



PLANNING & DEVELOPMENT

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III.C.5. Conformance with Creeks Ordinance, BMC 17.08

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General Information

This document serves as a guideline and summary of the procedures for compliance with Berkeley Municipal Code (BMC) Chapter 17.08, *Preservation and Restoration of Natural Watercourses* (also known as the Creeks Ordinance). The purpose of this guideline is to provide property owners/applicants with information on determining if the Creeks Ordinance affects their property, the types of projects regulated, and the actions required for submitting plans for a project.

Has the City identified your parcel as affected by the Creeks Ordinance? What type of creek is on or adjacent to your property - a "culverted creek", "open creek", or both?

Understanding what type of creek is near your property is key to understanding what regulations apply and how certain development is affected. The City has developed a Creek Map that depicts open and culverted creek reaches, with a 40-foot buffer on either side of the centerline of open creek sections and a 25-foot buffer on each side of the culverted creek sections. The map is best viewed online. You will need street address or APN (Tax Assessor's Parcel Number) to see a site specific map.

- View the Creek Map for an individual parcel: <http://map.ci.berkeley.ca.us/creeks>
- View other Parcel Conditions: <http://map3.ci.berkeley.ca.us/pif/>
 - This map includes details for that parcel including zoning, fire zone, flood zones, landmark status, and building permit history.
- If the information is unclear, check with Planning Department Staff at the Zoning Counter, 2120 Milvia Street (M-F 8-5, except Wednesday when we open at 9) or call 981-7410.

Open Creeks

If your parcel is along an open creek, certain restrictions apply to constructing new buildings or expansion of existing buildings, decks, paving and bridges within 30 feet of the open creek centerline (measured horizontally).

The Creeks Ordinance prohibits new roofed structures and new impervious paving within 30 feet of an open creek. Some expansions of existing buildings are allowed and may require permits in addition to building permits or other land use permits. The attached matrix details the type of construction and structures that are regulated within 30 feet of an open creek.

If the type of work you propose is regulated by the Creeks Ordinance, then you must obtain the necessary permits to proceed, prior to the issuance of a building permit. This may include submission of a report by a licensed hydrologist or engineer and the issuance of a Creek Permit (Department of Public Works), Administrative Use Permit, Use Permit, or Variance (Planning & Development Department, Land Use Division). If the Creeks Ordinance requires no additional permits, you should proceed to obtaining any and all required building and land use permits prior to construction.

Guidelines for submitting projects when Open Creek regulations apply

When an open creek meets the definition in BMC 17.08.030.A, the Ordinance applies and the property owner/applicant must follow the compliance steps outlined below. While the Ordinance prohibits specific types of development within 30 feet of the creek centerline, proposed development must be reviewed when a project is within the forty-foot creek buffer as mapped by the City of Berkeley. The City maps the area within 40 feet of creek centerlines as potentially impacted by BMC 17.08 because only the approximate location of creeks has been mapped.

1. If the type of project is not regulated, no further information is needed for compliance with the Creeks Ordinance.
2. If the property with an open creek is identified by the City as subject to the Creeks Ordinance, and the project is forty feet or less from the creek centerline, the property owner/applicant shall submit photos and a site map showing the location of the existing and proposed structures, and the centerline and top of bank of the creek. A topographic survey* of the property and any adjoining properties may be required. If the map or survey shows that the project is more than 30 feet from the creek centerline, then this documentation should be provided along with any applications for other land use permits or building permits as applicable.
3. If the project requires a **Creek Permit** (see matrix), the following material must be submitted prior to applying for the building permit application:
 - a. A topographic survey*
 - b. A report completed by a licensed engineer or licensed geologist with expertise in hydrology or slope stability concurrently with the application for a building permit demonstrating to the satisfaction of the Civil Engineer the requirements below:
 - i. The project will not create, exacerbate, or prevent the abatement of erosion and bank de-stabilization problems;
 - ii. The project will not increase stormwater runoff into the creek;
 - iii. The project's construction activities will not degrade water quality from increased sedimentation and particulates from disturbed soils; pollution from motor oil; or from the generally high level of toxics and trash around construction sites;
 - iv. The project will not eliminate or degrade significant in-stream or riparian corridor habitat; and

- v. The project will not prevent establishing stable banks and/or headwall at a culvert intake or outflow or otherwise impede or complicate access to a culvert for maintenance or repair.
 - c. All required fees
4. If the project includes work within the banks or channel of an open creek, the following additional information will be required:
- a. "Section 1" of the JARPA application; (<http://sfep.abag.ca.gov/projects/JARPA/JARPA.html>); and
 - b. Completed CEQA checklist or Environmental Documents associated with the project.

