# DOWNTOWN LANCASTER SPECIFIC PLAN



# CHAPTER 4 - DEVELOPMENT PROGRAM

## 4.1 Introduction

This chapter provides an overview of the preferred development plan and infrastructure needed to support the Specific Plan. It begins by summarizing the preferred development plan, which provides the basis for assumptions made in the infrastructure assessments. An overview of Downtown traffic, parking, water, sewer, and storm drain infrastructure studies is also provided, while the complete studies are located within the Appendices.

### 4.2 DOWNTOWN OVERVIEW

The Specific Plan provides for a pedestrian-friendly Downtown with a mix of commercial, office, residential and public land uses. The Vision Plan (Chapter 3) identifies opportunities for redevelopment, enhancement, and expansion for key sites, supporting and complementing the land uses that are desired for Downtown. As described in the Chapter 3 – Community Based Vision for Downtown, a total of seven districts are identified and discussed in detail within Chapter 5 –Regulating Code. The Downtown Specific Plan area will provide for the opportunity to develop a maximum total of 924,848 square feet of retail service uses, 973,956 square feet of office/civic/public spaces, and 3,525 dwelling units from single family to apartment lofts. Refer to Table 4.1, Development Plan Buildout Summary.

Table 4-1: Development Plan Buildout Summary

District	Retail/ Service	Office/Civic /Public	Residential (du's)
Cedar Avenue Arts	115,606 sf.	73,047 sf.	176
Civic Village	115,606 sf.	292,187 sf.	970
Commerce	138,727 sf.	170,442 sf.	441
Gateway	69,364 sf.	48,698 sf.	264
Neighborhood Office	23,121 sf.	73,047 sf.	264
Boulevard	254,333 sf.	146,093 sf.	599
Transit	208,091 sf.	170,442 sf.	811
*TOTALS	924,848 sf.	973,956 sf.	3,525 du

<sup>\*</sup>Assumes 2030 buildout with 25% adjustment for future condition, includes existing development plus future

Note: The Residential numbers within the districts are estimated and should not be used to regulate/limit development.

Through the Regulating Code, the Specific Plan establishes a new, flexible approach to regulating Downtown land use. The Regulating Code focuses attention on the form, placement, and appropriate use of buildings. Its design standards and guidelines promote an attractive and pedestrian oriented environment, and maximum building heights are provided.

### 4.3 COMMUNITY FACILITIES

The Downtown Lancaster Specific Plan provides the opportunity to develop a variety of public facilities to enhance the Downtown area and provide a centralized community meeting place. Some of the public facilities envisioned within the general vicinity of the "Main Street" are potential enhanced plaza areas adjacent to the LPAC and library, in addition to convertible streets.

### 4.4 DOWNTOWN CIRCULATION PLAN

As a component of this project, comprehensive traffic assessment was conducted to identify existing conditions and to forecast future conditions. Refer to Appendix B, Traffic Impact, for a detailed discussion.

### EXISTING CIRCULATION

Circulation in the Downtown area is based on a grid street system. Downtown is centered along Lancaster Boulevard, and the main arterial streets used to access Downtown are 10th Street West and Sierra Highway. Many local streets and alleys make up the Downtown grid. Existing circulation facilities in the Specific Plan area are described below.

<u>10th Street West</u> is five-lane divided roadway (three lanes north, two lanes south) with a continuous left-turn lane in the vicinity of Lancaster Boulevard, trending in a north-south direction. On-street parking is prohibited on 10th Street West in the downtown Specific Plan area.

<u>11<sup>th</sup> Street West</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on 11<sup>th</sup> Street West.

<u>Beech Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Beech Avenue.

<u>Cedar Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Cedar Avenue.

<u>Date Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Date Avenue.

Elm Avenue is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Elm Avenue.

<u>Fig Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Fig Avenue. Fig Avenue is discontinuous in the downtown Specific Plan area, terminating on the north at Lancaster Boulevard before resuming north of Kettering Street.

<u>Fern Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Fern Avenue.

<u>Gadsden Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Gadsden Avenue. Gadsden Avenue is discontinuous in the downtown Specific Plan area, terminating on the north at Kildare Street.



