GUIDE TO

OAKLAND'S CREEK PROTECTION ORDINANCE

"City of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance"
Oakland Municipal Code Chapter 13.16

Oakland's creeks are a valuable resource to the City of Oakland. They remove water pollutants and improve water quality, provide flood control and stormwater drainage, are vital to wildlife habitat, and create neighborhood beauty and improved quality of life. For many years, Oakland residents and policy makers have recognized the importance of creeks by including preservation language in planning documents such as the Open Space and Recreation Element of the General Plan. In 1997, the community joined with policy makers to create additional protection policies through the creation of a Creek Protection Permit. After months of community meetings and policy discussions, the City of Oakland's Stormwater Ordinance was amended on December 16, 1997 to include these creek protection measures. The Ordinance includes permitting guidelines for development and construction projects taking place in or near creeks. The intent of the permit is to assure that work done on a creekside property will avoid or limit, to the extent feasible, having a negative impact to the creek at both the time of construction and in the future.

CITY OF OAKLAND CREEK PROTECTION, STORMWATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE

PURPOSE AND INTENT:

- "….Safeguarding and preserving creeks and riparian corridors in a natural state;
- Preserving and enhancing creekside vegetation and wildlife;
- Preventing activities that would contribute significantly to flooding, erosion or sedimentation, or that would destroy riparian areas or would inhibit their restoration;
- Enhancing recreational and beneficial uses of creeks;
- Controlling erosion and sedimentation;
- Protecting drainage facilities; and
- Protecting the public health and safety, and public and private property."

To see the entire ordinance go to the Watershed Improvement Program website at www.oaklandpw.com/creeks.

What is a Creek?

*"A **Creek** is a watercourse that is a naturally occurring swale or depression, or engineered channel that carries fresh or estuarine water either seasonally or year around."*

A) Required Physical Features of a Creek

A creek **must** include **all** of the following three features: (1) hydrologic connectivity, (2) presence of channel form, **and** (3) topographic position. A creek begins at the first point at which these features are met.

1. ***Hydrologic Connectivity*–**The creek is part of a contiguous waterway. It is hydrologically connected to a waterway above and below the site or is connected to a spring, headwaters, lake, the Estuary, or the Bay.

   Clarification Criteria: The following clarify specific conditions that must be present in order to satisfy the hydrologic connectivity criteria. If **any** of the following conditions are present, the hydrological connectivity requirement is generally met:

   - Creek headwaters, springs, storm drain culverts, underground seepage, or groundwater flow are considered connectivity. Sections above and/or below this connectivity are creeks if they meet the other required features (i.e. a creek flowing through a culvert is a creek both above and below the culvert.).
   - Creeks may be connected across or over manmade improvements such as roads. When flowing across or over such improvements within the public right-of-way, other than creek channel improvements, it is not considered a creek. Sections above and/or below this connectivity are creeks if they meet the other required features.

2. ***Channel Form*–**There is a channel, including a bed, bank, and features that indicate actual or potential sediment movement.

   Clarification Criteria: The following clarify specific conditions that must be present in order to satisfy the hydrologic connectivity criteria. If **any** of the following conditions are present, the hydrological connectivity requirement is generally met:

   - Creek channels may be natural, altered, or engineered.
   - Creek channels begin at the point of bed and bank initiation.
   - Springs are considered the start of a creek if located uphill from creek initiation.
   - A creek channel must have enough flow under present-day conditions to maintain channel form and to move sediment. A non-engineered creek channel bed and bank are created and maintained by erosion and sedimentation, thus the presence of a channel with bed and bank is itself evidence of sufficient flow. Flow volume or timing are **not** criteria for creek determination.
   - Scour, sedimentation, sediment sorting, undercut banks and/or other erosion, deposition, or transport features are signs of sediment movement.
   - Engineered or altered channels are partially or wholly made of earth, concrete, rip rap, or other materials. The hardened nature of these channel bed and banks, and a lack of available sediment along the channel reach, may prevent signs of sediment movement or scour. Such channels need not have explicit evidence of sediment transport.
   - If a creek is connected underground and the area overlying this underground connection is considered a wetland using the Army Corps of Engineers wetland delineation criteria, this portion is a creek despite possibly lacking creek channel form.

