

ADMINISTRATOR'S MEMORANDUM
Floodplain Management Memorandum No. 1

To: Floodplain Management Staff

From: Mat Weaver



RE: NFIP IRRIGATION AND DRAINAGE PERMIT GUIDANCE

Date: February 28, 2019

1. Background

The United States Congress adopted the National Flood Insurance Act in 1968 creating the National Flood Insurance Program ("NFIP"). In part, the NFIP encourages state and local governments to (1) regulate land-use to constrict the development of land exposed to flood damage and minimize flood damages; and (2) guide the development of future construction, where practicable, away from locations threatened by flood hazard. 42 U.S. Code § 4001(e). To enable State and local governments to "guide the development of future construction" the NFIP implementing regulations require communities to permit all proposed construction or other development in the community. 44 CFR § 60.3 (a) (1), (b) (1), (c) (1), (d) (1), (e) (1), and (f) (1). 44 CFR § 59.1 defines Development as *any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.*

To support the NFIP in Idaho, Idaho Code § 46-1022 encourages and authorizes local governments to regulate floodplains within their jurisdiction. In 2010, I.C. § 46-1022 was amended so that floodplain zoning ordinances could not regulate "operation, cleaning, maintenance, or repair of any ditch, canal, lateral, drain, diversion structure or other irrigation or drainage works." In addition, in 2010, the definition of development in I.C. § 46-1021(1) was amended to exclude "operation, cleaning, maintenance, or repair of any ditch, canal, lateral, drain, diversion structure or other irrigation or drainage works."

Executive Order No. 2015-06 designates the Idaho Department of Water Resources ("IDWR") as the agency "to lead State implementation and administration of the National Flood Insurance Act of 1968 and 44 CFR §60.25, Rules and Regulations of the Federal Insurance Administration." State wide coordination of the NFIP in Idaho is carried out by the IDWR Floodplain Coordinator ("State Floodplain Coordinator").

2. Purpose

The 2010 amendment of I.C. §§ 46-1021(1) and 46-1022 created a potential contradiction between the Code of Federal Regulations and Idaho Statutes with respect to the permitting

of irrigation and drainage activity as development in the Special Flood Hazard Area ("SFHA") or mapped floodway. This memo addresses and sets forth a means to resolve the potential conflict by clearly drawing a line between those irrigation and drainage related activities that require an NFIP permit and those "operation, cleaning, maintenance, and repair" activities that do not. In addition, this memo describes a *General Irrigation Floodplain Development* ("GIFD") permit that local governments can use to collectively permit a group of irrigation and drainage related activities under a single permit for a defined multi-year period of time.

The State Floodplain Coordinator should encourage local communities with irrigation and drainage systems located within its regulated SFHAs or mapped floodways, to adopt the definitions in this memorandum as well as the GIFD permit. Adoption of the GIFD would supplement local community floodplain regulations and clarify when irrigation or drainage activities require floodplain development permits. If there is any discrepancy between adopted guidance and floodplain regulations, the provisions of the floodplain regulations shall control.

In addition, the State Floodplain Coordinator can direct local floodplain administrators ("Floodplain Administrators" or "Floodplain Administrator") to the guidance in this memorandum to determine if activities or projects undertaken by an irrigation or drainage entity in the SFHA and any mapped floodway qualify as "operation, cleaning, maintenance, or repair" as referenced in Idaho Code §§ 46-1021(1) and 46-1022. Activities that qualify as operation, cleaning, maintenance, or repair are by definition not development, and therefore do not require an NFIP local community permit.

3. Definitions

The following floodplain management definitions apply when reviewing irrigation or drainage entity activities that occur within the SFHA as defined by local community floodplain ordinances.

Base Flood Elevation ("BFE") - See definition in 44 CFR § 59.1

Channel - See "Irrigation and Drainage Channel"

Cleaning - Mowing, cutting, or burning of weeds, trees and other nuisance growth, including algae growth, application of pesticides as permitted, removal of beaver dams, and removal of trash or other debris whether floating, lodged or otherwise obstructing the conveyance of water flow through channels and works.

