

# **GUIDANCE FOR SINGLE LOT RESIDENTIAL CONSTRUCTION WITHIN THE FEMA FLOODPLAIN IN THE BORREGO VALLEY**

The requirements for construction and improvements performed on a single residential lot located within the FEMA mapped floodplain in the Borrego Valley are explained below and the applicable sections of the pertinent regulations are listed. FEMA mapped floodplain (in 1989) for the Borrego Valley can be viewed by specific address at the FEMA Map Service Center: <https://msc.fema.gov/portal>. For areas not in the FEMA mapped floodplain, these regulations are not applicable. Following the summary of requirements is the FEMA floodplain map for the Borrego Valley, as well as a links to the County Ordinances and additional guidance. Definitions for the terms used are in County Ordinance Section 811.201.

- Any work to existing structures requires a determination as to whether it would be classified as a substantial improvement. Any work that costs more than 50% of the value of the existing structure would be a substantial improvement.<sup>1</sup>
- Any work determined to be a substantial improvement requires compliance with the floodplain regulations as described below.<sup>2</sup>
  - All new and substantially improved structures must be elevated 1' above the FEMA mapped base flood depth. This includes all electrical and utility equipment.<sup>3</sup>
  - Plans are required for all work and must include the items below.<sup>4</sup>
    - Floodplain information including Zone and depth.
    - Height above existing grade of the lowest floor of structures, and the bottom of all electrical and utility equipment.
    - Foundation/fill details and depths.
  - All foundations must be protected from erosion.<sup>5</sup>
    - Fill must be armored.
    - Foundations must extend below the scour depth. The scour depth can be assumed to be the same as the flood depth, but below ground.
  - The elevation of structures and electrical and utility equipment is required to be certified by an engineer or surveyor on a FEMA elevation certificate prior to final sign off.<sup>6</sup> The form is available for download from the FEMA website here: <https://www.fema.gov/media-library/assets/documents/160>.
  - Any work in the Fan Terminus Alluvial Wash cannot cause an increase in flow depths greater than 0.5'.<sup>7</sup>
  - Proposed work cannot cause an obstruction to flows that would create flooding impacts offsite.<sup>8</sup> This requirement is discussed in detail in the Options section below.

## **OPTIONS FOR WORK THAT MAY POTENTIALLY OBSTRUCT FLOW**

For any items proposed to be constructed within the FEMA mapped floodplain in the Borrego Valley, the impacts to adjacent properties need to be determined.<sup>8</sup> If analyses are required to make the determination, they would need to be accepted by FEMA through the map revision process and include cost prohibitive major structural improvements (sedimentation basins, levees and channels). Alternatively, if structures or potential obstructions are sited properly, it may be possible for County staff to make a logical determination that the proposed items would not impact adjacent properties. Staff have determined that having any work that would obstruct flow sited 75' from any property line or public road would be an acceptable threshold to make the logical determination. For sites smaller than 1 acre this would not be possible. Additionally, any structures elevated on piers could also logically be determined to not impact adjacent properties, and analyses would not be required. Following this guidance the following options are available for projects that propose work that may obstruct flow:

- Analyze the impacts and obtain an approved map revision from FEMA.
- For projects that wish to avoid the FEMA map revision process:
  - On lots less than one acre, structures must be elevated 1' above the base flood depth on piers.
  - On lots greater than 1 acre, but less than 5 acres, structures may be allowed to be elevated on fill 1' above the base flood depth if located 75' from any property line or public roadway, or elevation on piers as described above would be required.
  - If a pier foundation is not required, a garage may be built at grade if flood vents are included as required.<sup>9</sup>
  - Fences or walls may be allowed if acceptably designed and certified as breakaway (that would fail safely in place and not obstruct flow) by an engineer, or if located 75' from any property line or public roadway.
  - Manufactured homes must meet the requirements below.<sup>10</sup>
    - All homes must be securely anchored to a permanent foundation system.
    - If elevated on a flow-through foundation system, skirting is not allowed unless it is acceptably designed and certified as breakaway by an engineer.

## LINKS

All County Ordinance Sections referenced are available for viewing online at American Legal Publishing:

[http://library.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:sandiegoco\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:sandiegoco_ca_mc)

The FEMA P-758, Substantial Improvement/Substantial Damage Desk Reference (2010) is available online at:

<https://www.fema.gov/media-library/assets/documents/18562>

## ENDNOTES

1. County Ordinance Section 811.201.oo
2. County Ordinance Section 811.401
3. County Ordinance Section 811.501.c.2
4. County Ordinance Section 811.401.a
5. County Ordinance Section 811.501.d.4
6. County Ordinance Section 811.501.d.5
7. County Ordinance Section 811.501.d.8
8. County Ordinance Section 87.101.d, 87.211, 87.605, 811.403.c.3, 811.501.b.4, 811.501.d
9. County Ordinance Section 811.501.e
10. County Ordinance Sections 811.504, 91.1.104.10.1

# BORREGO VALLEY FEMA FLOODPLAIN DEPTHS

