



# Transportation Department

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## GENERAL FLOODPLAIN DEVELOPMENT PERMIT 2016-1

Per the authority granted in the Boulder County floodplain regulations, Section 4-404.1 of the Land Use Code, and having considered each of the review criteria listed in Section 4-404.1(B), the County Engineer hereby determines that the activities described below are appropriately regulated under a General Floodplain Development Permit ("FDP") so long as they are conducted in conformance with the conditions stated in section 3 below.

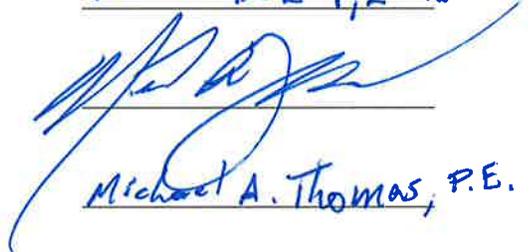
**Date Posted:**

October 17, 2016

**This General FDP is deemed in effect as of close of business on this date:**

NOVEMBER 1, 2016

**Signature of County Engineer:**

  
Michael A. Thomas, P.E.

**Printed name:**

### Notice and Comment Period

This General FDP shall be posted on the County Transportation Department website as of the "Date Posted" specified above. Notice to the public will also be provided in the manner described in Article 3-205 of the Land Use Code for comprehensive rezonings. The County Engineer will accept written public comment on this General FDP for 14 days after the date posted.

*\*\*\* Next section to be completed by County Engineer at the end of the 14-day period. \*\*\**

### Final Determination on this General FDP

Check the applicable box (only one):

- The County Engineer received no written comments during the 14-day notice period. This General FDP is deemed in effect as of close of business 14 days after the "Date Posted" shown above.
- The County Engineer received one or more written comments during the 14-day notice period. No changes to the terms and conditions of this General FDP were made in response to these comments. This General FDP is deemed in effect as of close of business 14 days after the "Date Posted" shown above.
- The County Engineer received one or more written public comments during the 14-day notice period.
  - o Having determined their consistency with the review criteria in Section 4-401.1(B), the following changes were made in response to public comments:  
-1(a), 2(a): added cross-culverts

1(f), 2(d): changed fish 'ladders' to fish 'passage'

-1(f): removed 'necessary to maintain water rights' and updated language to reflect trigger for Individual FDP

-1(g): clarified that conversion of open ditches to buried pipeline only requires notice if the project will take place in the regulatory Floodway

-1(h): clarified language such that notification is required for maintenance activities in or along a stream channel greater than 300 feet from infrastructure. Maintenance of infrastructure itself is covered under 2(d)

-1(i): added 3-foot diameter threshold trigger for new measuring devices

-2(d): clarified that maintenance of water delivery/ditch system infrastructure, including ditches, does not require notice under the General FDP. Clarified that maintenance activities in or along a stream channel less than 300 feet from infrastructure does not require notice

-2(e): clarified that new measuring devices less than 3 feet in diameter do not require notice

-2(f): updated language to clarify intent (specific to easements/ROWs)

-2(h): updated language to clarify intent (sediment removal outside of stream channel)

-3(f): removed unnecessary language (Maintenance definition takes precedence)