<u>Genoa Avenue</u> is a two-lane undivided roadway, trending in a north-south direction. On-street parking is permitted on Genoa Avenue. Genoa Avenue terminates on the north at Lancaster Boulevard.

<u>Kettering Street</u> is a two-lane undivided roadway, trending in an east-west direction. On-street parking is permitted on Kettering Street. Kettering terminates on the west at Fern Avenue and to the east at Beech Avenue.

<u>Kildare Street</u> is a two-lane undivided roadway, trending in an east-west direction. On-street parking is permitted on Kildare Street between 10<sup>th</sup> Street West and Gadsden Avenue and prohibited between Gadsden Avenue and Fern Avenue.

<u>Lancaster Boulevard</u> is a four-lane divided roadway, with a continuous left-turn lane, trending in an east-west direction. On-street parking is permitted on Lancaster Boulevard.

<u>Milling Street</u> is a two-lane undivided roadway trending in an east-west direction. On-street parking is permitted on Milling Street. Milling Street terminates on the west at Genoa Avenue and to the east at Sierra Highway.

<u>Newgrove Street</u> is a two-lane undivided roadway trending in an east-west direction. On-street parking is permitted on Newgrove Street. Newgrove Street terminates on the east at Sierra Highway.

<u>Sierra Highway</u> is five-lane divided roadway (three lanes northwest, two lanes southeast) with a continuous left-turn lane in the downtown Specific Plan study area. Sierra Highway trends in a northwest-southeast direction parallel to the Union Pacific Railroad. On-street parking is prohibited on Sierra Highway in the Specific Plan study area with the exception of the westerly side of Sierra Highway between Milling Street and Newgrove Street.

Currently, the street network is operating at an acceptable Level of Service (LOS) during the a.m. and p.m. peak hour according to City of Lancaster performance criteria.

#### CIRCULATION PLAN

The Specific Plan's Circulation Plan in the Downtown provides a "Main Street" environment along Lancaster Boulevard, designed to incorporate traffic calming measures to reduce traffic speeds, enhance pedestrian safety, and promote walkability of the area. In addition, many of the streets adjacent to the "Main Street" are designed with pedestrians in mind and to enhance alternative connections. As part of the Circulation Plan, the City is exploring the possibility of incorporating a traffic circle at the intersection of 10th Street and Lancaster Boulevard.

The roadway network includes a variety of cross-sections to address a more pedestrian-friendly environment and enhances opportunities for linkages to the proposed park to the north and the Metro Link station to the east. Refer to Chapter 5.6, Design Regulations and Guidelines, T. Streets, for detailed cross-sections. Traffic calming measures are proposed within the Circulation Plan that will slow traffic, reduce traffic noise, and improve pedestrian safety, and so contribute to safe and walkable streets. Traffic-calming methods have been incorporated in the Main Street, including corner bump-outs, parallel and perpendicular parking areas, and enhanced intersection paving areas.

For the purposed of this Specific Plan, the Downtown Lancaster Specific Plan Traffic Impact Analysis provides forecasts for traffic impacts under two scenarios: proposed project build-out with Lancaster Boulevard narrowed to two lane Main Street between 10th Street West and Sierra Highway, and with

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Lancaster Boulevard retaining four lanes. As briefly discussed below, by implementing the suggested improvements, the narrowing of Lancaster Boulevard to two lanes is feasible, with the additional improvement of 10<sup>th</sup> Street West and Lancaster Boulevard.

#### Two-Lane Lancaster Boulevard Scenario

With the addition of project-generated trips, the following four study intersections are forecast to operate at a deficient Level of Service(LOS E or worse) according to City of Lancaster performance criteria for forecast existing plus project with two-lane Lancaster Boulevard conditions:

- ◆ 10th Street West/Lancaster Boulevard (p.m. peak hour only);
- ◆ Genoa Avenue/Lancaster Boulevard (p.m. peak hour only);
- ◆ Fig Avenue/Lancaster Boulevard (p.m. peak hour only); and
- ◆ Sierra Highway/Milling Street (both a.m. and p.m. peak hours).