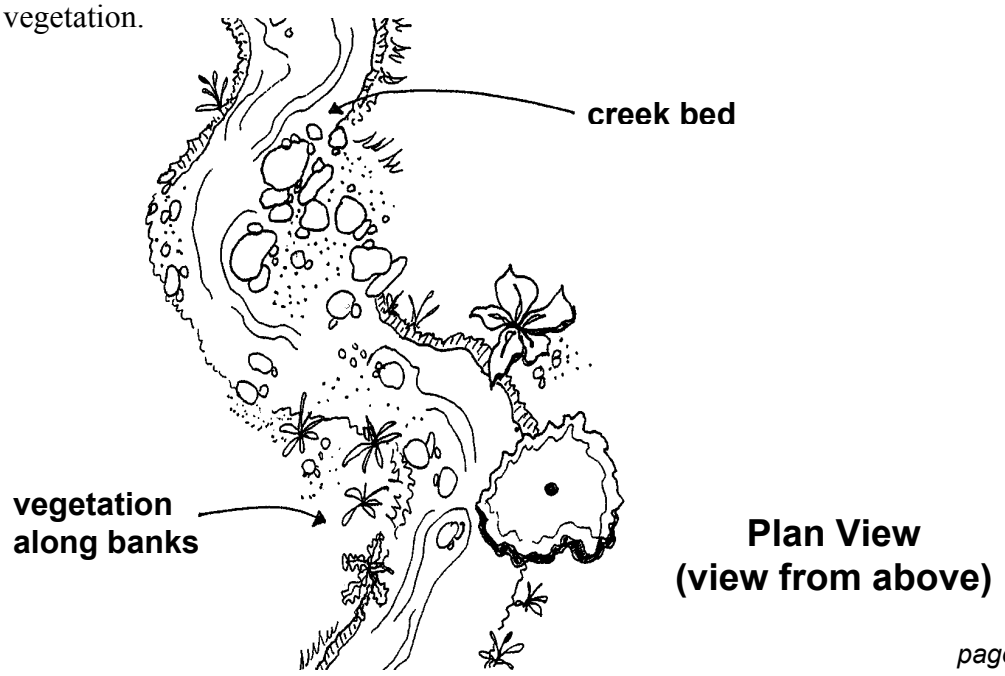
- If a creek is underground due to being filled without appropriate permits from all applicable regulatory agencies (federal, state, and local), or due to a landslide, it is considered a creek.

3. ***Topographic Position***–Creeks must occupy a specific topographic position.
   Clarification Criteria: The following clarify specific conditions that must be present in order to satisfy the hydrologic connectivity criteria. If **any** of the following conditions are present, the hydrological connectivity requirement is generally met:
   - Micro-topography such as a 'U' shape or 'V' shape channel typically located at the low point of a macro-topographic feature.
   - Macro-topography consists of bowl, 'U', or 'V' shaped topography with high points draining to a valley or ravine as part of a large drainage network leading to large creeks, lakes, the Estuary, and/or the Bay.
   - Flatland macro-topography may consist of shallow bowl or 'U' shaped topography. Generally these creeks flow from the hills toward the Estuary and Bay following the slope of the land.
   - Creek topography can be indicated on a topography map by a 'U' or 'V' shape pointed in the uphill direction.

B) Indicator Features

To help with screening and identification in the field a creek may also have the following features (the absence of these features does **NOT** mean there is no creek):

- A riparian corridor–a corridor of relatively denser vegetation roughly parallel to the creek channel, or soil conditions that would support native riparian vegetation. Riparian vegetation is sometimes missing due to landscaping or vegetation removal practices, landslide, or fire.
- Bed with material that differs from the surrounding geologic material (i.e. more rocky, or gravelly, little or no vegetation, sorted by size).
- Man-made structures common to waterways, for example bank retaining walls, trash racks, culverts, inlets, rip rap, road bends, etc.
- Tidal or backwater influence, and/or nutrient or resource exchange with the Estuary or the Bay.
- Wetland vegetation.



