

Office of the City Manager

ACTION CALENDAR  
July 13, 2004

To: Honorable Mayor and  
Members of the City Council  
From: PK Phil Kamlarz, City Manager  
Subject: Creeks Ordinance: Direction to Staff

CURRENT SITUATION AND ITS EFFECTS

On March 16, 2004, the City Council conducted a public workshop in regard to the City's current Creek Ordinance. At that time, the Council received a report from staff describing how the ordinance is currently being applied and also identifying some issues raised by the current ordinance. The Council also heard a presentation from creek advocates in regard to their concerns with the current ordinance. The Council did not provide direction to staff as to any next steps it would like in regard to either possible modifications to the ordinance or public outreach. Subsequently, several Council members have requested information regarding the current condition of culverted creeks. The City Council Agenda Committee has tentatively scheduled another Council workshop regarding the creeks ordinance for the early fall, but has not yet provided direction to staff as to how this meeting should be structured and noticed. At this time, staff is seeking direction from the Council as to the nature and content of the fall workshop, and direction on any other next steps it would like staff to take in regard to the creek ordinance. To assist the Council in considering the workshop and possible next steps, staff has included the staff report for the March 16 meeting. That report sets forth some issues that the Council may wish to consider in structuring the workshop or providing direction to staff.

BACKGROUND

On May 13, 2003, the City Council requested that staff schedule a Council workshop to discuss the existing ordinance related to creeks. Prior to requesting the workshop, in October 2002, the City Council modified the creeks ordinance to remove references to a map in the definitions section, and clarify that the ordinance applied to those portions of culverted creeks that remained in their original naturally occurring location. These modifications in the ordinance were considered "declaratory of existing law." In May 2003, the Council adopted a modification to the ordinance allowing some construction to occur within the required 30-foot setback, if several specific findings could be made. In June 2003, in response to a Council referral (126-02), the City Attorney prepared potential amendments to the creeks ordinance to address two points: 1) prevent any kind of development within 30 feet of a creek; and 2) address the issue of single family homes destroyed by natural disaster. However, at the request of creeks advocates, the City Manager held over consideration of the changes to the March 16, 2004 workshop.

The following is the list of issues identified by staff in the March 16 report (further discussion is found in that report, enclosed):

- what is the appropriate area (setback) that should be subject to protection under the ordinance (currently 30 feet from the centerline of the creek);
- should culverted creeks in their original location be regulated the same as open creeks;
- what types of activities/development should be regulated in the area subject to protection;
- are there additional efforts the City should be making to further its goal of daylighting culverted creeks;
- should additional notice be given to property owners potentially regulated under the ordinance;
- should the City modify its treatment of regulated properties after a disaster;
- what are appropriate penalties for violation of the ordinance;
- should the City develop better guidelines/regulations for addressing run-off;
- what are the maintenance requirements of public culverts.

Recommendation

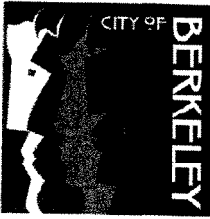
Staff recommends that the Council provide direction to staff as to the nature and content of the fall workshop, and specific direction on noticing for that workshop. For example, the workshop could focus on explaining the current ordinance and its effects, or it could also include discussion on the range of issues described above. Individual notice could be given to all property owners identified on the City's creeks map or only a general notice given. The Council may also wish to direct staff to return with a potential work program and a budget for evaluating potential ordinance modifications. If the Council would like staff to prepare such a draft work program, it should also provide direction on the range of issues that such a program would need to consider.

CONTACT PERSON

Dan Marks, Planning Director 981-7401


Approved:

  
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Dan Marks  
Planning Director



Office of the City Manager

WORKSHOP  
March 16, 2004

To: Honorable Mayor and  
Members of the City Council  
From:  Phil Kamlarz, Acting City Manager  
Subject: Creeks Ordinance

CURRENT SITUATION AND ITS EFFECTS

City regulation prevents most development from occurring within 30 feet of the centerline of a creek (the existing creeks ordinance is Attachment 1). Creeks are broadly defined to include naturally occurring watercourses (whether seasonal or perennial), and those portions of a creek that have been placed in culverts but remain in the location where they naturally occurred before being placed in the culvert.