-3(j): added clarifying examples

-3(k): changed 'must' be relocated to 'should' be relocated

1. Activities Requiring Notice. The following activities require written notification be submitted to the County Engineer 21 days prior to commencement, which notification must comply with the requirements of Section 4-404.1(D)(2):
  - a) Road and trail widening, surface type changes, replacement of cross-culverts greater than 48 inches in diameter, and overlays of greater than six inches measured vertically. An Individual FDP is required if fill is necessary for widening.
  - b) New parking lots greater than 0.1-acre.
  - c) New underground utilities that do not permanently alter topography and are:
    - i. Greater than 250 feet in length and installed perpendicular to flood flows; or
    - ii. Installed under a perennial stream channel.
  - d) Temporary in-stream diversions or dewatering (limited to temporary construction diversions and temporary diversions to maintain water rights; under the General FDP, the dewatered reach must not exceed 300 feet, and may require additional permitting through the Colorado Department of Public Health and Environment).
  - e) In-kind replacement of public and private storm drainage system or infrastructure components including but not limited to hydraulic structures such as culverts and check dams. An Individual FDP is required for all replacement bridges. An Individual FDP may also be required if physical conditions of the channel have changed to the extent that in-kind replacement is not possible and/or if Boulder County requires replacement with a different design, size, and/or new component.
  - f) In-kind replacement of public and private water delivery and ditch system infrastructure and components, including but not limited to headgates, diversions, ditches, flumes, sand gates, fish passage, wells, and pumps; provided, however, that an Individual FDP may be required if physical conditions of the channel have changed to the extent that in-kind replacement is not possible, or if a design change is desired for other reasons.
  - g) Conversion of open ditches to buried pipeline, when the section of ditch to be buried is located in the regulatory Floodway.
  - h) Maintenance activities associated with water delivery or ditch system function, where such work occurs in or along a perennial stream channel more than 300 feet upstream or downstream of the nearest water delivery/ditch system structure or component.
  - i) Installation of new water measuring devices and their housings that are greater than 3 feet in diameter (if the County Engineer determines that a device/housing creates a significant obstruction to flood flows, an Individual FDP may be required; in addition, devices to be installed in the channel require an Individual FDP).
  - j) Private storm drainage infrastructure Maintenance.
  - k) New fences that comply with County fence requirements (available at the Land Use Department upon request) as well as maintenance and/or repair of existing

legal fences. Fences that are to be oriented perpendicular to flood flows may require an Individual FDP.

2. Activities Not Requiring Notice. The following activities do not require notification be submitted to the County Engineer prior to commencement:
- a) Road, trail, parking area, and driveway patching, sealing, milling, dirt/gravel leveling, replacement of cross-culverts less than 48 inches in diameter, and repair of drainage-related damage to match adjacent grade within 6 inches, measured vertically. .
  - b) New driveways, trails, sidewalks, roads and streets constructed completely at-or-below existing grade.
  - c) Maintenance of public drainage system infrastructure and components, including but not limited to roadside ditches, bridges, culverts, and check dams, where such work occurs within 300 feet upstream or downstream of the nearest drainage system structure or component.
  - d) Maintenance of water delivery or ditch system infrastructure and components, including but not limited to diversions, ditches, erosion and sediment control devices, headgates, sand gates, measuring devices and their housing structures, flumes, siphons, wells, pumps, and fish passage, as well as perennial stream channel maintenance associated with water delivery or ditch system function. Work within or along a perennial stream channel is limited to within 300 feet upstream or downstream of the nearest water delivery/ditch system structure or component.
  - e) In-kind replacement of water measuring devices and their housings, as well as installation of new water measuring devices and their housings less than 3 feet in diameter (devices to be installed in the channel require a General FDP).
  - f) Maintenance of utility and water delivery system/ditch easements and ROWs, including, for example, access road maintenance, repairs or resurfacing.
  - g) Replacement guardrails that are no more than 6-inches taller than the previous existing or designed guardrails, and that do not decrease the available conveyance of floodwaters; (new guardrails or replacement guardrails that do not meet the above criteria require an Individual FDP).
  - h) Removal of flood-deposited sediment from the overbanks and floodplain areas (outside of a perennial stream channel), of an amount 6 inches or less in height (greater than 6 inches requires Individual FDP). Sediment removal associated with storm drainage system and water delivery infrastructure is covered elsewhere in this General FDP (2016-1) as Maintenance.
  - i) Removal of debris limited to large, woody, unanchored or dead vegetation and rubbish as defined in Article 14.
  - j) New overhead utilities, including supporting structures, as well as maintenance of overhead utilities.
  - k) New underground utilities that do not permanently alter topography more than 6 inches vertically, and are:
    - i. Less than 250 feet in length; and
    - ii. Installed parallel to flood flows.