Dredging - The removal of sediment from the bottom of irrigation and drainage channels and works.

Existing structure - A structure, or part of a structure, in place prior to the effective date of a

local community's NFIP Flood Insurance Rate Map ("FIRM") and Flood Insurance Study ("FIS") that is used by an irrigation or drainage district entity in its normal operations.

Existing State – The condition of an irrigation or drainage channel, irrigation and drainage works, roadway, structure, or appurtenance as it existed prior to the effective date of a local community's NFIP FIRM and FIS that is used by an irrigation or drainage district entity in its normal operations.

Fill - The placement of material (from any source, including the subject property) in or adjacent to a channel that raises the ground (natural grade).

Floodplain Administrator - The individual appointed to administer and enforce the floodplain management regulations or ordinances of a local community.

Floodway or Regulatory Floodway – See definition in 44 CFR §59.1

Grading - As it applies to irrigation, is the shaping and levelling of channels, channel banks, and service roads, usually by earth-moving equipment such as graders.

In-Kind Replacement – the replacement of an existing structure with a new structure, where the new structure is located at the same location (horizontally and vertically) as the existing structure and has substantially the same dimensions as the existing structure. For the purposes of this definition, "substantially" is defined as new dimensions within plus or minus 10% of existing dimensions; provided the in-kind replacement does not result in an expanded encroachment from the existing structure and condition. In addition, in-kind replacements cannot be stacked over a period of time to create or increase an encroachment.

Irrigation or Drainage Channel - A man-made or natural channel used to convey or deliver water for irrigation, drainage, or other uses, by irrigation districts, canal companies, lateral associations, drainage districts, or other water delivery entities. Irrigation and drainage channels include man-made canals, ditches, laterals, culverts, flumes, tiled drains, pipes, storage reservoirs, and natural channels (including reservoirs on natural channels), used to convey storage or other sources of water owned or controlled by an irrigation or drainage entity.

Irrigation and Drainage Works - Man-made structures used to divert, regulate, and measure water from natural channels (streams, rivers, lakes, and springs) and in man-made irrigation and drainage channels. Irrigation and drainage works include diversions or regulation structures, including but not limited to control gates or head gates, check dams or diversion dams, culverts, measuring devices and their housing (including stilling wells and staff gages), flumes, siphons, pumps, pipes, protective structures, energy dissipaters, fish passage structures, and trash screens or trash racks.

Maintenance - The act of ongoing upkeep of existing structures required to keep channels in

a condition adequate to support the conveyance of irrigation and drainage water (this does not include the complete replacement or substantial replacement of an existing structure). Maintenance is further defined as the care or upkeep of channels, works, appurtenances, easements, utility corridors and property; to keep in an existing state, specified state of repair, and efficiency; return to a former condition, elevation, place, and position; to preserve from failure or decline; or repair or renovate so as to return it to its original condition. Maintenance does not include dredging as defined herein.

Operation – The regular and reoccurring performance of typical work by an irrigation or drainage entity including, but not limited to: the delivery or drainage of water, measurement of water, and adjustment of irrigation and drainage works and all related appurtenances.

Repair - The restoration to good or sound conditions of any part of an existing structure, channel, channel bank, or service road for the purpose of maintenance (this does not include the complete replacement or substantial replacement of an existing structure). Repair does not include dredging as defined herein.

Replacement - Substitution of any item, structure or works with a similar or different, inferior or superior, item, structure or works.

Special Flood Hazard Area ("SFHA") – See definition in 44 CFR § 59.1

State Floodplain Coordinator - The State Floodplain Coordinator coordinates compliance and educational outreach activities in Idaho for the National Flood Insurance Program (NFIP).

Works - See "Irrigation and Drainage Works"

4. Floodplain Development Permits Related to Irrigation Activities and Development

4a. Permitting Overview

FEMA requires all communities that participate in the NFIP to regulate "Development" that occurs within the SFHA. FEMA defines Development as *any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations or storage of equipment and materials*. This definition creates administrative and compliance challenges for communities due to its potential broad applicability, especially when considering irrigation and drainage systems. Activities occurring in irrigation and drainage systems fall within a wide spectrum, with some activities requiring no permitting on one end and other activities requiring the issuance of an individual Floodplain Development Permit on the other end.