The incorporation of the following recommended improvements for forecast existing plus project with two-lane Lancaster Boulevard conditions include:

- ♦ 10th Street West/Lancaster Boulevard Modify the westbound Lancaster Boulevard approach from one left-turn lane, one through lane and one right-turn lane to consist of two left-turn lanes, one through lane and one right-turn lane. It is worth noting this improvement reinstates the four-lane approach matching existing conditions with a restripe to provide dual left-turn lanes. Also, an alternate improvement under consideration by City Staff includes construction of a roundabout at the 10th Street West/Lancaster Boulevard intersection which is being analyzed by Roundabouts and Traffic Engineering.
- ◆ Genoa Avenue/Lancaster Boulevard Restrict northbound left-turn movement from Genoa Avenue to westbound Lancaster Boulevard. Implementation of the northbound left-turn restriction at the Genoa Avenue/Lancaster Boulevard intersection is forecast to divert some traffic on Genoa Avenue to Gadsden Avenue.
- ◆ Fig Avenue/Lancaster Boulevard Restrict northbound left-turn movement from Fig Avenue to westbound Lancaster Boulevard. Implementation of the northbound left-turn restriction at the Fig Avenue/Lancaster Boulevard intersection is forecast to divert some traffic on Fig Avenue to Elm Avenue and Fern Avenue.
- ◆ Sierra Highway/Milling Street Signalize intersection.

The proposed project two-lane Main Street with the incorporation of the above improvements would not result in significant adjustments to the adjacent study intersections for forecast existing plus project with two-lane Lancaster Boulevard conditions.

### Four-Lane Lancaster Boulevard Scenario

Under the four-lane scenario with the addition of project-generated trips, the following three study intersections are forecast to operate at a deficient LOS (LOS E or worse) according to City of Lancaster performance criteria for forecast existing plus project with four-lane Lancaster Boulevard conditions:

- ◆ Genoa Avenue/Lancaster Boulevard (p.m. peak hour only);
- ◆ Fig Avenue/Lancaster Boulevard (p.m. peak hour only); and
- ◆ Sierra Highway/Milling Street (both a.m. and p.m. peak hours).



The following improvements are recommended under the forecasted existing plus project with four-lane Lancaster Boulevard conditions:

- ◆ Genoa Avenue/Lancaster Boulevard Restrict northbound left-turn movement from Genoa Avenue to westbound Lancaster Boulevard. Implementation of the northbound left-turn restriction at the Genoa Avenue/Lancaster Boulevard intersection is forecast to divert some traffic on Genoa Avenue to Gadsden Avenue.
- ◆ Fig Avenue/Lancaster Boulevard Restrict northbound left-turn movement from Fig Avenue to westbound Lancaster Boulevard. Implementation of the northbound left-turn restriction at the Fig Avenue/Lancaster Boulevard intersection is forecast to divert some traffic on Fig Avenue to Elm Avenue and Fern Avenue.
- ◆ Sierra Highway/Milling Street Signalize intersection.

### 4.5 DOWNTOWN PARKING PLAN

As a component of this project, comprehensive parking assessment was conducted to identify existing conditions and to forecast future conditions. Refer to Appendix C, Parking Analysis, for a detailed discussion.

## EXISTING PUBLIC PARKING SUPPLY / UTILIZATION

#### **Existing Public Parking Supply**

Existing parking within the Downtown area is provided through a combination of on-street parking and parking lot areas both in front of the buildings along Lancaster Boulevard and behind (see Appendix C). A physical survey was conducted to evaluate the current supply of public parking in the Specific Plan area, with on-street parking capacity defined as the segment length divided by typical parking stall length of twenty feet. The survey conducted identified a total of 2,049 off-street parking spaces and 730 on-street parking spaces for a total of 2,779 parking spaces located within the Specific Plan area.

#### Existing Public Parking Utilization

Based on existing public parking capacity and parked vehicles using public parking capacity, existing public parking utilization was calculated by dividing the number of parked vehicles (demand) by the available number of public parking spaces (capacity). A total of two out of 33 off-street public parking zones and four out of 55 on-street public parking zones were parked at 100 percent capacity at some point during the day. During the peak hour of parking utilization, occurring between 11 a.m. and 12 p.m., parking in the Downtown area was 38 percent utilized. Based on the Downtown area's 2,779 parking space parking supply, the current excess parking supply is approximately 1,700 parking spaces for existing conditions.

