | 904  | 537 |  |
| 2  | 266 | 256  | 711  | 473 | 17  | 270 | 927  | 641  | 479 |  |
| 3  | 356 | 290  | 473  | 390 | 18  | 232 | 866  | 642  | 385 |  |
| 4  | 200 | 601  | 644  | 427 | 19  | 296 | 766  | 863  | 371 |  |
| 5  | 223 | 397  | 588  | 625 | 20  | 439 | 661  | 1004 | 476 |  |
| 6  | 275 | 329  | 682  | 517 | 21  | 502 | 563  | 858  | 569 |  |
| 7  | 253 | 509  | 1046 | 414 | 22  | 536 | 764  | 638  | 469 |  |
| 8  | 220 | 429  | 757  | 478 | 23  | 452 | 558  | 595  | 456 |  |
| 9  | 210 | 417  | 786  | 690 | 24  | 304 | 456  | 526  | 705 |  |
| 10   | 337 | 377  | 711  | 645 | 25  | 268 | 623  | 529  | 512 |  |
| 11   | 214 | 484  | 673  | 551 | 26  | 301 | 1040 | 598  | 515 |  |
| 12   | 165 | 953  | 745  | 483 | 27  | 465 | 727  | 537  | 546 |  |
| 13   | 185 | 836  | 722  | 394 | 28  | 399 | 761  | 595  | 505 |  |
| 14   | 201 | 1088 | 723  | 350 | 29  | 501 | 680  |      | 427 |  |
| 15   | 295 | 759  | 649  | 548 | 30  | 534 | 555  |      | 358 |  |
|  |     |      |      |     | 31  | 446 | 482  |      | 411 |  |

## 2) Issue Public Notice

Prior to initiating any floodwater diversions, public notice shall be issued by Tehama County FCWCD. The purpose of the notice is to inform the public and interested parties of the flood declaration and the intent to divert floodwater for groundwater recharge in accordance with applicable statutory and regulatory requirements.

Public notice may be provided through one or more of the following methods:

- Posting on the Tehama County FCWCG website
- Distribution via the District’s email notification system
- Use of the County’s emergency notification system, where appropriate; and
- Any other reasonable means of public notification deemed appropriate by the District

The notice should, at a minimum, include a description of the flood conditions, the location and purpose of the diversion, and the anticipated duration of diversion activities, if known. A template for this notice is provided below for consistency and ease of implementation.

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### Public Notice of Imminent Flood Risk & Diversion Activation (Template)

**Title:** Notice of Flood flow Diversions for Groundwater Recharge (Water Code § 1242.1)

**Date/Time:** [YYYY-MM-DD HH:MM]

**Agency:** [Flood District Name]

**Location(s):** [River/Reach; POD GPS coordinates]

**Basis for Imminent Risk:** Forecasted/observed flows exceeding **[flood stage or design capacity]** at **[gauge/channel]**; threat to **[land/roads/structures]** downstream.

**Action:** Begin diverting through existing diversion infrastructure to designated recharge areas to reduce flood impacts and recharge groundwater.

**Trigger Metric:** Activation at **[gauge/flow level]**; suspension expected when flows drop below **[threshold]**.

**Schedule:** Diversions expected **[start]** to **[end]**; standing water may persist **[duration]** in recharge fields.

**Contacts:** [Flood District contact]

**Legal Reference:** California Water Code § 1242.1; Executive Order N-16-25

**Website Updates:** Changes, including cessation, will be posted at **[URL]**.

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### 3) Diversion Readiness Checklist

The Diversion Readiness Checklist is intended to ensure that all floodwater diversions are implemented safely, in an environmentally protective manner, and in compliance with the law. Prior to initiating any diversion activities, the responsible agency shall review and confirm each item on this checklist to verify that the diversion infrastructure, operational practices, and receiving areas meet applicable requirements. Completion of this checklist helps minimize risks to public safety, water quality, aquatic resources, and critical infrastructure, and ensures that floodwater diversions are conducted consistently with Water Code § 1242.1 and related regulatory guidance

The following criteria must be reviewed and satisfied prior to initiating any floodwater diversion activities:

1. Only existing diversion infrastructure or temporary pumps can be used for diversions
2. Protective screens must be used on temporary pump intakes to minimize impacts to fish/aquatic life. Screens need to meet the following criteria:
  - a. Be constructed of any rigid material, perforated, woven, or slotted, that provides water passage while physically excluding fish
  - b. Be parallel to the flow and adjacent to the water's edge
  - c. Minimize eddies in the transition zones upstream of, in front of, and downstream of the screen
  - d. Minimize entrainment to the degree feasible
3. Flood water may not be diverted to the following:
  - a. Barns, ponds, or lands where:
    - i. Manure/waste from an animal facility that generates waste from the feeding/housing of animals in a confined area
    - ii. Operates more than 45 days per year
    - iii. Is not vegetated
  - b. Agricultural fields that have been identified as an outlier with respect to nitrogen application by any of the following:
    - i. The State Water Board § a Regional Water Board
    - ii. An agricultural coalition charged with the implementation of the Irrigated Lands Regulatory Program
  - c. Uncultivated Areas:
    - i. Areas not cultivated within the previous three years
    - ii. Examples: grazing lands, annual grasslands, natural habitats
    - iii. Exceptions (recharge allowed): existing facilities constructed for the purpose of groundwater recharge or managed wetlands
  - d. Areas where diversions or recharge could exacerbate the threat of flood or potentially damage:
    - i. Critical levees or other infrastructure
    - ii. Wastewater/drinking water systems § drinking water wells/supplies

#### 4) Start Diversions

Once all diversion criteria have been met and the diversion readiness checklist has been fully reviewed and satisfied, floodwater diversions can commence. Diversions shall be conducted using the approved infrastructure and in accordance with conditions identified in the flood declaration and public notice.

There is no specific volume limit on the amount of water that may be diverted during an authorized flood event, provided that the diversions are limited to floodwater and do not exacerbate downstream flooding, threaten public safety, or impact critical infrastructure. Diversions must be immediately ceased upon issuance of a cessation notice, as described in Item 6.

All diverters are required to comply with the State Water Board reporting requirements under Water Code § 1242.1. Specifically, each diverter shall submit the following reports to the State Water Board:

- Notice of Floodwater Diversion
- Initial Floodwater Diversion Report, and
- Final Floodwater Diversion Report

These reports must be submitted in accordance with the State Water Board guidance and applicable timelines (See Section 5 below).

## 5) Reporting and Documentation

Diversions need to be reported as required by the State Water Board. Three different reports need to be filed with the State Water Board and GSA:

**Notice** – this needs to be submitted at least 48 hours before diverting, if possible, but no later than 48 hours after diversions begin.

**Initial Report** – this needs to be submitted no later than 14 days after diversions begin.

**Final Report** – this needs to be submitted no later than 15 days after diversions end.

Forms for these reports are available at the following link: [flood-recharge-diversions-form.pdf](#) and can be submitted to [FloodDiversion@waterboards.ca.gov](mailto:FloodDiversion@waterboards.ca.gov).

Information required for the reports includes, but is not limited to, information about the diverter, date diversions began, location of diversions, flood threshold, location of notice, location of diversion, location of water application, estimated amount diverted, and date of cessation of diversions.

## 6) Stop Diversions

Once flood conditions have abated and the risk of downstream flooding or inundation no longer exists, all floodwater diversions shall cease, and a formal cessation notice shall be issued. This notice serves to inform the public and participating diverters that diversions are no longer authorized under Water Code § 1242.1.

Consistent with the issuance of the flood declaration and diversion notice, the cessation notice shall be distributed through one or more of the following methods:

- Posting on the Tehama County FCWCD website;
- Distribution via the District's email notification list;
- Use of the County's emergency notification system, where appropriate; and
- Any other reasonable means of public notification deemed appropriate by the District.

A template cessation notice is provided below for consistency and ease of implementation.

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### **Cessation Notice (Template)**

**Title:** Cessation of Flood flow Diversions (California Water Code § 1242.1)

**Date/Time:** [YYYY-MM-DD HH:MM]

**Agency:** [Flood District Name]

**Statement:** Flood conditions have abated below **[Action/Monitor Stage or design capacity]** at **[gauge/channel]**; diversions ceased at **[time]**. No imminent risk to downstream land, roads, or structures exists.

**Notes:** Standing water in recharge fields may remain for **[hours/days]**.

**Contacts:** [Flood District contact]

**Legal Reference:** California Water Code § 1242.1; Executive Order N-16-25

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### ***Additional Resources***

The information and procedures described in this document are informed by, and in part adapted from, technical guidance issued by the Division of Water Rights and Executive Order N-16-25. These sources provide statutory interpretation, implementation guidance, and procedural framework governing floodwater diversion for groundwater recharge under California Water Code § 1242.1

The primary reference documents include:

- Technical Guidance Water Code 1242.1 - Flood Diversions for Groundwater Recharge
  - Link: [1242-1-tech-guidance.pdf](#)
- Executive Order N-16-25
  - Link: [Executive-Order-N-16-25-FINAL.pdf](#)