- l) Maintenance of underground utilities (work must not permanently alter topography).
- m) Installation, repair, or replacement of sign or mailbox posts, telephone poles, or similar elements not greater than 3 feet in diameter, unless more than 5 such elements are located together in a manner that could create an obstruction.
- n) Repair or replacement of existing piers or posts supporting a conforming deck.
- o) Activities associated with construction stormwater BMPs, including but not limited to temporary erosion control measures, etc.
- p) General farming, pasture, horticultural activities, and forestry that do not involve earthwork that permanently alters the topography or any clearing/grubbing of an area greater than 0.1 acres. For projects involving fences associated with farming, pasture, horticultural activities, please see item 1(j) of this General FDP (2016-1).
- q) Temporary buildings or structures associated with general farming, water delivery systems, pasture, horticulture, and forestry activities that do not exceed 120 square feet (200 square feet for loafing sheds) and are outside of the Floodway.
- r) Repairs necessary to correct existing violations of Boulder County health and safety codes or to ensure safe and healthy living conditions, such as:
  - i. Electrical repairs;
  - ii. Furnace repairs or replacements;
  - iii. Water heaters, boilers, and evaporative cooler repairs or replacements;
  - iv. Air conditioner repairs or replacements;
  - v. Repairs or replacements to roof coverings; and
  - vi. Insulation or simple weatherization or energy efficiency upgrades.
- s) Gardening and landscaping activities, including but not limited to planting new vegetation, revegetation, mulching, and raised beds. Raised beds in the Floodway that are greater than 6 inches tall require an Individual FDP. (Hardscaping such as retaining walls, terraces, etc. are not covered by the General FDP and require an Individual FDP.)
- t) Lawns and lawn maintenance activities.

3. Conditions Applicable to Activities Authorized Under this General FDP.

- a) It is the Permittee's responsibility to comply with the requirements of Section 404 of the Clean Water Act and Sections 7 and 9 of the Endangered Species Act of 1973, or with any other applicable federal, state, or local laws, criteria, or regulations. Which may include: the Boulder County Land Use Code, the Boulder County Storm Drainage Criteria Manual, and the Boulder County Multimodal Transportation Standards.
- b) All required local, state, and federal permits must be obtained prior to beginning work.
- c) Permanent placement or storage of materials, outside of that allowed under the General FDP may not occur in the regulatory Floodway without the issuance of an Individual FDP.

- d) Construction equipment, material, and waste should be located outside the regulatory floodplain when not in use.
  - e) Maintenance of public drainage system infrastructure and components must match the most recent County-approved design, flow condition, and vertical grade.
  - f) Maintenance of water delivery / ditch system infrastructure and components must not alter the historical elevation profile.
  - g) Maintenance must not lower the normal channel invert elevation.
  - h) All work covered by this General FDP, when applicable, must use flood-resistant materials (in-accordance with FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements) up to the Flood Protection Elevation (FPE) as-defined in Boulder County Land Use Code Section 4-405(A).
  - i) Utilities installed in accordance with the General FDP (such as underground utilities) that are below the FPE must be designed such that flood waters cannot enter the utility components.
  - j) All work covered by this General FDP, when applicable (i.e., utility support structures, bridge abutments, other hardened structures), must be designed (and, if necessary, anchored) to withstand the forces associated with a 100-year flood event.
  - k) Temporary buildings allowed under this General FDP should be deconstructed or relocated outside of the floodplain in the event of a flood warning.
  - l) In the event of any change or modification to a use or activity permitted hereunder that is likely to be in conflict with the criteria established in Section 404.1(B) of the Boulder County Land Use Code, the County Engineer must be notified of the change and the modification approved prior to continuing work. Modifications may require an Individual FDP as determined by the County Engineer.
4. Duration. This General FDP remains in effect until further notice.
5. Definitions.
- a) For the purposes of this General FDP 2016-1, Maintenance means any routine or regularly-scheduled activity undertaken to repair or prevent the deterioration, impairment, or failure of any utility, structure, or infrastructure component. Maintenance includes activities to restore or preserve function and/or usability of a storm drainage, water delivery, or ditch system. Such activities may include, without limitation, the removal or movement of sediment, debris, and vegetation, installation of erosion and sediment control devices, stabilization of stream channel and/or water delivery channel (ditch) banks, and the replacement of structural components, so long as the work substantially conforms to the most recent County-approved design, flow condition, and vertical grade, as applicable. Maintenance does not include expansion or enlargement of a building or structure, Substantial Modifications, Substantial Improvements, total replacement of existing facilities, or total reconstruction of a facility.
  - b) For definitions of other terms used herein, e.g., "Floodway," see Section 4-414.