Exclusions

The definition of creeks generally excludes the following conditions or features, although these conditions may represent hydrologic connectivity for an upstream and/or downstream creek:

- The following structures (while the structures themselves are not considered creeks, the presence of these structures does not preclude the determination of a creek):
    - Improved roads,
    - Rain gutter gullies fed **only** by the rain gutters of a building or other roof runoff,
    - Curb/gutter, pipes, culverts, fully enclosed storm sewers, inlets, and catch basins.
- Biofiltration swales, faux creeks, detention basins, mosquito ditches, or stormwater attenuation features that were not intended to function as a creek or wetland, and/or were not installed as mitigation for creek or wetland disturbance.

Seminal Court Case (Locklin v. City of Lafayette (1994) 7 Cal. 4th 327)

The Locklin court case has provided additional guidance in clarifying the definition of a "Creek" in Oakland and is consistent with current City policy and practice. The Locklin definition of a "natural watercourse" is similar to Oakland's definition of a creek.

A Natural Watercourse (in Oakland, a "Creek"):

"is a channel with defined bed and banks made and habitually used by water passing down as a collected body or stream in those seasons of the year and at those times when the streams in the region are accustomed to flow. It is wholly different from a swale, hollow, or depression through which may pass surface waters in time of storm not collected into a defined stream. A canyon or ravine through which surface water runoff customarily flows in rainy seasons is a natural watercourse. Alterations to a natural watercourse, such as the construction of conduits or other improvements in the bed of the stream, do not affect its status as a natural watercourse. A natural watercourse includes all channels through which, in the existing condition of the country, the water naturally flows, and may include new channels created in the course of urban development through which waters presently flow. Once surface waters have become part of a stream in a watercourse, they are no longer recognized as surface waters." (page 345)

General Creek Functional Guidelines

The following are typical functions of creeks in Oakland. These functions act as general guidelines to be used in creek determinations:

- Carries fresh or estuarine water either seasonally or year round,
- Supports native riparian, wetland, and/or aquatic habitats,
- Maintains channel form (which includes bed and bank),
- Provides flood control and storm drainage,
- Removes pollutants and improves water quality,
- Transports, stores, and/or sorts sediment,
- Maintains stable flow regime, including water transport, detention, and/or infiltration, and
- Provides community and aesthetic value.

When is a Creek Protection Permit required?

The extent to which your development or construction will be regulated by this Ordinance depends upon the type of work you are doing and where it is taking place. The following provides a brief description of the four categories of creekside work requiring a permit:

Creek Protection Permit Categories:

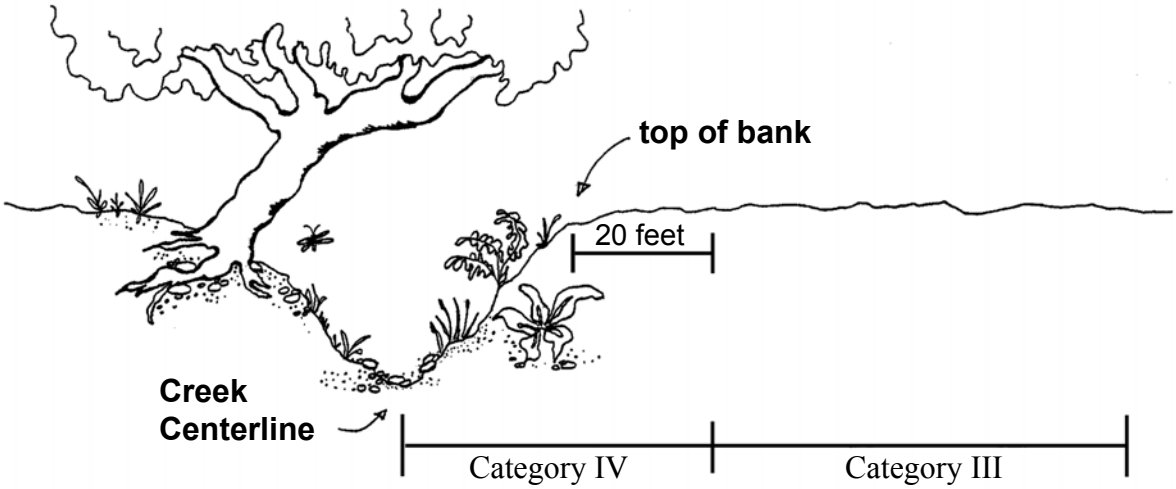
Category 1: Interior construction and alterations including remodeling.

Category 2: Exterior work that does not include earthwork and is located more than 100 feet from the centerline of the Creek.

Category 3: Exterior work that is located between 20 feet from the top of the Creek bank and 100 feet from the centerline of the Creek; or Exterior work that includes earthwork involving more than three (3) cubic yards of material, beyond 20 feet from the top of the Creek bank.

Category 4: Exterior work conducted from the centerline of the Creek to within 20 feet from the top of the Creek bank.

Creek protection permits may be reclassified to a higher or lower category depending on potential project impacts. Apply for reclassification at the Building and Engineering Services Counter.



Application Documents:

Site Plan: For projects that fall in category 2, 3 or 4, a site plan must be submitted with the permit application. The site plan should clearly illustrate the relationship and distance of the project to the creek centerline and top of the creek bank.

Notices: If your project falls into category 3 or 4 you will be required to post public notices within a 300 ft. radius of the project location. A category 4 permit will also require mailing of public notices.

Creek Protection Plan: If your project falls into category 3 or 4 you will be required to submit a creek protection plan that describes how you will protect the creek, its banks, riparian vegetation, wildlife, surrounding habitat, and the creek's natural appearance during and after construction.

CEQA: Category 3 and 4 projects will be reviewed for compliance with the California Environmental Quality Act.

Hydrology Report: Category 4 permits require a hydrology report.

Criteria for permit approval includes whether or not the project will:

- Cause discharge of a substantial amount of pollutants (i.e. dirt, pesticides or oil);
- Cause substantial modifications to the natural flow of water or capacity;
- Cause substantial erosion or bank instability (as determined by a soils engineer);
- Substantially, adversely affect the riparian corridor, vegetation, or wildlife;
- Substantially degrade the visual quality and natural appearance of the corridor,
- Be consistent with the intent and purposes of the ordinance, or
- Endanger public or private property or threaten public health or safety.

To see the entire ordinance go to the Watershed Improvement Program website at www.oaklandpw.com/creeks.

Some projects may have little or no impact on the creek. In that case, the permit may only require the property owner to read educational materials, provided by the City. Other projects may require that conditions be placed on project design (see *"What may be required for approval of a creek protection permit?"* on next page).

Failure to apply for a Creek Protection Permit, or failure to comply with permit conditions, could result in a stop work order, restoration of the site, fees, penalties and fines.

What should be included in a Creek Protection Plan?

A Creek Protection Plan is prepared for City review and approval prior to issuance of the Creek Protection Permit for categories 3 and 4. A Creek Protection Plan may include but is not limited to the following elements:

- Education on creek protection provided to workers on the site;
- Litter prevention measures, (for example, how is debris, loose dirt. etc. stored);
- Dust control measures;
- Methods of cleaning tools and equipment;
- Construction site fencing;
- Future and ongoing sediment and erosion control measures;
- Wet weather protection;
- Special circumstances/additional information; or
- Emergency preparations for construction related spills.

The Creek Protection Plan may be prepared by the owner of the property, an architect, engineer, or contractor and will obligate the applicant to implement the approved provisions of the plan.

What is a hydrology report?

A hydrology report, required for a category 4 permit, must be prepared by a licensed engineer with creek hydrology expertise. Review and approval by the City is required prior to issuance of a Creek Protection Permit. A hydrology report may include, but is not limited to the following elements:

- Flows and water surface levels;
- Address how future development in the area (unrelated to the proposed work) may impact flows;
- Creek bank stability, before and after the project;
- Impact of proposed work with regard to direction, as well as quantity of flow in the Creek;
- Upstream and downstream conditions, before and after project construction;
- Location of major drainage facilities (e.g. trash racks, culverts, discharge points, etc.);
- Profiles of the stream;
- Cross sections;
- Proposed improvements to the Creek; including any vegetative or other natural screening enhancements utilized;
- Impacts of proposed project on existing vegetation or wildlife within the affected riparian corridor; and
- Required permits or approvals from regulatory agencies such as the California Department of Fish and Game, Army Corps of Engineers, and the State Regional Water Quality Control Board.
- Any additional information deemed reasonable by the Director of Building Services.

What may be required for approval of a creek protection permit?

The following are typical conditions of permit approval that help projects meet the intent and criteria in the creek protection ordinance. (This list is not inclusive and other conditions may be imposed).

The applicant may be required to:

- plant and maintain native riparian vegetation for landscaping along creek areas (plant lists are available at the Building Services counter);
- use soil bioengineering techniques for bank stabilization and to control erosion, such as brush layering, cuttings, staking, and fascines;
- implement stormwater quality protection measures such biofiltration, porous pavement, modular pavers and permeable surfaces, installation of vegetation and vegetated swales, biofiltering, infiltrative landscaping, and other on-site stormwater treatments;
- implement appropriate drainage controls to prevent concentration of water and velocity, such as dissipation and infiltration;
- implement appropriate construction controls such as locating stockpile away from the creek, installing temporary erosion control;
- comply with seasonal limits on grading, grubbing or pier drilling;
- install vegetation and tree protection measures during construction such as fencing;
- comply with limits on pesticide and fertilizer use;

- and, in a very few cases actual design changes will be necessary when proposed structures are too close to the creek and riparian corridor.

What is typically NOT allowed?

*Projects and activities that would generally **not** meet the criteria in the ordinance:*

- removal of riparian vegetation zones (even if in a fire area, fire abatement guidelines are available at the building and engineering services counter)
- culverting or undergrounding of the creek
- changing or moving the location of the creek
- structures spanning the creek (such as bridge, house, garage, or deck)
- structures in or on the creek bank
- draining into the creek without controls for velocity (speed and energy) and pollution
- agriculture activities on creek banks or in creek beds
- rip rap, rock gabion or concrete in the creek or on the creek bank
- check dams in the creek
- alteration of the creek flow direction, velocity, turbidity or chemical makeup
- creation of ponds
- introduction of non-native vegetation or wildlife
- removal of tree canopies over creeks
- grading of creek banks
- filling, pile driving, or deposition of any new material to creek bank or bed

***Note:** In order for the City to approve any of the above activities, the applicant must demonstrate, to the City's satisfaction that, (1) the application of the Creek Protection Ordinance to a specific project would create an unconstitutional "taking" of property without just compensation (e.g., there are no feasible alternatives to the activity **and** without the activity the applicant will be deprived of economically viable use of their property) and that the activity, if permitted, would be carried out only to the extent necessary to avoid a "taking"; **or** (2) that the activity will result in restoration or improvement to creek water quality, hydrology and/or riparian habitat; **or** (3) denial of the permit would continue or exacerbate a threat to property and/or the public's health or safety (i.e., the work is necessary to protect drainage facilities, prevent or repair erosion/landslides and there are no feasible alternatives to the work).*

Can an applicant appeal the City's determination?

Determination of whether there is a creek (identification of a creek, or headwaters) is made by the Environmental Services Manager and can be appealed to the City Planning Commission with an appeal fee. Decisions on the Creek Protection Permit are made by the Director of Building Services and can be appealed to the City Planning Commission with an appeal fee.

Both appeals must be made within ten (10) calendar days of the contested decision, be in writing, state specifically wherein it is claimed that there was an error or abuse of discretion, or where the decision was not supported by substantial evidence before the City, and be accompanied by the

appropriate appeal fee. If you challenge a City determination in court, you may be limited to issues raised in your appeal form (and attachments). Appeal forms can be obtained from the City of Oakland, Community and Economic Development Agency, Planning Permit Counter, 250 Frank Ogawa Plaza, 2nd Floor, Oakland, CA 94612.

Creek Ordinance Helpful Hints

- incorporate creek protection measures into plans and designs **before** applying for a creek protection permit
- City cannot provide design services. Applicants should use a professional who specializes in land stability, erosion control and creek environments
- inform professionals that are working on your project about the creek protection ordinance before they begin design or work
- design your project so that it will have the least impact to the creek
- keep new structures as far from the creek as possible
- incorporate native riparian vegetation into landscape design
- incorporate integrated pest management techniques into landscape maintenance to prevent unnecessary pollutants from entering the creek
- design drainage so that as much runoff as is possible and safe, is retained on the property and not drained directly into creek.
- drain runoff through vegetation to prevent pollutants from entering the creek
- use energy dissipaters to drain water in order to reduce erosion
- keep construction stockpiles and work areas as far from the creek as possible

Use the following quick checklist before you submit you application:

- ❑ Have you designed your project or activity so that it so that it avoids or limits impacts to the creek?
- ❑ Have you reviewed typical conditions of approval and incorporated appropriate creek protection measures in your plans?
- ❑ Do you believe you meet the Criteria for Permit approval of this Ordinance?
- ❑ Have you completed and included all the necessary documents with your application (see below)?

Checklist of documents for Creek Protection Permits:

CATEGORY 1
- ❑ Application cover sheet

CATEGORY 2
- ❑ Application cover sheet
- ❑ Creek Site Plan

CATEGORY 3
- ❑ Application cover sheet
- ❑ Creek Site Plan
- ❑ Creek Protection Plan
- ❑ Post public notices
- ❑ Environmental documents required due to California Environmental Quality Act Review

CATEGORY 4
- ❑ Application cover sheet
- ❑ Creek Site Plan
- ❑ Creek Protection Plan
- ❑ Post and mail public notices
- ❑ Hydrology Report
- ❑ Environmental documents required due to California Environmental Quality Act Review

- For information regarding Oakland's Creek Protection Permit call the City of Oakland, Community and Economic Development Agency's Civil Engineering Information Counter at (510) 238-4777.
- For more information about the City of Oakland's Watershed Improvement Program and the creek protection ordinance, go to our website at www.oaklandpw.com/creeks.

What other permits may be required?

Any project on a creek property may also require approval from other regulatory agencies relating to watershed protection. Check with the following agencies to see if a permit is required for your project.

City of Oakland Permit Center
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612
(510) 238-3443

The Permit Center can help you identify the permits you need, assist you with the application process, help you move your permits through review and approval process, and inform you about new, cost-effective environmental compliance technologies.

The U.S. Army Corps of Engineers
333 Market Street, 8th Floor, San Francisco, CA 94105-2197
(415) 977-8461

The Corps permit is required for work in a creek bed or within the high water or high tide line of any water body. Call the Corp to obtain a Permit Application Packet.

California Department of Fish and Game
P.O. Box 47, Yountville, CA 94599
(707) 944-5520 or (707) 944-5586

The California Department of Fish and Game has jurisdiction over any work in the riparian corridor. Work in, on, over or under the creek between the streambed sloping upwards to the top of the bank and beyond to the boundary of the riparian corridor. The Department of Fish and Game requires a Streambed Alteration Agreement (SAA) for projects that will divert or obstruct the natural flow of water, change the bed, channel or bank of any creek, or propose to remove any material from a creekbed.

San Francisco Water Quality Control Board
1515 Clay Street, Suite 1400, Oakland, CA 94612
(510) 622-2300

The Regional Board's overall mission is to protect surface and groundwaters of the San Francisco Bay Region. The Regional Board requires permits for any project that may potentially adversely affect the creek or waterway.