In April 2002, the City Council adopted the General Plan, with an Environmental Management Element. The following policies were adopted in relation to creeks:

*Whenever feasible, daylight creeks by removing culverts, underground pipes, and obstructions to fish and animal migrations.*

*Actions:*

- A. Seek funding sources to acquire and preserve land within creek corridors for restoration or day-lighting.*
- B. Establish, where appropriate or feasible, pedestrian and bicycle paths along creek-side greenways to connect neighborhoods and commercial areas.*
- C. Encourage day-lighting of creeks on public lands as well as along creeks that are substantially open and accessible to the public.*
- D. Restrict development on or adjacent to existing open creeks. When creeks are culverted, restrict construction over creeks and encourage design solutions that respect or emphasize the existence of the creek under the site.*
- E. Ensure that creek day-lighting proposals include appropriate landscaping, allow for adequate access, and carefully consider the urban context, the impact on existing recreational spaces, and the economic impact on the property and nearby properties.*

*F. Work in cooperation with adjoining jurisdictions to jointly undertake creek and wetland restoration projects, to improve water quality and wildlife habitat, to allow people to enjoy creeks as part of urban open space, and to create creek-side transportation corridors for pedestrians and bicycles, as described in the 1995 Joint Watershed Goals Statement.*

*G. Regulate new development within 30 feet of an exposed streambed as required by the Creeks Ordinance and minimize impacts on water quality and ensure proper handling of stormwater runoff by requiring a careful review of any public or private development or improvement project proposed in water sensitive areas.*

*H. Consider amending the Creek Ordinance to restrict parking and driveways on tops of culverts and within 30 feet of creeks.*

*I. Consider replacing culverts under streets with open bridging when feasible.*

In 2002, the City Council amended the ordinance to make it clear that the maps previously cross referenced in the definitions portion of the ordinance were designed to be guides and not limitations on whether a watercourse was a creek. This amendment accomplished this clarification by calling for staff to “maintain maps and other reliable records, reflecting such creeks for the guidance of the public.” The City Attorney had issued an opinion (Attachment 2) which so concluded and the ordinance amendment was intended only to be declarative of existing law. Similarly, in 2002, the City Council also adopted an ordinance amendment, which affirmed that culverted creeks were in fact subject to the requirements of the ordinance as a City Attorney opinion going back to 1991 had stated (Attachment 3). Staff has prepared a map (to be presented at the Council workshop) that it can use as a tool to assist the public (and staff) to know when a property may be regulated under the ordinance, and an administrative procedure (Attachment 4) for determining whether a property is regulated under the ordinance. Because the regulation of creeks depends on a definition of creeks and not on a map, the fact that a property is not on the map does not exclude it from being potentially regulated under the creek ordinance. There may be watercourses in the City of Berkeley that meet the definition of a creek under the ordinance but are not shown on the City’s map. The reverse is also true: the fact that a property is identified on the map does not necessarily mean it is regulated under the ordinance. The maps are based on the best information available, but that information is not necessarily accurate to exact location of the centerline of creeks, and some leeway was built into the maps to account for that inaccuracy. For example, the map may show a property as being within the 30-foot setback that is regulated, but an actual measurement of the location of the creek centerline may show that the property is outside that 30-foot setback.

Council members have questioned whether the ordinance is either too restrictive or insufficiently restrictive and whether additional issues should be addressed. This report is intended to provide some background to assist the Council in providing direction to staff regarding possible next steps to address this issue.

### BACKGROUND

On May 13, 2003, the City Council requested that staff schedule a Council workshop to discuss the existing ordinance related to creeks. Prior to requesting the workshop, in October 2002, the City Council modified the creeks ordinance to remove references to a map in the definitions section, and clarify that the ordinance applied to those portions of culverted creeks that remained in their original naturally occurring location. These modifications in the ordinance were considered "declaratory of existing law." In May 2003, the Council adopted a modification to the ordinance allowing some construction to occur within the required 30-foot setback, if several specific findings could be made. In June 2003, in response to a Council referral (126-02), the City Attorney prepared potential amendments to the creeks ordinance to address two points: 1) prevent any kind of development within 30 feet of a creek; and 2) address the issue of single family homes destroyed by natural disaster. (Attachment 5, June 13, 2003 memo from the City Manager enclosing a draft amendment) However, at the request of creeks advocates, the City Manager held over consideration of the changes to this workshop.