If you have questions regarding Creek Permits, please contact Engineering Inspector Neil Mock at 981-7451 or via e-mail at nmock@ci.berkeley.ca.us

5. If the project requires an **Administrative Use Permit (AUP)** (see matrix) and/or other land use permits are required by the Creeks Ordinance or Zoning Ordinance (Use Permit or Variance) the following material must be submitted with the permit application, prior to submittal of a building permit application:
- a. A topographic survey*
 - b. A complete AUP (or UP or Variance) permit application. See the Zoning Project Submittal Requirements and Guidelines (<http://www.ci.berkeley.ca.us/onlineservice/forms.htm - planning>)
 - c. The Creek/Culverted Creek Permit Application form and checklist
 - d. All required fees (<http://www.ci.berkeley.ca.us/onlineservice/forms.htm - planning> and go to Land Use Planning Fees)
 - e. A report completed by a licensed engineer or licensed geologist with expertise in hydrology or slope stability that demonstrates to the satisfaction of the Zoning Officer/Zoning Adjustments Board that the findings iii. – vi. listed below can be met.
 - f. The required findings that must be met for approval for the **expansion of a building** through an **AUP** follow:
 - i. Alternatives to expansion within the setback area, such as reducing setbacks to move the structure further away from the centerline of the creek, are either physically or economically infeasible. Physical feasibility includes site constraints and the relationship of the structure to adjacent structures. Economic feasibility includes consideration of the relative cost of constructing the structure in its original location and moving the structure to a new location.
 - ii. The additional encroachment into the area within 25-30 feet from the centerline of the creek is not substantial in relation to the width and depth of the property and the existing structure on the property.
 - iii. The expansion will not create, exacerbate, or prevent the abatement of, erosion and bank de-stabilization problems.
 - iv. The expansion will not increase storm water runoff into the creek.
 - v. The expansion's construction activities will not degrade water quality from increased sedimentation and particulates from disturbed soils; pollution from motor oil; or from the generally high level of toxics and trash around construction sites.

- vi. The expansion will not eliminate or degrade significant in-stream or riparian corridor habitat. (Note: Any expansion of an existing structure within thirty feet of the centerline of a creek impacts the riparian corridor in that it reduces the size of the corridor, and may impact habitat, flooding, runoff, and water quality. The Zoning Officer/Board shall require on-site mitigation commensurate with the impact of an expansion on the riparian corridor subject to this section.)
- g. For an **Administrative Use Permit for decks**, the following findings are required:
 - i. The deck will not create, exacerbate, or prevent the abatement of, erosion and bank de-stabilization problems.
 - ii. The deck will not increase stormwater runoff into the creek.
 - iii. The deck's construction activities will not degrade water quality from increased sedimentation and particulates from disturbed soils; pollution from motor oil; or from the generally high level of toxics and trash around construction sites.
 - iv. The deck will not eliminate or degrade significant in-stream or riparian corridor.

Structures without roofs typically are not regulated within the 30' setback; however, some aspects of a project may be regulated and/or not permitted, including any feature that obstructs or interferes with the watercourse (e.g. piers, retaining walls, etc.).

Examples of development that is typically not regulated:

- Vegetation, landscaping
- Solar panels, skylights, awnings
- Interior remodeling

Examples of hardscape prohibited from interfering with the watercourse

- Riprap
- Cement channels
- Box culverts

Planning Department Staff at the Zoning Counter, 2120 Milvia Street, can assist you if you have questions about Administrative Use Permits, or call 981-7410.

Culverted Creeks

If your parcel is along a culverted creek, specific analysis and permits may be required in order to proceed with any new construction within 25 feet of the culverted creek centerline (measured horizontally).

The Creeks Ordinance regulates construction of new structures or construction that expands the mass or footprint of an existing building within 15 feet of the centerline of a culverted creek. Administrative review by Public Works Department staff is required to determine appropriate setbacks that promote safety and allow access for maintenance and repair. Construction must be engineered to ensure that the project will not have a negative impact on the culvert and the culvert will not have an impact on the project. The attached matrix details the type of construction and structures that are regulated adjacent to culverted creeks.