### PROJECT PARKING

The Specific Plan area would include a variety of parking opportunities through incorporation of various design solutions from providing on-site commercial and residential parking opportunities from tuck under to structured parking facilities, in addition to parallel and perpendicular parking along the Main Street (see Chapter 3, Figure 3-2, Vision Poster, and Chapter 5, Regulating Code). As shown within Table 4-2, based on the parking requirements per proposed use type, a total of 4,911 parking spaces would be needed, while Table 4-3, provides the parking for existing plus buildout of the proposed Specific Plan area.

In addition to parking required in each district for proposed land uses, existing off-street parking spaces displaced by the proposed project will need to be replaced in accordance with Specific Plan parking

requirements. For example, if development were to occur on a portion of the Lancaster Public Library parking lot, the new development would be required to provide parking for both the proposed land use, and the displaced Library parking in accordance with the parking requirements in the Specific Plan.

Table 4-2: Forecast Specific Plan Project Parking Demand

Land Use	Net Land Use Increase	Downtown Lancaster Specific Plan Parking Code Requirement <sup>1</sup>	Parking Spaces Required
Commercial (Office/Civic)	333,937 square feet	2.2 spaces/1,000 square feet	736
Shopping Center (Retail & Service)	448,970 square feet	2.0 spaces/1,000 square feet	901
Residential	3,274 dwelling units	1.0 resident spaces/dwelling unit	3,274
Total Parking Required			4,911

Note: 1 = Parking code identified is proposed as part of the Downtown Lancaster Specific Plan.

Table 4-3: Forecast Parking Demand of Proposed Project by District

Downtown Lancaster Specific Plan District	Civic/Office Project Component Parking Demand	Commercial Project Component Parking Demand	Residential Project Component Parking Demand	Total Additional Parking Spaces Required to Satisfy City Code <sup>1</sup>
Cedar Avenue Arts	61	88	175	324
Civic Village	-3	215	758	970
Commerce	308	92	441	841
Gateway	42	55	262	359
Neighborhood Office	-41	-1	227	185
Boulevard	56	192	599	847
Transit	313	260	811	1,384
Total	736	901	3,274	4,911

Note: 1 = Parking code identified is proposed as part of the Downtown Lancaster Specific Plan.

# 4.6 DOWNTOWN WATER SYSTEM PLAN

This section describes the water system improvements anticipated to meet the demands of the Development Plan. As this Specific Plan is a policy-level plan, note that the timing of all infrastructure improvements identified in this discussion represents the ultimate buildout conditions of the Specific Plan area. Refer to Appendix D, Water & Wastewater Report.



#### **EXISTING DOMESTIC WATER SYSTEM**

Domestic water service to the Specific Plan area is provided by the Los Angeles County Department of Public Works (LADPW) – Waterworks Division. LADPW Waterworks Division 40 operates and maintains the public water distribution system, meeting domestic demands and providing fire protection to this area of Lancaster. The usage factors were provided in the form of maximum day demand factors, and thereby represent the highest daily (driest summer day) demand for the year. Following are the maximum day demand factors used as the basis for demand calculation:

- ◆ Residential (Single Family) 1,500 gallons per day/dwelling unit
- ◆ Residential (Multi-Family) 1,000 gallons per day/dwelling unit
- ◆ Light Commercial/Retail 4,000 gallons per day/acre
- ◆ Institutional/Public Facilities 4,000 gallons per day/acre

Using the water peaking factors of the Los Angeles County Department of Public Works, average demand is estimated to be half the maximum day demand, and peak hour demand is estimated to be twice the maximum day demand. Based on existing land use data, existing average day demand is estimated to be 220,634 gallons per day and the existing maximum average day demand is estimated to be 441,268 gallons per day.