### ISSUES

The following is a list of issues identified by staff and some background on those issues. The list of issues is not intended to be exhaustive, but is intended to provide a beginning point for discussion by the Council.

#### What is an appropriate area (setback) for protection?

The current ordinance regulates the area within 30 feet of the centerline of a creek. Staff does not have information as to how this particular setback distance was determined.

#### Should the area subject to protection be modified for culverts?

The creek ordinance considers culverted (creeks in underground pipes) the same as open creeks, so long as the culverted portion is in the location of the historic creek.

#### What should be regulated in regards to the area subject to protection?

The current ordinance prohibits construction of "any structure having a roof supported by columns or walls, including dwellings, garages, other accessory buildings and commercial buildings, within thirty feet of the center line of any creek." A Use Permit may be granted by the ZAB for construction of an addition to a single-family home addition under very limited circumstances.

Under the existing ordinance, any pre-existing, roofed structures within thirty feet of the center line of any creek are considered non-conforming structures. In other words, they may legally exist as a pre-existing situation, but according to the creeks ordinance, such structures can only be modified or rebuilt with the approval of a variance. Variances can only be granted if several findings can be made (see creek ordinance, attachment 1). Non-conforming structures in regards

to creeks are therefore treated differently than most other non-conforming structures in Berkeley which are governed by Section 23C.04 of the Zoning Ordinance. Section 23C.04 allows for modifications and even enlargements to non-conforming structures with approval of a Use Permit; the findings for a Use Permit are generally easier to make than for a Variance.

How can/should the City encourage daylighting?

According to the General Plan, it is the City's policy to "[w]henver feasible, daylight creeks by removing culverts, underground pipes, and obstructions to fish and animal migrations." Various General Plan actions call for encouraging daylighting, but say little more. Perhaps the key words on this issue in the General Plan language are "when feasible."

Should the City provide special notice to the property owners identified on the "Creeks Map" that they are potentially regulated under the ordinance?

A concern expressed by some Council members is that many property owners regulated under the current ordinance may not be aware that they are so regulated. This is especially true of those properties where the creek is culverted. Although the recent modifications to the ordinance codify preexisting law, these pre-existing regulations may not have been well understood or consistently applied by staff in the past. With the advent of a more accurate and complete map, staff can more easily identify properties subject to the ordinance. Many property owners, who may have avoided regulation in the past, will now be required to undertake studies and may be prohibited from improvements to their property. Because there has been no systematic notification to property owners of these regulations, many affected owners may not have been aware of these pre-existing regulations. Many may not discover they are regulated until they seek a permit for some home improvement.

How should property regulated under the ordinance be treated after a disaster?

As noted previously, existing roofed structures in a creek setback can only be replaced if granted a variance by the ZAB. This would apply whether the structure was accidentally burned down or destroyed in a disaster. As noted earlier, variances can only be granted if several findings can be made and then only after the usual application and public review procedure. Legal non-conforming structures in a creek setback are therefore treated differently than other non-conforming structures. Other structures are subject to Section 23C.04.090 which allows them to be rebuilt by-right if less than 50% is destroyed; or rebuilt in its entirety with a Use Permit if more than 50% is destroyed.

In her June 2003 draft of possible changes to the Creeks ordinance, the City Attorney presented an alternative process in regard to natural disasters. That process would allow homes to be rebuilt after a natural disaster if the home were "completely destroyed" by the disaster, there is no feasible alternative to replacing the home inside the setback, and other findings. Should the Council wish to have the staff create such an exception, the matter should be referred to the staff for fine-tuning of the recommendation with any policy direction the Council may wish to give in this regard.

Should the City adopt stronger penalties for violation of the ordinance?