FEMA has issued prior guidance¹ giving communities some flexibility to avoid permitting

¹ "A Summary of NFIP Policy for Local Officials". FEMA Region 10, June 30, 2001 (updated January 2004).

development when it does not affect water surface elevations or increase flood damages. The policy states that permit requirements can be related to the type and magnitude of the activity, as well as to its location. Furthermore, Idaho Code § 46-1021 excludes “operation, cleaning, maintenance, or repair of any ditch, canal, lateral, drain, diversion structure, or other irrigation or drainage works” from the definition of Development as it applies to the NFIP.

In order to avoid undue hardship within local communities and irrigation entities, while still complying with FEMA regulations regarding Floodplain permitting, the Floodplain Administrator may issue an irrigation system-wide GIFD permit which covers many different irrigation and drainage uses or activities that qualify as Development over a specified period of time.

Consistent with the preceding discussion, activities occurring in irrigation and drainage systems must be reviewed by the Floodplain Administrator to determine if the activities are: (1) non-development activities requiring no permit; (2) development activities that can be grouped together under a common GIFD permit; or (3) development activities requiring an individual Floodplain Development Permit (“individual permit”). Activities falling under (2) or (3) must be permitted before work can begin.

Implementation of the guidance in this memorandum should reduce confusion and conflict between irrigation or drainage entities and Floodplain Administrators over the permit requirements for the operation, maintenance, cleaning, or repair of irrigation and drainage facilities. However, if a dispute between an irrigation or drainage entity and the Floodplain Administrator does arise as to the permit requirements for a specified activity, the IDWR State Floodplain Coordinator should counsel the parties to the matter. The State Floodplain Coordinator will apply their experience, expertise and resources to answer questions and amicably resolve disputes. The State Floodplain Coordinator may consult with FEMA to resolve disputes.

4b. Activities that do not require a floodplain development permit

Consistent with Idaho Code §46-1021 and §46-1022, operation, cleaning, maintenance or repair of any ditch, canal, lateral, drain, diversion structure or other irrigation or drainage works, as defined within this memorandum, do not constitute development under Idaho law and therefore do not require either a GIFD permit or an individual permit. The below list delineates some activities that do not require a permit. The list is not exhaustive. Floodplain Administrators must exercise their professional judgement when reviewing activities to determine whether they require a permit. The State Floodplain Coordinator should work with Floodplain Administrators to help determine permit necessity if there is doubt.

Examples of activities and projects that do not require floodplain permitting.

- a. General farming, pasture, horticultural and forestry activities that do not involve earthwork that permanently alter the topography or any clearing/grubbing of an area.
- b. Grading of existing roads or easements along or near channels and within the SFHA,

- when the grading does not add fill within the regulatory floodway or SFHA.
- c. Maintenance of underground utilities (work must not permanently alter topography).
 - d. In-kind replacement of existing piers or posts supporting a conforming deck.
 - e. Activities associated with land-surface construction stormwater Best Management Practices (“BMP”), when the measures are temporary in nature (i.e. not in place for longer than 180 days) or do not increase the BFE. Examples of stormwater BMP activities that do not require a permit include the following: dust control; materials and equipment covers; mulching; geotextile fabrics; matting; bio-filter bags; fiber rolls; silt fences; vegetative buffer strips; temporary swales; and temporary berms.²
 - f. New installation or maintenance of non-solid fences constructed parallel to the flow of water during a flood event. Non-parallel or solid fences that block the flow will need to go through the individual permitting process.

4c. General Irrigation Floodplain Development Permit

The intent of the GIFD permit is to collectively authorize low-to-no impact irrigation and drainage development activities or uses in the floodplain which inherently do not increase the BFE. GIFD permits apply to all qualifying activities within the spatial extents of an irrigation delivery or drainage system and within the regulatory floodway or SFHA, over a predetermined period of time, not to exceed five years. Issuance of a GIFD permit requires coordination between the irrigation entity and the Floodplain Administrator.