Guidelines for submitting projects when Culverted Creek regulations apply

Information is required when development is proposed within 25 feet of a culverted creek because the City maps only show the approximate location of creeks. If the construction is regulated and is proposed within 15 feet of the creek centerline, a Culverted Creek Permit is required, issued by the Department of Public Works. Compliance steps follow.

1. If the type of project is not regulated, no further information is needed for compliance with the Creeks Ordinance.
2. If the property with a culverted creek is identified by the City as subject to the Creeks Ordinance, and the project is 25 feet or less from a culverted creek, the property owner/applicant shall submit the written results of an investigation, including a map with topographic features and two-foot contours, showing the depth and size of the culverted creek and its centerline. The location of the creek culvert has to be field verified by the applicant, and clearly shown on submitted drawings. The creek culvert can be located with GPS/radio technology, ground penetrating radar, and/or exploratory trenching.
3. If the project is more than 15 feet from the centerline of the culverted creek, the documentation of the location of the culverted creek centerline shall be submitted with the building permit or other required permit applications.
4. If the project is within 15 feet of the centerline, a **Culverted Creek Permit** is required and the following material must be submitted to Engineering staff at the Permit Service Center, 2120 Milvia Street prior to applying for the building permit application:
 - a. The Creek/Culverted Creek Permit Application form and checklist.
 - b. A site plan which includes the location of the creek culvert in relation to the proposed construction;
 - c. A description of any physical defects in the culvert based upon a visual inspection by closed circuit television or other technology approved by the City Engineer;
 - d. An analysis of the stability of the culvert based upon a structural analysis;
 - e. The proposed design of the foundation and the bearing strength of the soil; and
 - f. All required fees.

To approve the Culverted Creek Permit the City Engineer must find that:

1. The structural integrity of the culvert under existing conditions is acceptable and will not be compromised by the proposed construction;
2. The proposed construction will not impede access for the responsible party to repair and maintain the culvert;
3. The flow of the creek will not be impeded nor its water quality impaired.

Exemptions

The following structures are exempt from the culverted creek requirements. To proceed with construction, you do not need to verify the centerline of the creek culvert or obtain a Culverted Creek Permit; however, other building and zoning regulations may apply.

1. Any fence, arbor, trellis, pergola, gazebo, play structure or other similar unenclosed accessory structure.
2. Retaining walls that are less than three feet in height.
3. Flag and light poles.
4. Solar energy equipment.
5. Mechanical lifts.
6. Prefabricated or other moveable one-story detached accessory buildings that are not permanently attached to a foundation.

If you have questions regarding Culverted Creek Permits, please contact Engineering Inspector Neil Mock at 981-7451 or via e-mail at nmock@ci.berkeley.ca.us

Open and Culverted Creeks

If your parcel is near both an open and culverted creek, both sets of regulations apply respectively to the portion of creek adjacent to proposed development. Any analysis and/or permits required must be obtained prior to the issuance of a building permit.

Do other regulations apply?

Yes! The Building Code and Zoning Ordinance apply in addition to the Creeks Ordinance. Additional permits and fees may be necessary to proceed with your work. You should review these regulations and discuss your project with staff at the Zoning Counter (Land Use Division) and with the Permit Service Center staff to determine additional City permit and fee requirements.

Additionally, several State and Federal agencies may regulate beyond what is regulated by the City of Berkeley and the project may require permits (or waivers) from these agencies, regardless of the City requirements. A Joint Aquatic Resources Permit Application (JARPA), can be completed and used to obtain permits (or waivers) from these agencies. More information on projects that require additional permits, and the JARPA process, can be obtained at: <http://www.abag.ca.gov/bayarea/sfep/projects/JARPA/JARPA.html>.

Additional Information

***Topographic Survey Requirements:**

A topographic survey must adequately identify drainage patterns to locate centerlines of channels, swales, or depressions within thirty feet of the applicant's parcel. This survey must also show relevant parcel boundaries, relevant portions of existing structure footprints, and any features from which proposed development are referenced. Elevations shall be measured at mean sea level. Any topographic survey must be certified by either a registered civil engineer or a licensed land surveyor.

Additional Resources:

- BMC 17.08, Preservation and Restoration of Natural Watercourses:
http://www.ci.berkeley.ca.us/bmc/Berkeley_Municipal_Code/Title_17/08/index.html

- JARPA, <http://www.abag.ca.gov/bayarea/sfep/projects/JARPA/JARPA.html>
- Department of Public Works, Engineering Division, 981-6400
- Department of Planning & Development, Land Use Division, 981-7410

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