The need for stronger penalties has been raised both in regards to illegal activities (grading, etc.) in protected areas, and illegal discharge to creeks. The discharge issue is not part of the creek ordinance, and staff would not recommend that it be discussed except in regard to erosion control, as discussed below.

Should the City adopt stronger guidelines/regulations for addressing run-off, including specific erosion control measures, best-management practices for development, stronger grading protection near creeks, etc.?

This issue has generally arisen in relation to how the City manages erosion control and creek protection measures when work is being done in or near a creek and may affect it. Currently, the City requires that best management practices be applied to new development to protect creeks during construction. While existing regulations ensure that there is little or no negative impact on creeks from new development, the City does not have guidelines for how to improve the creek environment as part of new development projects. Some cities have adopted guidelines to assist homeowners in planning development near creeks. In regards to enforcement, when projects are not in compliance with City requirements, the City has its own enforcement tools (stop-work orders and administrative fines) or it can (and does) call upon the stronger enforcement capacities of the Regional Water Quality Control Board to address serious violations.

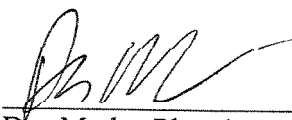
Who is responsible for maintaining culverts on private property?

In the middle and upper reaches of creeks in Berkeley, it is common for underground culverts encasing sections of a creek to run under private property, especially in central and north Berkeley. These culverts were built by private property owners on their property in order to facilitate private development. Thus, when a culvert runs under private property, maintenance of the culvert is the responsibility of the private property owner. Similarly, the City takes responsibility for underground culverts that run under City property and streets. The City is currently the defendant in litigation asserting that the maintenance of private culverts on private property is the City's responsibility. Thus any discussion of this issue would be more appropriate for a closed session with the City Attorney.

CONTACT PERSON

Dan Marks, Planning Director - 981-7401

Approved:



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Dan Marks, Planning Director

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**Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\***

Section 17.08.010 Purpose.

Section 17.08.020 Findings.

Section 17.08.030 Definitions.

Section 17.08.040 Obstructing or interfering with watercourses prohibited.

Section 17.08.050 Setbacks for new construction required.

Section 17.08.060 Construction of walls, drains, bulkheads, etc.--Permit conditions required.

Section 17.08.070 Obstructions or structures declared nuisance when--Notice to remove--City to perform work when--Costs.

Section 17.08.080 Failure to enforce chapter.

Section 17.08.090 Fees.

Not  
included

\* For watercourse design requirements in subdivisions, see Ch. 21.24 of this code.

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Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\*

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**Section 17.08.010 Purpose.**

The purpose of this chapter is to establish a policy on: (1) the issuance of permits for culverting open creeks; (2) the rehabilitation and restoration of natural waterways; and (3) the management of watersheds. (Ord. 5961-NS § 2, 1989)

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Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\*

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**Section 17.08.020 Findings.**

The City Council does find and declare that:

A. Public health and safety requires creek and watershed management and planning in order to control flood and erosion damages. Maintenance of natural channels, including removal of debris and erosion control.

B. A dependence on structural solutions for reduction of property damage such as creek channelization, culverting and channel riprapping, often has been found to result in the loss of property from unanticipated problems associated with their design. Channelization can result in changes in stream meander, bank erosion, channel filling and channel degradation, causing damages by the undercutting of bridges, homes and other structures or by the over-the-bank flows caused by channel filling. Culverts can result in upstream and downstream bank erosion problems and, because debris removal from them is difficult, they can back up flows and cause floods. Undersized culverts and culverts installed at the wrong slope can also cause flooding and serious bank erosion.

C. The use of riprap or other debris to stabilize banks can result in the erosion of streambanks up and downstream of the riprap. Riprap and other debris may decrease channel capacity contributing to potential flood damages.

D. Streams managed as close to a natural system as possible without interference from structures, maintain a geomorphic equilibrium or watercourse best suited for carrying stream flows, and carrying and depositing suspended bed loads.