GIFD permits are advantageous to both the Floodplain Administrator and to the irrigation entity seeking the permit because it consolidates the permitting of many typical and diverse irrigation and drainage development activities under a single permit, and it streamlines review and permit coordination between the Floodplain Administrator and the applicant.

When issuing a GIFD permit, Floodplain Administrators should use the following or similar process:

- a. Initial consultation, in-person meeting between the Floodplain Administrator and the irrigation entity.
- b. Submittal by the irrigation entity of the following materials prior to consultation visit:
 - i. Service area map with delineated activities;
 - ii. A timeline identifying the sequence and timing that proposed activities will occur (not to exceed five years); and
 - iii. Supporting documentation, as needed.
- c. Floodplain Administrators shall timely review submitted material and ask for additional documentation as needed.
- d. Floodplain Administrators shall timely review submitted material and identify

² For review of typical Stormwater BMPs employed in Idaho, refer to the Idaho Department of Environmental Quality’s *Catalog of Stormwater Best Management Practices for Idaho Cities and Counties*.
<http://www.deq.idaho.gov/media/622263-Stormwater.pdf>

any activities that require an individual permit.

- e. Floodplain Administrators shall issue a GIFD permit.
- f. The irrigation entity shall notify the Floodplain Administrator when changes to activities permitted under a GIFD are anticipated.

Listed below are examples of low-to-no impact irrigation and drainage development projects that can be permitted under a GIFD. This is a non-exhaustive list. Floodplain Administrators may review these types of projects and assess whether they cause any measurable increase to a BFE or flood elevation.

Upon review of the proposed activities and projects, the Floodplain Administrator will assess whether or not they fall, in whole or in part, under the GIFD permit, and whether any components require an individual permit and notify the applicant in writing accordingly.

The Floodplain Administrator shall advise the applicant or project sponsor of their assessment via written notice (email is preferable). The Floodplain Administrator shall maintain a copy of all proposed project notifications and responses.

The GIFD permit does NOT include the following types of development activities and projects:

- fill, except as outlined in the examples below;
- new construction, or replacements that do not meet the in-kind definition;
- activities or projects that trigger any requirement found in the local floodplain management or NFIP regulations; and
- activities or projects that increase flood damage and/or increase exposure to flood hazards.

Examples of GIFD permit activities and projects:

- a. Dredging and grading of irrigation and drainage channels, when the fill from dredging or grading is not deposited on the banks of channels or anywhere within the regulatory floodway or SFHA for longer than 10 days.
- b. Seasonal grading within natural stream channels to check or direct water into irrigation facilities (i.e. earthen “push-up dams” and “wing dams”).
- c. Deposition of fill within the SFHA for less than 10 days. After 10 days, deposited fill must be removed from the SFHA, or graded and compacted to existing grade within ± 0.2 feet. Deposition of fill includes deposition of material resulting from grading or excavating irrigation or drainage channels. Deposition of fill within the mapped floodway requires an individual permit.
- d. Construction of new underground utilities that do not permanently alter the existing grade elevations by ± 0.5 feet. Excess soil from new pipes larger than 2 feet in diameter must be disposed of outside the regulatory floodway and SFHA.
- e. In-kind replacement of irrigation and drainage works or components including but not limited to control gates or head gates, measuring devices and their housing

structures/stilling wells, culverts, pumps, pipes, flumes, siphons and similar works. GIFD permits cannot authorize the In-kind replacement of dams or bridge structures.

- f. New driveways, trails, sidewalks, roads and streets constructed completely at-or-below existing grade.
- g. Armoring, stabilizing, securing, or in-kind replacement of existing infrastructure within the channel banks (such as bridge piers, sewer/utility supports and storm water/sewer drainage outfalls/headwalls) when the dimensions (bank slopes, channel location, channel elevation) of the channel are not altered. This should not involve replacement with larger or additional above ground infrastructure.

3d. Individual Floodplain Development Permits

An individual permit is required for all other permitted activities and projects within the regulatory floodway and SFHA that do not meet the requirements of a GIFD permit.

Irrigation and drainage entities should consult their local Floodplain Administrator regarding the application and review process for individual permits.