City Council Staff Report

Date: January 20, 2010 LEGISLATIVE

Subject: AN AMENDMENT TO CHAPTER 8.70 OF THE PALM SPRINGS MUNICIPAL CODE RELATING TO STORMWATER RETENTION REQUIREMENTS FOR NEW DEVELOPMENT

From: David H. Ready, City Manager

Initiated by: Public Works and Engineering Department

SUMMARY

The City is a co-Permittee to a new National Pollution Discharge Elimination System ("NPDES") permit issued by the Colorado River Basin Regional Water Quality Control Board ("Regional Board"). The terms of the new NPDES permit have many new requirements of the City in evaluating and approving new development as it relates to protecting water quality. Specifically, the permit requires the City to "*Use an ordinance or other regulatory mechanism to address post-construction Urban Runoff from New Development and Redevelopment Projects to the extent allowable under state or local law.*" The attached draft ordinance would amend Chapter 8.70.100 "New development and redevelopment" of the Palm Springs Municipal Code ("PSMC") to incorporate additional requirements to satisfy the terms of the City's new NPDES permit.

RECOMMENDATION:

1) Waive the reading of the ordinance text in its entirety and read by title only.

2) Introduce on first reading Ordinance No. ____, "AN ORDINANCE OF THE CITY OF PALM SPRINGS, CALIFORNIA, AMENDING SECTION 8.70.100 OF THE PALM SPRINGS MUNICIPAL CODE FOR THE PURPOSE OF ESTABLISHING ON-SITE STORMWATER RETENTION REQUIREMENTS."

BACKGROUND:

The Federal Water Pollution Control Act, amended in 1977 as the "Clean Water Act", was amended in 1987 to establish new controls on industrial and municipal storm water discharges, and implemented the requirement for cities and counties to have NPDES permits for storm water discharges through their municipal separate storm sewer system ("MS4"). The Clean Water Act is administered by each state, and in California,

the administration is further delegated to various Regional Boards. Urban runoff is a waste, as defined in the California Water Code, which contains pollutants that could adversely affect the quality of the waters of the State. The discharge of urban runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the United States as defined in the Clean Water Act. Urban runoff includes those discharges from residential, commercial, industrial, and construction areas within the City, and must be regulated.

The City's first NPDES permit was issued in 1996, and was issued by the Regional Board for a period of 5 years. In 1997 the City adopted Ordinance 1543 creating Chapter 8.70 "Stormwater Management and Discharge Controls" of the PSMC, which introduced requirements relating to runoff for new development and redevelopment projects within the City. Specifically, Section 8.70.100 "New development and redevelopment" of the PSMC relates directly to regulating runoff from development projects (see Attachment 1). Adoption of this ordinance was a requirement of the Regional Board's issuance of a NPDES permit to the City in 1996, requiring the City to implement general measures to prevent pollution resulting from new development and redevelopment projects throughout the City. These general measures were limited to promoting development to consider increasing permeable areas to reduce runoff; to direct runoff to permeable areas to avoid releasing runoff downstream; and to maximize stormwater storage for reuse.

A successor NPDES permit was issued in 2001, and most recently in 2008. The terms of the latest NPDES permit have extensive new regulations relating to post-construction, long-term operation and maintenance of best management practices ("BMPs") that prevent or minimize water quality impacts to the maximum extent practical ("MEP"). Whereas before, the terms of our NPDES permits limited regulations of development projects to addressing BMPs during construction, now the City must regulate development projects to ensure post-construction there are structural and non-structural BMPs installed and implemented to ensure water quality is protected long-term.