E. Natural streams provide the most environmental amenities to the community and riparian owners.

F. Streams and their riparian environment should be held as an important public asset in an increasingly endangered environment that provides an unusual urban ecological habitat with recreational and aesthetic value.

G. Culverting or channelization of existing open creeks should only occur if there is an extreme hazard to public health or safety and no other alternatives can prevent the hazard.

H. It is in the interest of the City of Berkeley to encourage the removal of culverts and channels, prevent channel riprapping, and to restore natural watercourses whenever safely possible. (Ord. 5961-NS § 2, 1989)

Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\***Section 17.08.030 Definitions.**

The following definitions shall be applicable in the construction and application of this chapter.

A. "Creek" means a watercourse which carries water from either a permanent or natural source, either intermittently or continuously; and which runs in a defined channel or continuous swale or depression, which later merges with a larger watercourse. The definition includes a channel, swale, depression, or watercourse, whether or not culverted. The definition excludes any part of an engineered system which was developed by a public agency for collection of storm or flood waters, provided however that such part does not follow the original course of the creek. The City of Berkeley may maintain maps and other reliable records, reflecting such creeks for the guidance of the public. The word "creek" will be synonymous with "natural watercourse" as used in the chapter.

B. "Culverting" means the placement or construction of a pipe or box shaped conduit in a creek bed for the purpose of conducting water.

C. "Rehabilitation" means the improvement of a natural watercourse by the use of erosion control technology, revegetation, vegetation management and/or selective channel clearing with the objective to conserve and manage a natural waterway and riparian system.

D. "Restoration" means the unearthing of a culverted stream or natural watercourse and the design of a new open channel to re-create the original stream channel and environment.

E. "Reconstruction" means the partial re-creation of the original natural watercourse by allowing a portion of a culverted stream to flow to the surface and flow through a landscaped riparian environment.

F. "Riprap" means cobbles, rock, concrete pieces or other non-vegetative debris used to protect streambanks against erosion. Riprapping, the placement of riprap on streambanks.

G. "Cribwalls" means a rectangular framework of logs which is filled with soil and/or rocks and planted with cuttings.

H. "Brush matting" means the use of dead or live cuttings from riparian vegetation stacked and secured against streambanks to check erosion and revegetate banks.

I. "Fascines" (sometimes called, "wattles") means bundles of cuttings from riparian plants used to revegetate banks.

J. "Plant cuttings" means sticks cut from riparian shrub and tree branches in their dormant state such as willows and alder, which are buried about halfway in the ground and take root.

K. "Brush layering" means the use of live branches or cuttings which are inserted into the streambanks perpendicular to the slope so that the rooting occurs back into the slope.

L. "Retention basins" means open spaces which hold overbank stream flows and can be used as parks and other open space uses in drier seasons.

M. "Gabions" means wire baskets filled with rocks and soil and planted with seeds, cuttings and rooted plants. They can be used to rebuild streambanks. (Ord. 6716-NS § 1, 2002; Ord. 5961-NS § 2, 1989)

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Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\*

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**Section 17.08.040 Obstructing or interfering with watercourses prohibited.**

It is unlawful for any person, organization, institution, corporation or the City of Berkeley to fill, or cause to be filled, to obliterate or cause to be obliterated, to obstruct or cause to be obstructed, to construct a building bridging a creek or cause such building to be constructed, or in any manner to interfere with or cause to be interfered with, any natural watercourse in Berkeley which carries off at any time of the year any storm water, or any surface waters, which have been precipitated by rains. This chapter does not apply to structures or conditions existing in creeks on or before the effective date of this chapter. (Ord. 5961-NS § 2, 1989)

Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\*

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**Section 17.08.050 Setbacks for new construction required.**

A. Except as otherwise provided in subsection B, it is unlawful for any person, organization, institution, corporation or the City of Berkeley to construct any structure having a roof supported by columns or walls, including dwellings, garages, other accessory buildings and commercial buildings, within thirty feet of the center line of any creek.

Approval for such construction may be granted only by appeal to the Zoning Adjustments Board for a variance. The decision of the Zoning Adjustments Board may be appealed to the City Council pursuant to Chapter 23B.44 of the Berkeley Zoning Ordinance.

B. A residential addition to an existing single-family home may be constructed through the issuance of a Conditional Use Permit pursuant to Chapter 23B.32 of the Berkeley Zoning Ordinance if the Zoning Adjustments Board or the City Council on appeal makes all of the following findings:

1. All portions of the creek on the subject parcel are enclosed within a culvert, which is located below the surface of the land and there is no open creek within 30 feet of the proposed addition on any adjacent parcel.

2. The existing single-family home is bisected by a culverted creek such that at least 30 percent of its footprint is located on both sides of the culverted creek.

3. No portion of the proposed addition is located on land or improvements directly above the culverted creek.

4. There is no feasible alternative for development of the proposed addition on an area outside of the setback required by subsection A because of physical conditions on the site and/or the limitations imposed by otherwise applicable development standards.

5. The existing single-family home has two or fewer bedrooms and is smaller than the median size of single-family homes within a 500 foot radius, measured from the property boundary line of the existing single-family home.

6. The proposed addition shall not increase the size of the home to be larger than the median size of single-family homes within the 500 foot radius in subsection B.5.

7. A report by an independent structural engineer selected by the City and funded by the applicant has concluded that the culvert is sound and structurally adequate to support the existing and proposed improvements or will be made so as part of the proposed project.

8. The proposed addition will not adversely affect the creek.

9. The proposed addition will not be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in the area or neighborhood of such proposed use, or be detrimental or injurious to property and improvements of the adjacent properties, the surrounding area or neighborhood or to the general welfare of the City. (Ord. 6740-NS § 1, 2003; Ord. 5961-NS § 2, 1989)

Chapter 17.08 PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES\*

**Section 17.08.060 Construction of walls, drains, bulkheads, etc.--Permit conditions required.**

The intent of this section is to prohibit culverting and riprapping, unless there is strong evidence that there is no other reasonable means to prevent the erosion of adjacent supports, foundations or other structures.

It is unlawful for any person, organization, institution, corporation or the City of Berkeley to construct or cause to be constructed, any wall, culvert, drain, bulkhead, or other structure in any natural watercourse or creek in the City of Berkeley, or to place riprap or any debris in the channel or on the banks, without first obtaining a permit therefor from the City Engineer. If a permit for construction is granted, the City Engineer shall require the applicant to submit plans and specifications for such a wall, bulkhead, culvert, drain, structure or bank protection work which shall specify the exact location and extent of the project. Any work that has been granted a permit, shall be carried out under the supervision of the City Engineer, or his/her designated representative.

Such a permit will not be granted if any one or more of the following alternatives, or any other is available to solve the problem.

- A. Excavating to restore a natural meander, stream geometry and channel roughness.
- B. Clearing debris cleanup.
- C. Flood proofing: e.g. minor redesign of buildings, relocation of porches or other minor structures, sheds, garages; raising of such structures; raising the grade of adjacent land.
- D. Removal of structures where feasible.
- E. Bank stabilization using vegetation or combination revegetation construction (soil bioengineering) that does not degrade the existing natural environment. This may include the use of vegetated and dirt filled gabions, vegetated wood cribwalls, live and dead brush matting, fascines, brush layering and cuttings, and other similar strategies based on employing plants as the long-term stabilizing materials.
- F. Vegetation management that can include selective clearing that retains a riparian canopy and root structure to preserve riparian habitat, control unwanted undergrowth, and stabilize banks.
- G. Set-back levee construction: flood wall construction on the flood plain.
- H. Changes in site design.

The request for any permit to culvert or perform any construction in a natural watercourse must conform to the requirements of the California Environmental Quality Act (C.E.Q.A.) and its current amendments and guidelines.

If the City engineer recommends the granting of a permit for culverting or any other construction in any natural watercourse, the matter shall be referred to the Public Works Commission for review. If the City engineer denies a permit, the applicant may appeal to the Public Works Commission for review and recommendation. In all cases the decision of the Public Works Commission will be final, unless the matter is appealed within fifteen days to the City Council by the applicant, City staff or an interested party. (Ord. 5961-NS § 2, 1989)