



## CITY OF PALO ALTO OFFICE OF THE CITY CLERK

April 3, 2017

The Honorable City Council  
Palo Alto, California

### **SECOND READING: Adoption of an Ordinance Amending Chapter 16.28 of the Municipal Code to Require Testing, Monitoring and Protective Measures for Temporary Construction-related Groundwater Pumping (Dewatering) (FIRST READING: March 7, 2017 PASSED: 9-0)**

This is the second reading of the construction dewatering Ordinance which was heard by the City Council on March 7, 2017 and passed 9-0. Below is the amended Motion.

**MOTION AS AMENDED RESTATED:** Mayor Scharff moved, seconded by Vice Mayor Kniss to:

- A. Adopt seven new components for the City's Construction Dewatering Guidelines; and
- B. Adopt an Ordinance codifying the Dewatering Guidelines, with the updates recommended by Policy and Services, in the Municipal Code at Chapter 16.28 (Grading and Erosion and Sediment Control); and
- C. Direct Staff to consider four additional requirements and return to Council for adoption, with a goal of making the new requirements applicable for the 2018 construction season; and
- D. All proposed changes for the 2017 Enhancements (and the pre-existing requirements) would apply to all sites that have not received a building permit as of the effective date of the Ordinance.

**MOTION AS AMENDED PASSED:** 9-0

#### **ATTACHMENTS:**

- Attachment A: Ordinance Ground Water(PDF)

Department Head: Beth Minor, City Clerk



Ordinance No. \_\_\_\_\_

Ordinance of the Council of the City of Palo Alto Amending Chapter 16.28 of the Municipal Code to Require Testing, Monitoring and Protective Measures for Temporary Construction-Related Groundwater Pumping (Dewatering)

The Council of the City of Palo Alto does ORDAIN as follows:

**SECTION 1.** Findings and Declarations. The City Council finds and declares as follows:

A. Temporary pumping and discharge of groundwater during construction of below-ground basements and garages removes tens of millions of gallons of groundwater in Palo Alto each year, and discharges this water to the storm drain system.

B. For many years, Palo Alto has prohibited pumping of groundwater after the completion of basement construction.

C. In recent years, concerns have arisen regarding dewatering and its impacts, including significant waste of a community resource, potential damage to neighboring structures, trees and vegetation, and possible impacts on the groundwater system.

D. To begin to address these concerns and gather additional information for potential future action, the Palo Alto City Council adopts this ordinance requiring testing, monitoring and protective measures where temporary construction-related groundwater pumping (dewatering) will occur.

**SECTION 2.** Section 16.28.030 of Chapter 16.28 (Grading and Erosion and Sediment Control) of the Palo Alto Municipal Code is hereby amended to read as follows:

**16.28.030 Definitions.**

When used in this chapter, the following words shall have the meanings ascribed to them in this section.

(a) "Applicant" means any person, corporation, partnership, association of any type, public agency, or any other legal entity who submits an application to the building official for a permit pursuant to this chapter.

(b) "As-graded" means the surface conditions extant on completion of grading.

(c) "Bedrock" means in-place solid rock.

(d) "Bench" means a relatively level step excavated into earth material on which fill is to be placed.

(e) "Best management practices" means a technique or series of techniques which, when used in an erosion control plan, is proven to be effective in controlling construction-related runoff, erosion, and sedimentation.

(f) "Borrow" means earth material acquired from an off-site location for use in grading on a site.

(g) "Building official" means the chief building official of the city of Palo Alto and his/her duly authorized designees.

(h) "City engineer" means the city engineer of the city of Palo Alto and his/her duly authorized designees.

(i) "Civil engineer" means a professional engineer registered in the state of California to practice in the field of civil works.

(j) "Civil engineering" means the application of the knowledge of the forces of nature, principles of mechanics, and the properties of materials to the evaluation, design, and construction of civil works for the beneficial uses of mankind.

(k) "Compaction" means the densification of a fill by mechanical means.

(l) "Drainageway" means a natural or manmade channel which collects and intermittently or continuously conveys storm water runoff.

(m) "Earth material" means any rock, natural soil, or fill, and/or combination thereof.

(n) "Engineering geologist" means a geologist experienced and knowledgeable in engineering geology and certified by the state of California to practice engineering geology.

(o) "Engineering geology" means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

(p) "Erosion" means the wearing away of the ground surface as a result of the movement of wind, water, and/or ice.

(q) "Final erosion and sediment control and storm water pollution prevention plan ('final plan')" means a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site after all other planned final structures and permanent improvements have been erected or installed.

(r) "Grade" means the vertical location of the ground surface. "Existing grade" means the grade prior to grading. "Rough grade" means the stage at which the grade approximately conforms to the approved plan. "Finish grade" means the final grade of the site which conforms to the approved plan.

(s) "Grading" means any land disturbance or land fill, or combination thereof.

(t) "Interim erosion and sediment control and storm water pollution prevention plan ('interim plan')" means a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site during the period in which pre-construction and construction-related land disturbances, fills, and soil storage occur, and before final improvements are completed.

(u) "Key" means a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

(v) "Land disturbance" or "land-disturbing activities" means any moving or removing by manual or mechanical means of the soil mantle or top six inches (6") of soil, whichever is shallower, including but not limited to excavations.

(w) "Land fill" means any human activity depositing soil or other earth materials.

(x) "Manual of standards" means a compilation of technical standards and design specifications published by the Association of Bay Area Governments.

(y) "Permittee" means the applicant in whose name a valid permit is duly issued pursuant to this chapter and his/her agents, employees, and others acting under his/her direction.