In the desert, generally cities (including Palm Springs), require that development projects address increased stormwater runoff due to development of a site by providing retention basins or equivalent measures on-site where the increased runoff is directed. This policy is in place to ensure that downstream properties are protected from flooding in the event there is no storm drain system to accept the increased runoff, or if the downstream street and/or storm drain system lacks capacity to convey the increased runoff. The use of a retention basin as a BMP to address water quality issues is also common. By conveying runoff to a retention basin, it allows the runoff to percolate into the ground or evaporate into the air. Percolation and evaporation of runoff are some of the best methods of treating runoff and eliminating contaminants from it, thereby minimizing impacts to water quality to the MEP as required by the Clean Water Act.

The attached Ordinance would amend Section 8.70.100 "New development and redevelopment" of the PSMC by deleting it in its entirety and replacing it with specific requirements relating to stormwater retention. Whereas the current section of the PSMC merely provides general guidance on addressing stormwater issues, the new section of the PSMC will implement general policies of stormwater retention that have been administratively established by staff consistent with general engineering guidelines and water law requiring that no property be developed in a way that contributes to flooding of upstream or downstream properties.

Specifically, the City Engineer has required on-site stormwater retention for development projects consistent with a retention basin policy developed in 2004 by a "Developers Round Table" established by the City at that time to review various polices and procedures used by City staff in the development review and entitlement process. The retention basin policy that has been incorporated into the attached ordinance includes the following parameters and exclusions:

- The amount of stormwater runoff to retain on-site is equal to the difference in the amount of runoff from the 100-year storm flowing off of the project site in the developed and undeveloped conditions, or the "incremental volume of stormwater runoff".

- For single family residential in-fill lots, if a drainage area is 70% or more developed, individual single family residential projects located on an in-fill lot are exempt from the requirement to provide on-site retention, except in the case of hillside lots. Hillside lots must provide on-site retention for the incremental volume of stormwater runoff.

- For non-residential (commercial or industrial) in-fill lots, if a drainage area is 70% or more developed, non-residential (commercial or industrial) construction projects two (2.0) acres or less in size are exempt from the requirement to provide on-site retention, except in the case of hillside lots. Hillside lots must provide on-site retention for the incremental volume of stormwater runoff.

- Site plans must be designed to ensure that adequate area exists for on-site retention, minimizing the use of parkway and setback landscaped areas exclusively as retention areas. Parkway and setback landscaped areas are required to balance the need for retention and community/project design. As a general rule, a maximum of 40% to 50% of the linear footage of any street parkway landscape area may be designed as a retention area.

It is recommended that the City Council adopt the attached Ordinance to formally codify, as required by the new NPDES Permit issued by the Regional Board, the on-site stormwater retention requirements that are currently being implemented by staff on new development projects throughout the City.

FISCAL IMPACT:
None.

SUBMITTED:

Prepared by:

Marcus L. Fuller
Assistant Director of Public Works

Recommended by:

David J. Barakian
Director of Public Works/City Engineer

Approved by:

Thomas J. Wilson, Asst. City Manager

David H. Ready, City Manager

Attachments:

1. Section 8.70.100 "New development and redevelopment" of the PSMC
2. Ordinance

8.70.100 New development and redevelopment.

To minimize the discharge and transport of pollutants, the city may require that any new development or redevelopment project control the volume and rate of stormwater runoff from the project so as to prevent any deterioration of water quality that may impair the subsequent or competing uses of the water. The director of transportation may establish standards and guidelines implementing BMPs designed to control the rate and volume of stormwater runoff from new developments and redevelopments as may be appropriate to minimize the discharge and transport of pollutants.

The following methods and standards for controlling stormwater runoff volumes, rates, and pollutants, among others, may be required by the director of transportation:

(1) Increase Permeable Areas.

Avoid placing impervious surfaces in highly porous soil areas; incorporate landscaping and open space into the project design; use porous materials for or near driveways and walkways; incorporate detention ponds and infiltration pits into the project's design; avoid placing pavement and other impervious surfaces in low lying areas.

(2) Direct Runoff to Permeable Areas.

Direct stormwater runoff away from impermeable areas to swales, berms, green strip filters, gravel beds, and french drains. Install rain-gutters and orient them toward permeable areas. Modify the grade of the property to divert flow to permeable areas and minimize the amount of stormwater runoff leaving the premises. When designing curbs, berms or other structures, avoid designs which isolate permeable or landscaped areas.

(3) Maximize Stormwater Storage for Reuse.

Require retention structures, subsurface areas, cisterns, or other structures to store stormwater runoff for reuse or slow release.

(Ord. 1543 § 1 (part), 1997)

ORDINANCE NO. ____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PALM SPRINGS, CALIFORNIA, AMENDING SECTION 8.70.100 OF THE PALM SPRINGS MUNICIPAL CODE FOR THE PURPOSE OF ESTABLISHING ON-SITE STORMWATER RETENTION REQUIREMENTS.

City Attorney Summary

This Ordinance establishes on-site stormwater retention requirements for new development projects within the City pursuant to an RWQCB Order.

WHEREAS, the City has adequate legal authority by and through the Palm Springs Municipal Code and the Riverside County Code to implement and enforce the legal requirements related to on-site stormwater retention imposed upon the City to date under Regional Water Quality Control Board (RWQCB) Order No. R7-2008-0001, consistent with the requirements set forth in the regulations of the Clean Water Act, 40, Code of Federal Regulations 122.26(d)(2)(i)(A-F), and to the extent permitted by State and Federal Law and subject to the limitations on municipal action under the California and United States Constitutions; and

WHEREAS, adoption of an implementing ordinance is a requirement of the National Pollutant Discharge Elimination System (NPDES) program as an alternative for the City in lieu of establishing additional Site Design Best Management Practices (BMP), and it will further allow the City to eliminate developer requirements under the Riverside County Water Quality Management Plan (WQMP), such as the aforesaid Site Design BMP, stormwater treatment, and hydromodification; and

WHEREAS, adoption of the implementing ordinance will result in financial savings to developers and the City as relates to the development and review of WQMP.

THE CITY COUNCIL OF THE CITY OF PALM SPRINGS DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Section 8.70.100, Chapter 8.70, Title 8 of the Palm Springs Municipal Code shall be amended to delete the existing provisions thereof in their entirety, and replace said provisions as follows:

8.70.100 On-Site Stormwater Retention

(a) When required by the City Engineer, the applicant shall submit hydrology and hydraulic calculations, and drainage area maps to the City, to determine the quantity of stormwater runoff generated by a site or tributary to it, as well as its effects on the site, and to upstream or downstream properties. Erosion and sediment transfer studies, and other supporting data may be required as determined by the City Engineer.

(b) Limits of inundation on the subject property during condition of specified storm frequencies may be required to be delineated on the grading plan, along with the submittal of supporting calculations.

(c) The use of streets for flood control and drainage purposes may be prohibited by the City Engineer if the use of the streets is not in the interest of the public health, safety, and welfare. If the City Engineer permits the use of streets for flood control and drainage purposes, the 10-year storm frequency design discharge shall be contained between the tops of curbs or asphalt concrete dikes, and the 100-year storm frequency design discharge shall be contained within the street right-of-way. The tributary drainage area for which an applicant is responsible shall extend to the centerline of adjacent public streets.

(d) On-site stormwater retention requirements for new development and redevelopment projects in the City of Palm Springs are defined as follows:

(i) A required on-site stormwater retention system shall have sufficient capacity to contain the volume of stormwater runoff representing the difference between the existing (undeveloped) condition and the proposed (developed) condition resulting from the most conservative duration (1-hour, 3-hour, 6-hour, or 24-hour) 100-year storm (hereafter defined as the "project storm"). This volume of stormwater runoff is defined as the "incremental volume of stormwater runoff".

(ii) For single family residential in-fill lots, if a drainage area is 70% or more developed, individual single family residential projects located on an in-fill lot will be exempt from the on-site stormwater retention requirements, except in the case of hillside lots. A "drainage area" is defined as the area within the boundaries of the separate drainage areas defined on the Master Drainage Plan for the Palm Springs Area (either "North", "Central", "South", "East", "Southeast", or "Eagle Canyon") or as may be determined by the City Engineer. Front yards shall drain to the street unless constrained by the overall lay of the land. Hillside development shall be designed to retain on-site the incremental volume of stormwater runoff.

(iii) For non-residential (commercial or industrial) in-fill lots, if a drainage area is 70% or more developed, non-residential (commercial or industrial) construction projects two (2.0) acres or less in size, will be exempt from the on-site stormwater retention requirements, except in the case of hillside development. Hillside development shall be required to retain on-site the incremental volume of stormwater runoff.

(iv) If an existing retention or disposal site is available and has adequate capacity to accept the incremental volume of stormwater runoff, an on-site retention system may be eliminated if a drainage system is provided which adequately conveys the incremental volume of stormwater runoff to the existing retention or disposal site as approved by the City Engineer. Such a drainage system shall include a

provision to fully address disposal of nuisance water to the satisfaction of the City Engineer.

(v) On-site retention areas shall be clearly shown on site plans to demonstrate compliance with these stormwater retention requirements. Site plans shall be designed to ensure that adequate area exists for on-site retention, minimizing the use of parkway and setback landscaped areas exclusively as retention areas. Parkway and setback landscaped areas shall balance the need for retention and community/project design. As a general rule, a maximum of 40% to 50% of the linear footage of any street parkway landscape area may be designed as a retention area. Retention basin side slopes and depth shall be subject to the approval of the City Engineer.

(vi) In the design of retention facilities, the maximum percolation rate shall be two inches per hour. The percolation rate shall be considered zero unless the applicant provides site-specific data that indicates otherwise.

(vii) The site shall be graded to allow stormwater runoff in excess of the incremental volume of stormwater runoff to flow out of the site through a designated overflow outlet and into the historic drainage relief route. Stormwater runoff historically received from adjoining property shall be received and retained on-site, or passed through to the historic downstream drainage relief route.

(viii) No site design shall cause any increase in flood boundaries, flood levels, flood duration or flood occurrence in any off-site area.

(e) The civil engineer or design professional responsible for preparation of the plans shall certify that the building pads to be created through any proposed grading are free from inundation from stormwater runoff from the project storm, and to provide floodplain elevations and widths, sheet flow depths, floodway elevation and widths (in accordance with the Palm Springs Municipal Code Chapter 8.68 for Flood Damage Prevention), and any other data required by the City Engineer, or by any applicable county, state, or federal flood protection or insurance program or requirement.

SECTION 2. If any section or provision of this Ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, or contravened by reason of any preemptive legislation, the remaining sections and/or provisions of this ordinance shall remain valid. The City Council hereby declares that it would have adopted this Ordinance, and each section or provision thereof, regardless of the fact that any one or more section(s) or provision(s) may be declared invalid or unconstitutional or contravened via legislation.

SECTION 3. The Mayor shall sign and the City Clerk shall certify to the passage and adoption of this Ordinance and shall cause the same, or the summary thereof, to be published and posted pursuant to the provisions of law and this Ordinance shall take effect thirty (30) days after passage.

ADOPTED THIS _____ DAY OF _____, 2010.

_____
STEPHEN P. POUGNET, MAYOR

ATTEST:

_____
JAMES THOMPSON, CITY CLERK

APPROVED AS TO FORM:

_____
DOUGLAS C. HOLLAND, CITY ATTORNEY

CERTIFICATION

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss.
CITY OF PALM SPRINGS)

I, JAMES THOMPSON, City Clerk of the City of Palm Springs, California, do hereby certify that Ordinance No. ____ is a full, true, and correct copy, and was introduced at a regular meeting of the Palm Springs City Council on _____, 2010, and adopted at a regular meeting of the City Council held on _____, 2010 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
James Thompson, City Clerk
City of Palm Springs, California