### FUTURE DOMESTIC WATER SYSTEM

Using the proposed land uses for the Specific Plan area and LADPW factors described above, the levels of day demand at ultimate build-out are estimated to be:

- ◆ Average Day Demand = 1.30 million gallons per day
- ◆ Maximum Day Demand = 2.59 million gallons per day
- ◆ Peak Hour = 3,600 gallons per minute

Currently, the existing water system serving the Specific Plan area based on the more stringent Los Angeles County Fire Department fire flow standards is incapable of supplying fire flows, and will need to be upgraded to minimum pipeline areas for transmission of 1,250 gpm (residential) and 5,000 gpm (multi-family, commercial, institutional) flows at less than 15 feet per second.

An increase in water storage is indicated by the need for fire flow protection, which prompts an additional 1.5 million gallons of storage, and by the anticipated increase in day demand. An additional 2.59 million gallons of storage is recommended to support service of maximum-day demand at ultimate build-out.

Based on the anticipated increase in demand, current-day fire flow standards, and the age of existing pipelines, a new looped distribution system will be constructed. Coordination with the LADPW Waterworks Division 40 is recommended to verify transmission capacity and that adequate storage is available or planned to support development.

# 4.7 DOWNTOWN WASTEWATER SYSTEM PLAN

This section provides a comparison between existing demand for wastewater capacity and the demand that is anticipated due to the proposed land uses. Refer to Appendix D, Water & Wastewater Report.

#### **EXISTING WASTEWATER SYSTEM**

Sewer service collection is provided by gravity sewer pipelines owned by the City of Lancaster and maintained by the Los Angeles County Department of Public Works – Consolidated Sewer Maintenance Division. Regional wastewater conveyance is provided by the 10-, 12- and 15-inch trunk sewer pipelines operated and maintained by the County Sanitation Districts of Los Angeles County.

The existing sewer system primarily consists of 8-inch pipelines conveying flows in the northwest direction to the Avenue I and Fern Avenue trunk sewer mains. Most pipelines are aligned in existing right-of-way. However, there are a few pipelines that are either located in alleyways or easements (crossing parcels). As per the County Sanitation Districts of Los Angeles County, the available capacity in the existing pipelines include:

- ◆ The 10-inch Fern Avenue Trunk Sewer with a design capacity of 1.1 million gallons per day (mgd) and was last measured (in 2006) to convey a peak flow 0.4 million gallons per day (mgd).
- ◆ The 12-inch Avenue I Trunk Sewer with a design capacity of 1.3 mgd, and was last measured (in 2006) to convey a peak flow of 0.6 mgd.

The wastewater system is operating within current capacity levels, based on the above design capacity, existing land use data, and existing average flow estimated to be 160,796 gallons per day/ peak flow of 279 gallons per minute.

#### **FUTURE WASTEWATER SYSTEM**

The future wastewater system at build-out is estimated to be an average day flow of 788,478 gallons per day and peak flow of 3.05 cfs (or 1,369 gallons per minute), which exceeds the available capacity of the existing pipelines. In addition, several pipelines not in existing right-of-way should be re-aligned to allow for planned development.

The proposed backbone wastewater system primarily conveying flow to the Fern Avenue Trunk Sewer, in anticipation of the North Downtown Specific Plan, would reduce the number of pipelines conveying flow northwest to Avenue I. In addition, a 10-inch pipeline will be constructed in Sierra Highway between Lancaster Boulevard and Avenue I. The wastewater flow contributed from the area to the south of the Specific Plan area is not known; the capacity of the proposed wastewater system should be verified before new development takes place there.

It is anticipated that the 10-inch Fern Avenue Trunk Sewer should be upsized to a 15-inch in the Specific Plan area. Up-sizing of the Avenue I Trunk Sewer may be necessary as well, because the flows from the Specific Plan area will be conveyed to it; however, since it serves a large region of the City of Lancaster, the City and the Sanitation District should coordinate to determine the necessary upsizing.

The condition of existing pipelines has not been assessed as part of the Specific Plan process and it is recommended that each maintained pipeline be video inspected, and if necessary relined or replaced.