(z) "Sediment" means earth material deposited by water or wind.

(aa) "Site" means any lot or parcel of land, or contiguous combination under the same ownership where grading is performed or permitted.

(bb) "Slope" means an inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

(cc) "Soil" means naturally occurring superficial deposits overlying bedrock.

(dd) "Soils engineer" means a professional civil engineer experienced and knowledgeable in the practice of soils engineering and licensed by the state of California for practice in that field.

(ee) "Soils engineering" means the application of the principles of soils mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection and/or testing of the construction thereof.

(ff) "Temporary construction-related dewatering" means temporary pumping of groundwater to facilitate construction of underground structures such as basements and garages.

(~~ffgg~~) "Wet season" means the period from October 1 to April 15.

SECTION 3. Section 16.28.060 of Chapter 16.28 (Grading and Erosion and Sediment Control) of the Palo Alto Municipal Code is hereby amended to read as follows:

**16.28.060 Permit required.**

No person may grade, fill, excavate, store, or dispose of soil and earth materials or perform any other land-disturbing or land-filling activity, or engage in temporary construction-related dewatering, without first obtaining a permit as set forth in this chapter, except when the activity is performed in accordance with one or more of the general or specific exemptions set forth in Sections 16.28.070 and 16.28.080. Exemption from the requirement to obtain a permit does not provide relief from the requirement to conduct all grading activities in conformance with the general grading requirements contained in Sections 16.28.270 through 16.28.340 of this chapter.

SECTION 4. Section 16.28.070 of Chapter 16.28 (Grading and Erosion and Sediment Control) of the Palo Alto Municipal Code is hereby amended to read as follows:

**16.28.070 General exemptions.**

All land-disturbing or land-filling activities or soil storage, and all temporary construction-related dewatering, shall be undertaken in a manner designed to minimize surface runoff, erosion, and sedimentation and to safeguard life, limb, property, and the public welfare. A person performing such activities need not apply for a permit pursuant to this chapter, if all the following criteria are met:

- (a) The site upon which land area is to be disturbed or filled is 10,000 square feet or less, except where temporary construction-related dewatering will be required.
- (b) Natural and finished slopes are flatter than 10:1.
- (c) Volume of soil or earth materials stored is 100 cubic yards or less.
- (d) Rainwater runoff is diverted, either during or after construction, from an area smaller than 5,000 square feet.

- (e) An impervious surface, if any, of less than 5,000 square feet is created.
- (f) No drainageway is blocked or has its storm water carrying capacities or characteristics modified.
- (g) The activity does not take place within 100 feet by horizontal measurement from the top of the bank of a watercourse, the mean high watermark (line of vegetation) of a body of water or the boundary of the wetlands associated with a watercourse or water body, whichever distance is greater.

SECTION 5. Section 16.28.155 is hereby added to Chapter 16.28 (Grading and Erosion and Sediment Control) to read as follows:

**16.28.155 Additional Requirements for Temporary Construction-Related Dewatering**

(a) In addition to applicable requirements in this Chapter 16.28, where temporary construction-related dewatering will be required, applicants also shall:

(1) Submit a dewatering geotechnical study conforming to regulations issued by the City Engineer, adhere to its findings, and make modifications as directed by the City Engineer.

(2) Install and maintain at least one fill station meeting standards established by the City Engineer.

(3) With the consent of neighboring property owners, water trees and other vegetation on adjacent properties.

(4) Verify the anticipated drawdown curve in the dewatering geotechnical study with a pump test performed on monitoring wells installed on the project site, as specified by the City Engineer.

(5) Prior to pumping, survey and mark elevations on structures on adjacent parcels.

(6) Submit periodic measurements and reports as required by the City Engineer.

(7) Continuously comply with all permit conditions, performance measures, regulations and requirements established by the City Engineer. Promptly implement corrective actions identified by the City to address any compliance issues.

(b) Prior to pouring a basement slab, groundwater may be pumped no deeper than three feet below the depth of the slab, measured at the center. After the slab is poured, groundwater may be pumped no deeper than one foot below the center.

(c) Dewatering may not be conducted before April 1 or after October 31. Pumping permits for single family residential basements are limited to ten (10) weeks, with an additional two (2) week start-up period. At the end of the start-up period, the applicant must demonstrate compliance with all performance and water quality standards established by the City Engineer. The City Engineer may adopt a regulation specifying time limitations for commercial property pumping.

(d) The City Engineer is authorized to establish and from time to time revise regulations to implement this Section and advance the goals of minimizing temporary construction-related dewatering and reducing its impacts.

(e) Where pumping is continuously limited to no more than 30 gallons per minute, the City Engineer is authorized to waive requirements for a geotechnical study, verification procedures and pump time limitations.

SECTION 6. Severability. If any provision, clause, sentence or paragraph of this ordinance, or the application to any person or circumstances, shall be held invalid, such invalidity shall not affect the other provisions of this Ordinance which can be given effect without the invalid provision or application and, to this end, the provisions of this Ordinance are hereby declared to be severable.

SECTION 7. CEQA. The City Council finds and determines that this Ordinance is not a project within the meaning of section 15378 of the California Environmental Quality Act (“CEQA”) because it has no potential for resulting in physical change in the environment, either directly or ultimately. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility of a significant effect on the environment in that this Ordinance simply clarifies existing local regulations.

//

//

//

//

//

//

//

//



SECTION 8. Effective Date. This ordinance shall be effective on the thirty-first date after the date of its adoption.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

ATTEST:

APPROVED:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
Director of Public Works/ City Engineer