# 4.8 DOWNTOWN HYDROLOGY AND WATER QUALITY PLAN

This section evaluates drainage, surface hydrology, and water quality in the Specific Plan area. Based on characteristics of the current drainage system, and the expected increase in impervious surface area, recommendations are offered to ensure that drainage and water quality are addressed. This section describes the water system improvements anticipated to meet the demands of the Development Plan. Refer to Appendix E, Hydrology & Water Quality Report.



### EXISTING WATERSHED, HYDROLOGY AND WATER QUALITY

The Specific Plan area drains generally to the north and west toward the intersection of Lancaster Boulevard and West 10th Street. Storm flow conveyance is generally within the existing streets and the existing 42" RCP on Lancaster Boulevard from Fig Avenue to 10th Street West. The capacity of the storm drain could not be obtained from the city. Based on field observations during a rain event, it appears that drainage facilities in Lancaster Boulevard are not adequate to convey storm flows.

Portions of the area are shown in Flood Insurance Rate Maps as being located between the 100-year and 500-year floodplain; based on this classification, there is not a flood hazard present in the area.

#### **FUTURE DRAINAGE**

The Specific Plan would consist of a combination of new uses, expansion of certain existing uses and rehabilitation of the existing residential areas, resulting in an incremental increase in the amount of impervious area. The drainage paths for the proposed condition will be similar to the existing conditions; the majority of the flows would be contained in the streets.

Based on field observations, the Lancaster Boulevard storm drain system is inadequate to capture storm flows. The hydraulics of the 42" RCP in Lancaster Boulevard requires further verification in order to determine whether the additional 2 cfs of storm flows would result in upgrades to the system. In addition, two facilities proposed in the Revised Master Plan of Drainage are proposed to be installed: the 42" RCP on Fig Avenue and 57" RCP on 10th Street. Additional facilities outside the boundaries of the Specific Plan area currently under study and proposed in the Revised Master Plan of Drainage are also necessary to convey runoff in the near-term.

### FUTURE STORM WATER QUALITY

The Specific Plan would increase impervious areas, resulting in impacts to storm water quality. The project could affect pollutant loading immediately offsite. The use of Best Management Practices (BMPs) consistent with the City of Lancaster Engineering Design Guidelines including:

- ◆ A National Pollution Discharge Elimination System (NPDES) General Permit must be obtained from California State Water Resources Control Board for a site development of 1 acre or greater in area.
- ◆ Applicants shall prepare and submit a Notice of Intent (NOI) to comply with the Construction General Permit to the California State Water Resources Control Board.
- ◆ All dischargers must prepare, retain at the Construction site, and implement a Storm Water Pollution Prevention Plan (SWPPP). This report shall conform to NPDES permit.
- ◆ Clarifiers for all non-residential projects to treat the first flush.

A Water Quality Management Plan should be created to include Non-Structural/Source Control BMPs in order to conform to the City of Lancaster Storm Water Management Plan. Appendix E includes the minimum required mitigation from the *Development Planning for Storm Water Management — A Manual for Standard Storm Water Mitigation Plan (SUSMP)* within the adjacent Los Angeles Regional Water Quality Basin. It also lists BMPs from the *California Storm Water Best Management Practice Handbook - Industrial/Commercial*.

The Water Quality Management Plan should be created to include Structural/Treatment BMPs in order to conform to the City of Lancaster Storm Water Management Plan and NPDES permit. Since no treatment BMPs are currently proposed on site, the mitigation for storm water treatment under the NPDES would

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require the construction of a combination of the following treatment BMPs to the maximum extent practicable: swales, inlet filtration, and/or water quality basins.

#### CONSTRUCTION

Construction controls are separated from the rest of the water quality management because the measures are temporary and specific to the type of construction. Construction of the proposed redevelopment has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes, fuel, and lubricants.

As part of its compliance the NPDES requirements, a Notice of Intent (NOI) would need to be prepared and submitted to the California State Water Resources Control Board providing notification and intent to comply with the State of California general permit. Prior to construction, a Storm Water Pollution Prevention Plan (SWPPP) is required for the construction activities onsite. A copy of the SWPPP must be available and implemented at the construction site at all times. The SWPPP outlines the source control and/or treatment control BMPs that would avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable."