

Compliance Inspection Checklist for Gasoline Stations

Date of Inspection	
Facility Name	
Facility Address	
Facility Contact Person	
Facility Telephone	
Inspector's Name	

GENERAL FACILITY	YES	NO	OTHER
Are leaks and drips spot cleaned routinely?			
Is a spill response plan maintained and kept current?			
Are materials and waste managed to reduce adverse impacts on storm water quality?			
Are all employees trained upon hiring, and annually thereafter on personal safety, chemical management, and proper methods for handling and disposing of waste?			
Are drains labeled within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an on-site treatment device, directly to the sanitary sewer, or to a storm drain.			
Are storm drain inlets and catch basins inspected and cleaned within the facility boundary before October 1 each year?			
FUEL DISPENSING AREAS	YES	NO	OTHER
Are fuel dispensing areas maintained using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills, and never washed down unless the wash water is collected and disposed of properly?			
Are underground storage tanks fitted with spill containment and overfill prevention systems meeting the requirements of Section 2635(b) of Title 23 of the California Code of Regulations?			
Are fuel dispensing nozzles fitted with "hold-open latches" (automatic shutoffs) except where prohibited by the local fire department?			
Are signs posted at the fuel dispenser or fuel island warning vehicle owners/operators against "topping off" of vehicle fuel tanks?			

OUTDOOR WASTE RECEPTACLE AREA	YES	NO	OTHER
Are leaks and drips spot cleaned routinely?			
OUTDOOR WASTE RECEPTACLE AREA (CONT'D)	YES	NO	OTHER
Is storm water pollution from outside waste receptacles minimized by doing at least one of the following?			
Use of only watertight waste receptacle(s) and keep the lid(s) closed			
Grading and paving the waste receptacle area to prevent run-on of storm water			
Installing a roof over the waste receptacle area			
Installing a low containment berm around the waste receptacle area			
Using and maintaining drip pans under waste receptacles			
AIR/WATER SUPPLY AREA	YES	NO	OTHER
Is storm water pollution from air/water supply areas minimized by doing at least one of the following:			
Spot cleaning leaks and drips routinely to prevent runoff of spillage			
Grading and paving the air/water supply area to prevent run-on of storm water			
Installing a roof over the air/water supply area			
Installing a low containment berm around the air/water supply area.			
ACTIONS TAKEN FOLLOWING INSPECTION	YES	NO	COMMENTS
Responsible party requested to correct any deficiencies noted above? (Include date notice was sent)			
Site reinspected following corrective action by responsible party? (Include date of reinspection)			
Deficiencies found to be corrected during reinspection?			
Further action taken or necessary following reinspection? (Describe)			

Compliance Inspection Checklist for Food Service Facilities

Date of Inspection	
Facility Name	
Facility Address	
Facility Contact Person	
Facility Telephone	
Inspector's Name	

HOUSEKEEPING	YES	NO	OTHER
<i>Equipment Cleaning</i>			
<u>Indoor Cleaning:</u> Is equipment cleaned in a designated area, such as a mop sink, pot sink, or floor area with a drain connected to the sanitary sewer?			
<u>Outdoor Cleaning:</u> Is equipment cleaned in a designated covered, bermed area with a drain connected to the sanitary sewer?			
Is equipment cleaned outdoors in any area where water may flow to a street, gutter, storm drain, or creek?			
Are floor mats used that are small enough to be cleaned inside in a mop sink or near a floor drain?			
Are floor mats that are too big to clean indoors, taken to a self-service car wash to clean?			
<i>Grease Handling and Disposal</i>			
Is oil, grease, sauce, salad dressings, or waste grease prevented from being poured down a storm drain, or into a dumpster?			
Is waste grease from grease interceptors and traps being properly disposed of by a responsible disposal firm (such as one listed under "Grease Traps" and "Septic tanks" in the yellow pages)?			
SPILL CLEANUP AND SURFACE CLEANING	YES	NO	OTHER
<i>Spill Prevention</i>			
Is the Spill Response Plan maintained and kept current?			
Is the distance between waste collection points and storage areas minimized?			
Are all solid and liquid wastes contained and covered?			
Are absorbent materials and other spill response equipment maintained in accordance with local			

regulations and procedures for containment and cleanup of different spills, and are they easily accessible from anywhere in the shop?			
Are leaks and drips spot cleaned routinely?			
SPILL CLEANUP AND SURFACE CLEANING (CONT'D)	YES	NO	OTHER
Are floor drains connected to or discharge to the sanitary sewer system, and <u>not</u> to the storm drain system?			
<i>Spill Cleanup</i>			
Are spills stopped at the source?			
Is wash water from spill cleanup prevented from flowing to a gutter or a storm drain?			
Are granular absorbents (e.g. cat litter) used to absorb spills?			
EDUCATION AND TRAINING	YES	NO	OTHER
Are all employees trained upon hiring, and annually thereafter on personal safety, chemical management, and proper methods for handling and disposing of waste?			
Are instructional/informational signs regarding storm water pollution posted around the shop for customers and employees?			
Are signs placed on faucets (hose bibbs) reminding employees and customers to conserve water and not to use water to clean up spills?			
Are drains labeled within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an on-site treatment device, directly to the sanitary sewer, or to a storm drain?			
DUMPSTER AND LOADING DOCK AREAS	YES	NO	OTHER
Are dumpster lids kept closed to keep out the rainwater?			
Are dumpsters or the dumpster enclosures kept locked to prevent illegal dumping?			
Is liquid waste or leaky garbage bags placed in the dumpster?			
Are leaking dumpsters and compactors, and dumpsters that need to be cleaned out serviced by the dumpster leasing company?			
Are spill cleanup materials handy near the dumpster and loading dock areas?			

COOLING AND REFRIGERATION EQUIPMENT MAINTENANCE	YES	NO	OTHER
Are all discharges from cooling and refrigeration equipment going to the sanitary sewer and not to the street, storm drain, or creek?			

ACTIONS TAKEN FOLLOWING INSPECTION	YES	NO	COMMENTS
Responsible party requested to correct any deficiencies noted above? (Include date notice was sent)			
Site reinspected following corrective action by responsible party? (Include date of reinspection)			
Deficiencies found to be corrected during reinspection?			
Further action taken or necessary following reinspection? (Describe)			

Compliance Inspection Checklist for Vehicle Service Facilities

Facility Name	
Facility Address	
Facility Contact Person	
Facility Telephone	
Inspector's Name	
Date of Inspection	

HOUSEKEEPING	YES	NO	OTHER
Are drip pans used under leaking vehicles to capture fluids?			
Are shop floors and other paved surfaces regularly swept, vacuumed, or mopped rather than hosed down?			
Are all unnecessary hoses removed to discourage washing down floors and outside paved areas?			
Are all metal filings, dust, and paint chips collected from grinding, shaving, and sanding disposed of properly?			
Is all dust from other activities (e.g. brake pad dust) collected and disposed of in compliance with local requirements?			
Are cleaning rags recycled through an industrial laundry?			
Are storm drain inlets, catch basins, and any storm water treatment systems within the facility boundary inspected and cleaned before October 1 each year?			
Are storm water treatment facilities within the facility boundary being properly maintained?			
Are storm drains labeled with "No Dumping – Discharges to Ocean"?			
Are vehicles that are received to be parted or scavenged parked on a paved surface and immediately drained of gasoline and other fluids, and are these fluids properly disposed of?			
Are drip pans in place to catch leaking fluids?			
Are all fluids drained from components, such as engine blocks, which are stored for reuse or reclamation?			
Are these components kept under cover and on a drop pan or sealed floor?			
STORAGE	YES	NO	OTHER
Are hazardous materials and wastes, including waste containers of antifreeze and oil, stored in secondary containment where they are protected from rain and in a			

way that prevents spills from reaching the sanitary sewer or storm drain?			
Are lids kept on waste barrels and containers, and stored indoors or under cover to reduce exposure to rain?			
STORAGE (CONT'D)	YES	NO	OTHER
Are all hazardous wastes labeled according to hazardous waste regulations?			
Are wastes kept separate to increase waste recycling/disposal options and to reduce costs?			
Is waste oil prevented from being mixed with fuel, antifreeze, or chlorinated solvents?			
Are all bulk fluids and wastes double contained to prevent accidental discharges to the sewer and storm drain?			
Are all storage areas kept clean and dry, so that leaks and spills are detected as soon as possible?			
Are new and old batteries stored securely to avoid breakage and acid spills during earthquakes?			
Are all of the shelves secured to the wall?			
Are all used batteries stored indoors and in plastic trays to contain potential leaks?			
Are all old batteries recycled?			
SPILL CONTROL	YES	NO	OTHER
<i>(Note: The Best Spill Control is Prevention)</i>			
Is the spill response plan maintained and kept current, and are all employees trained on the elements of the plan?			
Is the distance between waste collection points and storage areas minimized?			
Are all solid and liquid wastes contained and covered, especially during transfer?			
Are absorbent materials purchased and maintained in accordance with local regulations and procedures for containment and cleanup of different spills?			
Are they easily accessible from anywhere in the shop?			
Are the leaks and drips spot cleaned routinely?			
Are the floor drains checked to ensure that they are not connected to or discharge to the storm drain system?			
OUTDOOR WASTE RECEPTACLE AREAS	YES	NO	OTHER
Are leaks and drips cleaned routinely to prevent runoff of spillage?			
Is the possibility of pollution from outside waste receptacles minimized by doing at least one of the			

following:			
Using only watertight waste receptacle(s) and keeping the lid(s) closed, or			

OUTDOOR WASTE RECEPTACLE AREAS (CONT'D)	YES	NO	OTHER
Grading and paving the waste receptacle area to prevent run-on of storm water, and installing a low containment berm around the waste receptacle area or installing a roof over the waste receptacle area			

EDUCATION AND TRAINING	YES	NO	OTHER
Are all employees trained upon hiring, and annually thereafter on personal safety, chemical management, and proper methods for handling and disposing of waste?			
Do all employees understand storm water discharge prohibitions, wastewater discharge requirements, and these best management practices?			
Are training logs or similar methods used to document training?			
Are instructional/informational signs posted around the shop for customers and employees?			
Are signs placed above all sinks prohibiting discharges of vehicle fluids and wastes?			
Are signs placed on faucets (hose bibbs) reminding employees and customers to conserve water and not to use water to clean up spills?			
Are drains labeled within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an on-site treatment device, directly to the sanitary sewer, or to a storm drain.			
Are emergency telephone numbers of the wastewater treatment plant and the fire department posted?			

CHANGING OIL AND OTHER FLUIDS	YES	NO	OTHER
Are vehicle fluids changed, whenever possible, indoors and only on floors constructed of non-porous materials?			
Are drip pans used if vehicle fluids must be removed outdoors?			
Are spills prevented from reaching the street or storm drain by working over an absorbent mat and covering nearby storm drains, or working in a bermed area? (Note: If necessary, absorbent socks can be used to create a bermed area)			
When draining fluids into a drain pan, is a larger drip			

pan (e.g., 3' x 4') placed under the primary drain pan to catch any spilled fluids?			
Are fluids drained from vehicles transferred to a designated waste storage area as soon as possible?			
CHANGING OIL AND OTHER FLUIDS (CONT'D)	YES	NO	OTHER
Are drain pans and other open containers of fluids covered and within secondary containment unless they are attended by personnel?			
Is antifreeze and waste oil stored separately and recycled, or disposed of as hazardous waste?			
Never pour vehicle fluids or other hazardous wastes into sinks, toilets, floor drains, outside storm drains, or in the garbage. These substances should be kept in designated storage areas until recycled or safely disposed of (see Rationale 4 at the end of section).			
Drain fluids from leaking or wrecked vehicles as soon as possible, to avoid leaks and spills.			
CLEANING ENGINES AND PARTS, AND FLUSHING RADIATORS	YES	NO	OTHER
Are discharges from engine cleaning and flushing of radiators prevented from being discharged to the sanitary sewer and storm drains? (<u>Note</u> : A licensed service should be used to haul and recycle or dispose of wastes)			
Is steam cleaning of engines done using a closed-loop water recycling system? (<u>Note</u> : No steam cleaning water may be discharged to the sanitary sewer or the storm drain)			
Are specific areas or service bays designated for engine, parts, or radiator cleaning? (<u>Note</u> : Parts should not be washed or rinsed outdoors)			
Are self-contained sinks and tanks used when working with solvents, and are sinks and tanks kept covered when not in use?			
Are degreasing solvent sinks inspected regularly for leaks, and are necessary repairs made immediately?			
Is soldering avoided over drip tanks, and are drippings swept up and recycled or disposed of as hazardous waste?			
Are parts rinsed and drained over the solvent sink or tank, so that solvents will not drip or spill onto the floor, and are drip boards or pans used to catch excess solvent solutions and divert them back to a sink or tank?			

Are parts allowed to dry over the hot tank, and if rinsing is required, is it performed over the tank as well?			
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CLEANING ENGINES AND PARTS, AND FLUSHING RADIATORS (CONT'D)	YES	NO	OTHER
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Are parts cleaning solvent solutions and water used in flushing and testing radiators collected and reused, and when reuse is no longer possible, are these solutions disposed of properly?			
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Are cleaning solutions used for engines or parts prevented from being discharged into the sanitary sewer system without adequate treatment? (<u>Note</u> : Most facilities have these solutions hauled off-site as hazardous waste because of the permits necessary for on-site treatment. Rinse water may only be discharged to the sanitary sewer after adequate treatment and approval by the local wastewater authority. Wastewater from steam cleaning or engine/parts cleaning should never be discharged to a street, gutter, storm drain, or sanitary sewer)			
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WASHING CARS AND OTHER VEHICLES	YES	NO	OTHER
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<i>Regular Activity</i>			
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If car washing is a central activity of the business, is the wash water treated and recycled?			
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Is a vehicle washing area designated, and are cars and trucks washed only in that area?			
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Is the “wash pad” bermed to prevent discharges to storm drains and does it discharge to the sanitary sewer after adequate treatment and approval of the local wastewater authority? (<u>Note</u> : An outside wash pad should be covered, or its area minimized to reduce the amount of rainwater reaching the sanitary sewer. Consult the local wastewater authority for guidance)			
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Are acid-based wheel cleaners and other specialized cleaners prohibited, or if not, are they provided proper treatment before discharge to the sewer? (<u>Note</u> : Consult the local wastewater authority for guidance)			
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<i>Occasional Activity</i>			
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If soap is used in washing, is the wash water collected and discharged, preferably with treatment, to the sanitary sewer, and not discharged to a storm drain?			
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WASHING CARS AND OTHER VEHICLES (CONT'D)	YES	NO	OTHER
Is rinse water from spray-on acid-based wheel cleaners prevented from flowing to a street, gutter, or storm drain?			
<i>Washing New Vehicles</i>			
Are storm drains protected from solvents used to remove protective coatings from new cars? (<u>Note</u> : Discharges of these solvents to the sanitary sewer must receive adequate treatment and approval of the local wastewater authority)			
BODY REPAIR AND PAINTING	YES	NO	OTHER
Whenever possible is body repair and painting work conducted indoors or under cover?			
Are damaged vehicles inspected for leaks when they are received, and are drip pans used if necessary?			
Are hose-off degreasers prohibited from use when cleaning auto body parts before painting? (<u>Note</u> : These should not be used, instead brush off loose debris and use rags to wipe down parts)			
Are dry cleanup methods such as vacuuming or sweeping used to clean up dust from sanding metal or body filler? (<u>Notes</u> : Debris from wet sanding can be allowed to dry overnight on the shop floor, then swept and vacuumed. Liquid from wet sanding should not be discharged to the storm drain)			
Is the use of water to control overspray or dust in the paint booth prohibited unless it is collected and treated before discharge into the sanitary sewer system?			
Are spray guns cleaned in a self-contained cleaner and is the cleaning solution recycled when it becomes too dirty to use? (<u>Note</u> : Never discharge cleaning waste to the sanitary sewer or storm drain?)			
FUEL DISPENSING	YES	NO	OTHER
Are fuel dispensing areas maintained using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills? (<u>Note</u> : Fueling areas should never be washed down unless dry cleanup has been done and the wash water is collected and disposed of in the sanitary sewer system)			

FUEL DISPENSING (CONT'D)	YES	NO	OTHER
Are underground storage tanks fitted with spill containment and overfill prevention systems meeting the requirements of Section 2635(b) of Title 23 of the California Code of Regulations?			
Except where prohibited by local fire departments are fuel dispensing nozzles fitted with "hold-open latches" (automatic shutoffs)?			
Are signs posted at the fuel dispenser or fuel island warning vehicle owners/ operators against "topping off" of vehicle fuel tanks?			
ACTIONS TAKEN FOLLOWING INSPECTION	YES	NO	COMMENTS
Responsible party requested to correct any deficiencies noted above? (Include date notice was sent)			
Site reinspected following corrective action by responsible party? (Include date of reinspection)			
Deficiencies found to be corrected during reinspection?			
Further action taken or necessary following reinspection? (Describe)			

PROTOCOL FOR TAKING ACTION AGAINST VIOLATORS OF THE MUNICIPALITY’S URBAN STORM WATER QUALITY MANAGEMENT AND DISCHARGE CONTROL ORDINANCE

The municipality will follow the enforcement provisions of the ordinance it adopts, similar to those set forth in Division V “Enforcement” of the Model Ordinance contained in this Appendix E. The municipality will determine what enforcement action is necessary and appropriate for each violation on a case-by-case basis, taking into consideration such things as prior history of violations and severity of pollution impact. The municipality will follow the phased approach to enforcement described below, including issuance of a warning or administrative action or legal action. The municipality will have the authority to initiate any enforcement action deemed appropriate for the violation. The municipality may modify the approach described below to avoid conflicts with other existing policies and requirements.

It is the municipality’s intention and expectation that fines or other penalties will be levied for first time violators, at the discretion of the municipality, and that as the norm the cost of clean up will be levied against the violator. It is also the municipality’s intention that for ongoing or flagrant violators, fines will be mandatory

- 🔊 **Warning.** For first time, minor violations a warning will be given in either written or verbal form, with the intent of achieving voluntary compliance. A time frame to correct the identified problem will be specified based on the severity or complexity of the problem. First time warnings will generally be issued by field staff.
- 🔊 **Administrative Action.** Similar to a warning except a more formal notice and a structured process. The notice will be in the form of a written Notice of Violation Ordering Compliance, Cease and Desist Order, Order to Abate, Notice to Clean, or any other similar notification outlined in the municipality’s storm water ordinance that identifies a problem, requires correction or abatement but does not assess fines. A time frame to correct the identified problem will be specified based on the severity or complexity of the problem. The notice will clearly describe the required remedial measures to be taken, establish a time schedule for accomplishing these, a description of the penalties that will be assessed if the notice is not complied with, and the timeframe for appeal of the notice.
- 🔊 **Administrative Action with Fine, Cost Recovery, and/or Compensatory Action.** Same as above with the addition that fine(s) may be assessed administratively and/or the municipality’s abatement costs are recovered. At the municipality’s discretion in lieu of enforcement proceedings or penalties, alternative compensatory action, eg, storm drain stenciling, etc. may be imposed.
- 🔊 **Legal Action.** Includes any actions taken by the municipality that brings the facility into the court system (e.g., citation, court action, etc.) This enforcement protocol is based on the assumption that the municipality escalates the level of enforcement until compliance is achieved. An objective of the legal action will often include asking the court to impose daily financial penalties for each day the violation remains uncorrected. For intentional and flagrant violations the municipality may pursue criminal prosecution, under which each day of violation may constitute a separate offense, and can result in fines and imprisonment. As part of the legal action the municipality may also seek to recover its costs of abatement of the violation when the

municipality remedies the violation or conducts cleanup, as well as its associated administrative costs. If awarded, the judgment may constitute a property lien if not paid within a prescribed timeframe. The municipality's department responsible for management of its storm water program will consult with the municipality's legal counsel in connection with pursuing legal action.

GUIDANCE DOCUMENT
FOR POLICIES AND PROCEDURES
PERTAINING TO
ILLICIT CONNECTIONS AND ILLEGAL DISCHARGES
TO STORM WATER SYSTEMS

BACKGROUND

An *illicit connection* is a connection to the storm water system which discharges flows that are not composed entirely of storm water, or which are not authorized by the Storm Water NPDES permit issued by the Regional Water Quality Control Board. The NPDES permit allows a limited number of non-stormwater discharges to be made. These consist of essentially unpolluted waters of the following types:

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground waters
5. Uncontaminated ground water infiltration
6. Uncontaminated pumped ground water
7. Discharges from potable water sources
8. Foundation drains
9. Air conditioning condensation
10. Irrigation water
11. Springs
12. Water from crawl space pumps
13. Footing drains
14. Lawn watering
15. Individual residential car washing
16. Flows from riparian habitats and wetlands
17. Dechlorinated swimming pool discharges
18. Flows from fire fighting activities

Any discharge of water of non-storm water origin, except as listed above, is an *illegal discharge*. Illegal discharges can occur in several ways, including:

- 🔊 Discharges from an illicit connection
- 🔊 Direct dumping of polluted water into the storm water system, such as dumping into a catch basin or storm water inlet
- 🔊 Discharges of polluted water into a creek or into a street gutter which flows into the storm water system or into a receiving water

Typical types of illegal discharges from industrial and/or commercial activities include the following:

1. Water from the cleaning of gas stations, vehicle service garages, or other types of vehicle service facilities.
2. Water, cleansers, or solvents from the cleaning of vehicles, machinery or equipment, and other such commercial and industrial operations.

3. Water from the washing or rinsing of vehicles containing soap, detergents, solvents, or other cleaners.
4. Water from the washing or rinsing of vehicles, with or without soap, from auto body repair shops.
5. Water from the cleaning or rinsing of vehicle engine, undercarriage, or auto parts cleaning.
6. Vehicle fluids.
7. Mat wash and hood cleaning water from food service facilities.
8. Food and kitchen cleaning water from food service facilities.
9. Leakage from dumpsters or trash containers.
10. Water from the cleaning or rinsing of garbage dumpster areas and areas where garbage is stored or contained.
11. Water from pressure washing, steam cleaning, and hand scrubbing of sidewalks, gutters, plazas, alleyways, outdoor eating areas, steps, building exteriors, walls, driveways, and other outdoor surfaces.
12. Wastewater or cleaning fluids from carpet cleaning.
13. Swimming pool and spa water;
14. Washout from concrete trucks;
15. Runoff from areas where hazardous substances, including diesel fuel, gasoline and motor oil are stored
16. Super-chlorinated water normally associated with the disinfection of potable water systems.
17. The discharge of sewage or other forms of polluted water from recreational activities including boating and camping, and from recreational vehicles and boats.

Inspections of urban storm water systems in many areas have shown that it is common to find industrial and commercial establishments (such as auto shops, gas stations, and restaurants) with illegal discharges. Illegal discharges can pose a danger to public health. While some pollutants are knowingly dumped into storm drain inlets and streams, a multitude of contaminants are inadvertently carried by runoff into storm drain systems — during accidental spills on urban streets, sidewalks, and other exposed areas; for example, pollutants are carried to the storm drains by water used to clean up the spill. Materials disposed of improperly include used oil, household toxic wastes, radiator fluid, washdown water from restaurants and gas stations, and litter such as fast food packaging, cans, and disposable cups.

POLICY

It is the policy of the municipality to control illegal discharges by:

- 🔊 Investigating all reports and observations of improper disposal of materials to the storm water system, and by taking appropriate followup actions to eliminate illegal discharges which are identified through these investigations, and
- 🔊 By inspecting the following types of businesses that experience in urban storm water systems in many areas have shown to be the most common sources of illegal discharges:
 1. Auto repair shops
 2. Gas stations
 3. Restaurants/food services facilities

Persons that will be investigating reports of illegal discharges and illicit connections, and persons that will be inspecting the categories of businesses listed above, will be trained in the methods and procedures for performing such work.

PROCEDURES

Reports and observations of illegal discharges, illicit connections, and other types of improper discharges to the storm water system may be in the form of reports received from the general public and by observations made by members of the municipality's staff.

Each such report or observation will be logged and investigated, and appropriate followup actions will be taken. Documentation will be kept on the response and the outcome of the reported incident using the attached "Illegal Discharge/Illicit Connection Reporting and Response" form.

The following steps will be followed when investigating a reported or observed incident of illegal discharge.

Step 1- Determine Whether or not the Reported Incident is Valid: Using information provided by the reporting party, inspect the location of the reported incident to check for signs of improper discharges. Signs of illicit connections or illegal discharges can include:

- Abnormal water flows during the dry season
- Unusual flows in subdrains used for dewatering
- Pungent odors
- Discoloration or oily substances in the water, or stains and waste residue in ditches, channels, or drain boxes

If during inspections, any of these signs are observed, the inspector should (1) record the flow data and take photographs and (2) begin storm drain investigations by tracing the flow upstream using storm drain maps and by inspecting upgradient manholes. Sampling and testing of water at the manhole or outfall where it is first detected is generally not considered necessary, if the water appears to be "clear" but, if deemed appropriate, can be performed using field kits or taking grab samples for analysis in a lab. In addition to visual inspections the following may be implemented:

- Using the inspection check lists in Appendix E of the MRSWMP, inspect premises to see if signs of illicit discharges exist (such as looking for stains, smelling odors, seeing improperly stored hazardous materials products or wastes).
- Dye testing of building sewer drains with downstream inspection of storm drains to determine if illicit connections exist.
- CCTV inspection of storm drains to discover signs of sewage.
- Smoke testing of storm drains to see if signs of cross connections exist (such as smoke coming from sewer vents).
- Visual inspection of buildings to discover apparent sources of sewage.

If the investigation reveals no indication that an illegal discharge occurred, and/or that no illicit connection exists, attach the results of the field investigation to the Illegal Discharge/Illicit Connection Reporting and Response form, and close the action.

Step 2-If it is Determined that an Illegal Discharge has Occurred and/or that an Illicit Connection Exists: Once the origin of flow is established, require illegal discharger to eliminate the discharge. Once the suspected origin of the flow is determined, the inspector should inspect the source to see if it is a case of improper dumping or if it is an improper physical connection (illicit connection). Once confirmed, the inspector will instruct the owner/operator of the property to rectify the situation. The inspector will provide the operator/owner information on alternative disposal options as shown in the attached table titled "Preferred Disposal Options for Non-stormwater Discharges". The operator/owner

will also be informed at this time that if the discharge continues enforcement procedures will be implemented.

If the illegal discharge was a one time incident, and if the discharger has taken appropriate action to prevent a recurrence, attach the results of the field investigation to the Illegal Discharge/Illicit Connection Reporting and Response form, and close the action.

If the illegal discharge or illicit connection appears to be an ongoing activity, require the discharger to apply BMPs and/or to make mechanical and/or structural modifications to prevent a recurrence of the incident. Once this has been done, as verified by the inspector, attach the results of the field investigation to the Illegal Discharge/Illicit Connection Reporting and Response form, and close the action.

Model Ordinance

The model ordinance contained in this appendix is intended to be used as a template for the Participating Entities. It may be modified as necessary by each entity as necessary to avoid conflicts with other existing ordinances and regulations that the Participating Entities may have, as well as to adapt to the specific characteristics of each of the Participating Entities.

The modification and adoption of any ordinance will be subject to the Participating Entities' existing procedures and as defined in government codes

Urban Storm Water Quality Management and Discharge Control Ordinance

Division I.

<u>Section</u>	<u>Title, Purpose and General Provisions</u>
1	Title.
2	Purpose and Intent.
3	Definitions.
4	Applicability.
5	Responsibility for Administration.
6	Severability.
7	Regulatory Consistency.
8	Ultimate Responsibility of Discharger.

Division II.

<u>Section</u>	<u>Discharge Prohibitions</u>
9	Prohibition of Illegal Discharges.
10	Prohibition of illicit connections.
11	Waste Disposal Prohibitions.
12	Discharges in Violation of Industrial or Construction Activity NPDES Storm Water Discharge Permit.

Division III.

<u>Section</u>	<u>Regulations and Requirements</u>
13	Requirement to Prevent, Control and Reduce Storm Water Pollutants.
14	Requirement to Eliminate Illegal Discharges.
15	Requirement to Eliminate or Secure Approval for Illicit Connections.
16	Watercourse Protection.
17	Requirement to Remediate.
18	Requirement to Monitor and Analyze.
19	Notification of Spills.

Division IV.

<u>Section</u>	<u>Inspection and Monitoring</u>
20	Authority to Inspect.
21	Authority to Sample, Establish Sampling Devices, and Test.

Division V.

<u>Section</u>	<u>Enforcement</u>
22	<u>Intervention.</u>
23	<u>Notice of Violation.</u>
24	<u>Stop Work Order.</u>
25	<u>Citation for Violation.</u>
26	<u>Administrative Compliance Order.</u>
27	<u>Notice of Imposition of Administrative Ordinance.</u>
28	<u>Service.</u>
29	<u>Settlement of Administrative Civil Penalty Assessment.</u>
30	<u>Appeal.</u>
31	<u>Abatement by City.</u>
32	<u>Charging Cost of Abatement/Liens.</u>
33	<u>Urgency Abatement.</u>
34	<u>Violations.</u>
35	<u>Compensatory Action.</u>
36	<u>Violations Deemed a Public Nuisance</u>
37	<u>Acts Potentially Resulting in a Violation of the Federal Clean Water Act and/or</u> <u>California Porter-Cologne Act.</u>

URBAN STORM WATER QUALITY MANAGEMENT AND DISCHARGE CONTROL.

Division I.

Title, Purpose and General Provisions.

Section 1. Title.

This Article shall be known as the "Urban Storm Water Quality Management and Discharge Control Ordinance" of the City of _____ and may be so cited.

Section 2. Purpose and Intent.

The purpose and intent of this Article is to ensure the health, safety, and general welfare of citizens, and protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. §1251 et seq.) by reducing pollutants in storm water discharges to the maximum extent practicable and by prohibiting non-storm water discharges to the storm drain system.

Section 3. Definitions.

The terms used in this Article shall have the following meanings:

(a) Best Management Practices. Activities, practices, and procedures to prevent or reduce the discharge of pollutants directly or indirectly to the municipal storm drain system and waters of the United States. Best Management Practices include but are not limited to: treatment facilities to remove pollutants from storm water; operating and maintenance procedures; facility management practices to control runoff, spillage or leaks of non-storm water, waste disposal, and drainage from materials storage; erosion and sediment control practices; and the prohibition of specific activities, practices, and procedures and such other provisions as the City determines appropriate for the control of pollutants. Please refer to the City's *BMP Guidance Series*, as discussed further in Section 13(c) herein, for specific requirements.

(b) City. The City of _____.

(c) Clean Water Act. The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

(d) Construction Activity. Construction projects subject to NPDES Construction Permits. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

(e) Hazardous Materials. Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise

managed (California Health and Safety Code §25117).

(f) Illegal Discharge. Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in Division II, Section 9 of this chapter.

(g) Illicit Connections. An illicit connection is defined as either of the following:

1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency; or

2. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the City.

(h) Industrial Activity. Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

(i) National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permits. General, group, and individual storm water discharge permits which regulate facilities defined in federal NPDES regulations pursuant to the Clean Water Act. The California Regional Water Quality Control Board, Central Coast Region (hereinafter, Regional Board) and the State Water Resources Control Board have adopted general storm water discharge permits, including but not limited to the General Construction Activity and General Industrial Activity permits.

(j) Non-Storm Water Discharge. Any discharge to the storm drain system that is not composed entirely of storm water.

(k) Pollutant. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure (including but not limited to sediments, slurries, and concrete rinsates); and noxious or offensive matter of any kind.

(l) Pollution. The human-made or human-induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses (California Water Code §13050).

(m) Porter-Cologne Act. The Porter-Cologne Water Quality Control Act and as amended (California Water Code §13000 et seq.).

(n) Premises. Any building, lot, parcel of land, or portion of land whether improved or

unimproved including adjacent sidewalks and parking strips.

(o) Storm Drain System. Publicly-owned facilities operated by the City by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures which are within the City and are not part of a publicly owned treatment works as defined at 40 CFR Section 122.2.

(p) Storm Water. Any surface flow, runoff, and drainage consisting entirely of water from rain storm events.

(q) Waters of the United States. Surface watercourses and water bodies as defined at 40 CFR § 122.2. including all natural waterways and definite channels and depressions in the earth that may carry water, even though such waterways may only carry water during rains and storms and may not carry storm water at and during all times and seasons.

Section 4. Applicability.

This Article shall apply to all water entering the storm drain system generated on any developed and undeveloped lands lying within the City including any amendments or revisions thereto.

Section 5. Responsibility for Administration.

The Public Works Director of the City shall administer, implement, and enforce the provisions of this Article. Any powers granted or duties imposed upon the Public Works Director may be delegated in writing by the Public Works Director to persons or entities acting in the beneficial interest of or in the employ of the City.

Section 6. Severability.

The provisions of this Article are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Article.

Section 7. Regulatory Consistency.

This Article shall be construed to assure consistency with the requirements of the Clean Water Act and Porter-Cologne Act and acts amendatory thereof or supplementary thereto, or any applicable implementing regulations.

Section 8. Ultimate Responsibility of Discharger.

The standards set forth herein and promulgated pursuant to this Article are minimum standards; therefore this Article does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants into waters of the U.S. caused by said person. This Article shall not create liability on the part of the City, or any agent or employee

thereof for any damages that result from any discharger's reliance on this Article or any administrative decision lawfully made thereunder. All persons conducting construction activities shall employ, to the maximum extent practicable, erosion prevention and construction site management practices that result in the following outcome: no discharges that cause or contribute to an exceedence of the water quality standards contained in a Statewide water Quality Control Plan, the California Toxics Rule or the Central Coast Regional Water Quality Control Board Basin Plan.

Division II.

Discharge Prohibitions.

Section 9. Prohibition of Illegal Discharges.

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

Illegal discharges from industrial and/or commercial activities include, but are not limited to, the following, and are prohibited, unless the discharge is permitted under a separate NPDES permit or as allowed by BMPs published or approved by the City Public Works Department.

- a. Water from the cleaning of gas stations, vehicle service garages, or other types of vehicle service facilities.
- b. Water, cleansers, or solvents from the cleaning of vehicles, machinery or equipment, and other such commercial and industrial operations.
- c. Water from the washing or rinsing of vehicles containing soap, detergents, solvents, or other cleaners.
- d. Water from the washing or rinsing of vehicles, with or without soap, from auto body repair shops.
- e. Water from the cleaning or rinsing of vehicle engine, undercarriage, or auto parts cleaning.
- f. Vehicle fluids.
- g. Mat wash and hood cleaning water from food service facilities.
- h. Food and kitchen cleaning water from food service facilities.
- i. Leakage from dumpsters or trash containers.
- j. Water from the cleaning or rinsing of garbage dumpster areas and areas where garbage is stored or contained.
- k. Water from pressure washing, steam cleaning, and hand scrubbing of sidewalks, gutters, plazas, alleyways, outdoor eating areas, steps, building exteriors, walls, driveways, and other outdoor surfaces.
- l. Wastewater or cleaning fluids from carpet cleaning.
- m. Swimming pool and spa water;
- n. Wash out from concrete trucks;

- o. Runoff from areas where hazardous substances, including diesel fuel, gasoline and motor oil are stored, except as allowed by Chapter 6.50 of this code.
- p. Super-chlorinated water normally associated with the disinfection of potable water systems.

The discharge of sewage or other forms of polluted water from recreational activities including boating and camping, and from recreational vehicles and boats, to the municipal storm drain system or watercourses is prohibited.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

- (a) Discharges from the following activities will not be considered a source of pollutants to the storm drain system and to waters of the U.S. when properly managed to ensure that no potential pollutants are present, and therefore they shall not be considered illegal discharges unless determined to cause a violation of the provisions of the Porter-Cologne Act, Clean Water Act, or this ordinance:
 - 1. Water line flushing;
 - 2. Landscape irrigation;
 - 3. Diverted stream flows;
 - 4. Rising ground waters;
 - 5. Uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)) to separate storm sewers;
 - 6. Uncontaminated pumped ground water;
 - 7. Discharges from potable water sources;
 - 8. Foundation drains;
 - 9. Air conditioning condensation;
 - 10. Irrigation water;
 - 11. Springs;
 - 12. Water from crawl space pumps;
 - 13. Footing drains;
 - 14. Lawn watering;
 - 15. Individual residential car washing;
 - 16. Flows from riparian habitats and wetlands
 - 17. Dechlorinated swimming pool discharges
 - 18. Flows from fire fighting activities

(b) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered by the State of California under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted by the City for any discharge to the storm drain system.

(c) With written concurrence of the Regional Board, the City may exempt in writing other non-storm water discharges which are not a source of pollutants to the storm drain system nor waters of the U.S.

Section 10. Prohibition of Illicit Connections.

(a) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.

(b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

Section 11. Waste Disposal Prohibitions.

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the storm drain system, or water of the U.S., any refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

Section 12. Discharges in Violation of Industrial or Construction Activity NPDES Storm Water Discharge Permit.

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Public Works Director prior to or as a condition of a subdivision map, site plan, building permit, or development or improvement plan; upon inspection of the facility; during any enforcement proceeding or action; or for any other reasonable cause.

Division III.

Regulations and Requirements.

Section 13. Requirement to Prevent, Control, and Reduce Storm Water Pollutants.

(a) Authorization to Adopt and Impose Best Management Practices. The City will adopt requirements identifying Best Management Practices for activities, operations, or facilities which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. as a separate *BMP Guidance Series*. Where Best Management Practices requirements are promulgated by the City or any federal, State of California, or regional agency for any activity, operation, or facility which would otherwise cause the discharge of pollutants to the storm drain system or water of the U.S., every person undertaking such activity or operation, or owning or operating such facility shall comply with such requirements.

The Public Works Director will periodically report to the City Council on the status of implementation of BMPs and any new BMPs to be developed for inclusion in the *BMP Guidance Series*.

(b) Responsibility to Implement Best Management Practices. Notwithstanding the presence or absence of requirements promulgated pursuant to subsection of this Section, any person engaged in activities or operations, or owning facilities or property which will or may result in pollutants entering storm water, the storm drain system, or waters of the U.S. shall implement Best Management Practices

to the extent they are technologically achievable to prevent and reduce such pollutants. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses. Facilities to prevent accidental discharge of prohibited materials or other wastes shall be provided and maintained at the owner or operator's expense.

(c) Construction Sites. The City's *BMP Guidance Series* will include appropriate Best Management Practices to reduce pollutants in any storm water runoff from construction activities. The City shall incorporate such requirements in any land use entitlement and construction or building-related permit to be issued relative to such development or redevelopment. The owner and developer shall comply with the terms, provisions, and conditions of such land use entitlements and building permits as required in this Article and the City Storm Water Utility Ordinance.

Construction activities subject to these requirements will also be required to continuously employ measures to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

(d) New Development and Redevelopment. The City's *BMP Guidance Series* will include appropriate Best Management Practices to control the volume, rate, and potential pollutant load of storm water runoff from new development and redevelopment projects as may be appropriate to minimize the generation, transport and discharge of pollutants. The City shall incorporate such requirements in any land use entitlement and construction or building-related permit to be issued relative to such development or redevelopment. The owner and developer shall comply with the terms, provisions, and conditions of such land use entitlements and building permits as required in this Article

These requirements may include a combination of structural and non-structural BMPs, and may include requirements to ensure the proper long-term operation and maintenance of these BMPs.

Section 14. Requirement to Eliminate Illegal Discharges.

Notwithstanding the requirements of Division IV, Section 20 herein, the Public Works Director may require by written notice that a person responsible for an illegal discharge immediately, or by a specified date, discontinue the discharge and, if necessary, take measures to eliminate the source of the discharge to prevent the occurrence of future illegal discharges.

Section 15. Requirement to Eliminate or Secure Approval for Illicit Connections.

(a) The Public Works Director may require by written notice that a person responsible for an illicit connection to the storm drain system comply with the requirements of this Article to eliminate or secure approval for the connection by a specified date, regardless of whether or not the connection or discharges to it had been established or approved prior to the effective date of this Article.

(b) If, subsequent to eliminating a connection found to be in violation of this Article, the responsible person can demonstrate that an illegal discharge will no longer occur, said person may request City approval to reconnect. The reconnection or reinstallation of the connection shall be at the responsible person's expense.

Section 16. Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that actually necessary for maintenance, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to erosion. The property owner shall be responsible for maintaining and stabilizing that portion of the watercourse that is within their property lines in order to protect against erosion and degradation of the watercourse originating or contributed from their property.

Section 17. Requirement to Remediate.

Whenever the Public Works Director finds that a discharge of pollutants is taking place or has occurred which will result in or has resulted in pollution of storm water, the storm drain system, or water of the U.S., the Public Works Director may require by written notice to the owner of the property and/or the responsible person that the pollution be remediated and the affected property restored within a specified time pursuant to the provisions of Sections 22 through 25 below.

Section 18. Requirement to Monitor and Analyze.

The Public Works Director may require by written notice of requirement that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to storm water pollution, illegal discharges, and/or non-storm water discharges to the storm drain system or waters of the U.S., to undertake at said person's expense such monitoring and analyses and furnish such reports to the City as deemed necessary to determine compliance with this Article.

Section 19. Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services (911). In the event of a release of non-hazardous materials, said person shall notify the City's Public Works Department in person or by phone or facsimile no later than 5:00 p.m. of the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City's Public Works Department within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Division IV.

Inspection and Monitoring.

Section 20. Authority to Inspect.

Whenever necessary to make an inspection to enforce any provision of this Article, or whenever the Public Works Director has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this Article, the Director may enter such premises at all reasonable times to inspect the same and to inspect and copy records related to storm water compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

Section 21. Authority to Sample, Establish Sampling Devices, and Test.

During any inspection as provided herein, the Public Works Director may take any samples and perform any testing deemed necessary to aid in the pursuit of the inquiry or to record site activities.

Division V.

Enforcement.

Section 22. Intervention.

The primary focus of this ordinance is to reduce and control storm water impacts, and the City will use the amount of enforcement necessary to achieve compliance. Where possible the City will rely on education rather than enforcement. The City Manager may provide education programs or other informational materials that will assist in meeting the desired erosion and sedimentation controls, and other storm water management practices outcomes.

Section 23. Notice of Violation.

Whenever the Public Works Director finds that a person has violated a prohibition or failed to meet a requirement of this Article, the Director may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- (a) The performance of monitoring, analyses, and reporting;
- (b) The elimination of illicit connections or discharges;
- (c) That violating discharges, practices, or operations shall cease and desist;
- (d) The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; and

- (e) Payment of a fine to cover administrative and remediation costs; and
- (f) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work may be done by the City or a contractor designated by the Public Works Director and the expense thereof shall be charged to the violator pursuant to Section 24 below.

Section 24. Stop Work Order.

Whenever any activity is being done contrary to and in violation of this ordinance, the enforcement officer may order the related activity stopped by noticing in writing, posted on the premises, or served on the responsible party. The responsible party shall forthwith stop such work until authorized by the enforcement officer to proceed.

Section 25. Citation for Violation.

Upon a determination that there is a violation of this ordinance, a citation may be issued to the responsible party to appear in Municipal Court.

Section 26. Administrative Compliance Order.

The City may issue an Administrative Compliance Order for any violation. The order shall be in writing, specify the violation(s) and require compliance measures. The order may also include a Notice of Impositions of Administrative Civil Penalty Assessment for the violation.

Section 27. Notice of Imposition of Administrative Ordinance.

If a person fails to comply with applicable provisions of this code or an administrative compliance order, the enforcement officer may issue to the person a Notice of Imposition of an administrative civil penalty.

Section 28. Service.

All notices/orders shall be served by personal service or sent by certified mail and first class mail. Any notice/order served by mail shall be deemed received for purposes of any time computations hereunder, three days after the date mailed, if to an address within this state and seven days after the date mailed, if to an address outside this state.

Section 29. Settlement of Administrative Civil Penalty Assessment.

Upon receipt of Notice of Administrative Civil Penalty Assessment, the violation may request a conference with the City Manager or designee. The City Manager or designee may compromise or settle any unpaid administrative civil penalty assessment where authorized. A request under this paragraph shall not act as a stay, or otherwise affect the filing or processing of an appeal under Section 23.

Section 30. Appeal.

Notwithstanding the provisions of Section 26 below, any person receiving a Notice of Violation, Stop Work Order, Notice of Imposition of an Administrative Civil Penalty or Administrative Compliance Order under Section 22 above may appeal the determination of the Public Works Director to the City Manager. The notice of appeal must be received by the City Manager within 15 days from the date of the Notice of Violation. The appeal shall state the name and address of the appellant, the nature of the determination being appealed, the reason the determination is incorrect, and what the correct determination of the appeal should be. Failure to file such a statement within the time or in the manner required, waives the appellant's objections and the appeal shall be dismissed. Hearing on the appeal before the City Manager or his/her designee shall take place within 30 days from the date of City's receipt of the notice of appeal. At least ten days prior to the hearing, the City shall mail notice of the time and place of the hearing to the appellant. The decision of the City Manager or designee shall be final.

Section 31. Abatement by City.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal under Section 23, within 10 days of the decision of the City Manager upholding the decision of the Public Works Director, then the City or a contractor designated by the Public Works Director shall enter upon the subject private property and is authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the City or designated contractor to enter upon the premises for the purposes set forth above.

Section 32. Charging Cost of Abatement/Liens.

Within 30 days after abatement of the nuisance by the City, the Public Works Director shall notify the property owner of the property of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment with the City Clerk within 15 days. The City Clerk shall set the matter for public hearing by the City Council. The decision of the City Council shall be set forth by resolution and shall be final.

If the amount due is not paid within 10 days of the decision of the City Council or the expiration of the time in which to file an appeal under this Section, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. A copy of the resolution shall be turned over to the County Auditor so that the auditor may enter the amounts of the assessment against the parcel as it appears on the current assessment roll, and the tax collector shall include the amount of the assessment on the bill for taxes levied against the parcel of land.

Section 33. Urgency Abatement.

The Public Works Director is authorized to require immediate abatement of any violation of this Article that constitutes an immediate threat to the health, safety or well-being of the public. If any such violation is not abated immediately as directed by the Public Works Director, the City is authorized to enter onto private property and to take any and all measures required to remediate the violation. Any expense related to such remediation undertaken by the City shall be fully reimbursed by the property owner and/or responsible party. Any relief obtained under this section shall not prevent the City from

seeking other and further relief authorized under this Article.

Section 34. Violations.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Article. A violation of or failure to comply with any of the requirements of this Article shall constitute a misdemeanor and shall be punished as set forth in City Code Section ____.

Section 35. Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Article, the Public Works Director may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

Section 36. Violations Deemed a Public Nuisance

In addition to the enforcement processes and penalties hereinbefore provided, any condition caused or permitted to exist in violation of any of the provisions of this Article is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored by the City at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken by the City.

Section 37. Acts Potentially Resulting in a Violation of the Federal Clean Water Act and/or California Porter-Cologne Act.

Any person who violates any provision of this Ordinance or any provision of any requirement issued pursuant to it, may also be in violation of the Clean Water Act and/or the Porter-Cologne Act and may be subject to the sanctions of those acts including civil and criminal penalties. Any enforcement action authorized under this Ordinance shall also include written notice to the violator of such potential liability.

BMP GUIDANCE SERIES

As described in Section 13(a) of the City's Ordinance No. _____ in the Article titled "Urban Storm Water Quality Management and Discharge Control" the City has adopted this *BMP Guidance Series* containing Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S.

Where Best Management Practices requirements are promulgated by the City or any federal, State of California, or regional agency for any activity, operation, or facility which would otherwise cause the discharge of pollutants to the storm drain system or water of the U.S., every person undertaking such activity or operation, or owning or operating such facility shall comply with such requirements.

The Public Works Director will report to the City Council annually on the status of implementation of BMPs and any new BMPs to be developed for inclusion in the *BMP Guidance Series*.

Notwithstanding the presence or absence of requirements promulgated in this *BMP Guidance Series*, any person engaged in activities or operations, or owning facilities or property which will or may result in pollutants entering storm water, the storm drain system, or waters of the U.S. shall implement Best Management Practices to the extent they are technologically achievable to prevent and reduce such pollutants. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses. Facilities to prevent accidental discharge of prohibited materials or other wastes shall be provided and maintained at the owner or operator's expense.

CONSTRUCTION SITES

This guidance specifies Best Management Practices (BMPs) for construction sites that shall be employed to protect water quality during construction. At a minimum, every construction site shall employ applicable BMPs outlined below. Additional best management practices, measures and controls shall be employed as applicable and to the maximum extent practicable to prevent pollutants from entering stormwater runoff. For additional details on items shown with an asterisk (*), see Section 4 “Sources of Additional Information in this Guidance Series.

Section 1.0

Construction Site Planning BMPs

1.1 *Site Plan*

- 1.1.1 Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the site.
- 1.1.2 Remove existing vegetation only when absolutely necessary.
- 1.1.3 Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
- 1.1.4 Avoid construction on steep slopes*
- 1.1.5 Minimize cuts and fills*
- 1.1.6 Align temporary and permanent roads and driveways along slope contours*

1.2 *Other Measures*

- 1.2.1 Phase grading operations to reduce disturbed areas and time of exposure
- 1.2.2 Avoid excavation and grading during wet weather
- 1.2.3 Winterize construction site*

Section 2.0

EROSION AND SEDIMENT CONTROL BMPs

2.1 *Soil Cover*

- 2.1.1 Install cover materials such as vegetative debris, mulch, crushed stone, geotextile fabric, erosion control blankets*
- 2.1.2 Use soil stabilizers as appropriate*
- 2.1.3 Use temporary seeding and planting to reduce erosion potential*

2.2 *Tracking Control (for sites where on-site room allows for these measures)*

- 2.2.1 Construct stabilized access roads and entrances*
- 2.2.2 Construct entrance/exit tire wash*
- 2.2.3 When cleaning sediments from streets, driveways and paved areas on construction sites, use dry sweeping methods where possible. If water must be used to flush pavement, collect runoff in temporary storage tanks to settle out sediments prior to discharge to the storm drains, and protect storm drain inlets.

2.3 *Structures to Control and Convey Runoff*

- 2.3.1 Earth dikes, drainage swales and ditches*

- 2.3.2 Slope drains and subsurface drains*
- 2.2.3 Velocity dissipation devices*
- 2.3.4 Flared culvert end sections*
- 2.3.5 Check dams*

2.4 Other Measures

- 2.4.1 Slope roughening/terracing/rounding*
- 2.4.2 Level spreader*

2.5 BMPs to Capture Sediment

- 2.5.1 Use terracing, riprap, sand bags, rocks, straw bales, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use asphalt rubble or other demolition debris for this purpose.
- 2.5.2 Protect storm drain inlets from sediment-laden runoff. Storm drain inlet protection devices include sand bag barriers, filter fabric fences, block and gravel filters, and excavated drop inlet sediment traps.*
- 2.5.3 When dewatering the site, remove sediment from the discharge using filtration methods. Mobile units specifically designed for construction site dewatering can be rented for this purpose.

2.6 Other Controls (as required)

- 2.6.1 Silt fence*
- 2.6.2 Straw bale barrier (other than at storm drain inlets)*
- 2.6.3 Sand bag barrier*
- 2.6.4 Brush or rock filter*
- 2.6.5 Sediment trap*
- 2.6.6 Temporary sediment basin*

*For additional details, see Section 4.0 “Sources of Additional Information” below.

Section 3.0

General Site and Materials Management

3.1 All Construction Sites

- 3.1.1 Identify all storm drains, drainage swales and creeks located near the construction site and make sure all subcontractors are aware of their locations to prevent pollutants from entering them.
- 3.1.2 Clean up leaks, drips, and other spills immediately.
- 3.1.3 Refuel vehicles and heavy equipment in one designated location.
- 3.1.4 Wash vehicles at an appropriate off-site facility. If equipment must be washed on-site, do not use soaps, solvents, degreasers, or steam cleaning equipment, and prevent wash water from entering the storm drain.
- 3.1.5 Never wash down pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.
- 3.1.6 Avoid contaminating clean runoff from areas adjacent to your site by using berms and/or temporary or permanent drainage ditches to divert water flow around the site.
- 3.1.7 Keep materials out of the rain. Schedule clearing or heavy earth moving activities for periods

of dry weather. Cover exposed piles of soil, construction materials and wastes with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.

3.1.8 Place trash cans around the site to reduce litter. Dispose of non-hazardous construction wastes in covered dumpsters or recycling receptacles. Recycle leftover materials whenever possible.

3.1.9 Dispose of all wastes properly. Materials that can not be reused or recycled must be taken to an appropriate landfill or disposed of as hazardous waste.

3.1.10 Cover open dumpsters with plastic sheeting or a tarp during rainy weather. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.

3.1.11 Train your employees and inform subcontractors about the stormwater requirements and their own responsibilities.

3.2 Construction Projects Involving Paint Work

3.2.1 Non-hazardous paint chips and dust from dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash. Chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyl tin must be disposed of as a hazardous waste.

3.2.2 When stripping or cleaning building exteriors with high-pressure water, cover or berm storm drain inlets. If possible (and allowed by your local wastewater authority), collect (mop or vacuum) building cleaning water and discharge to the sanitary sewer.

3.2.3 Never clean brushes or rinse paint containers into a street, gutter, storm drain, or creek.

3.2.4 For water-based paints, paint out brushes to the extent possible and rinse to a drain leading to the sanitary sewer (i.e., indoor plumbing).

3.2.5 For oil-based paints, paint out brushes to the extent possible, and filter and reuse thinners and solvents. Dispose of unusable thinners and residue as hazardous waste.

3.2.6 Recycle, return to supplier or donate unwanted water-based (latex) paint.

3.2.7 Dried latex paint may be disposed of in the garbage.

3.2.8 Unwanted oil-based paint (that is not recycled), thinners, and sludges must be disposed of as hazardous waste.

3.3 Construction Projects Involving Cement and Concrete Work

3.3.1 Avoid mixing excess amounts of fresh concrete or cement mortar on-site.

3.3.2 Store dry and wet materials under cover, protected from rainfall and runoff.

3.3.3 Wash out concrete transit mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible, recycle washout by pumping back into mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or creeks.

3.3.4 Whenever possible, return contents of mixer barrel to the yard for recycling. Dispose of small amounts of excess concrete, grout, and mortar in the trash.

3.4 Construction Projects Involving Roadwork/Pavement Construction

3.4.1 Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting stormwater runoff.

3.4.2 Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.

3.4.3 Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.

3.4.4 When making saw-cuts in pavement, use as little water as possible. Cover each storm drain inlet completely with filter fabric during the sawing operation and contain the slurry by placing straw bales, sandbags, or gravel dams around the catch basins. Use a wet-dry vacuum to pick up slurry prior to drying or after the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.

3.4.5 Wash down exposed aggregate concrete only when the wash water can: (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from the area along the curb where sediment has accumulated by blocking a storm drain inlet.

3.4.6 Allow aggregate rinse to settle, and pump the water to the sanitary sewer if allowed by your local wastewater authority.

3.4.7 Never wash sweepings from exposed aggregate concrete into a street or storm drain. Collect and return to aggregate base stockpile, or dispose with trash.

3.4.8 Recycle broken concrete and asphalt.

Section 4.0

Sources of Additional Information

Additional information on Construction Site Controls is available in the publications listed below.

4.1 California Stormwater Quality Association (2003) Storm Water Best Management Practice Handbook - Construction.

4.2 Association of Bay Area Governments. 1995. Manual of Standards for Erosion and Sediment Control Measures. A comprehensive field guide for controlling soil erosion in California.

4.3 BASMAA. 1996. Start at the Source — Residential Site Planning and Design Guidance Manual.

4.4 Caltrans. (2003) Storm Water Quality Handbooks – Construction Contractors Guide and Specifications. May.

4.5 California RWQCB, San Francisco Region, Erosion and Sediment Control Field Manual (most recent edition).

4.6 Caltrans (2003), Storm Water Quality Handbooks – Project Planning and Design Guide.

NEW DEVELOPMENT AND REDEVELOPMENT

The focus of this guidance is post-construction BMPs for new development or redevelopment projects. Post-construction BMPs are grouped into three types:

- **Site Planning Measures** that avoid or reduce disturbance of the site and limit the addition of impervious surfaces;
- **Pollution Prevention and Source Control Measures** that reduce or eliminate potential future sources of pollutants; and
- **Treatment Control Measures** that treat polluted runoff from new development/redevelopment sites.

This guidance is focused strictly on specific controls that can be incorporated into individual development projects to avoid or reduce the pollutants from the particular project. Where appropriate, pros and cons are described along with typical conditions under which these controls have been found to be effective.

The best opportunities for post-construction controls are available in larger projects or when implemented on a regional basis, and most of this guidance emphasizes controls that can be introduced in larger new development/redevelopment projects through the discretionary approval process. The second section of this guidance presents a list of controls that can be employed for small infill-type projects which are subject only to the ministerial approval process where the opportunities are limited.

Projects requiring discretionary approval from the local jurisdiction include almost all projects except minor infill development. This discretionary approval process is commonly the design review process, although other discretionary approvals such as a use permit or a subdivision map approval may also be triggered depending on the characteristics of the project.

Projects requiring ministerial approval are small improvement projects that conform to the site zoning requirements and include either a new single-family unit or minor modifications to an existing single family unit or a single structure. Such projects typically do not need discretionary approval, but will in all cases need a ministerial permit, such as a building or a grading permit.

Post-Construction BMPs for Projects Requiring Discretionary Approvals

Site Planning BMPs

This group of post-construction controls includes site planning to protect sensitive resources at or near the site and the use of alternate paving and cover materials to reduce the amount of impervious surfaces added by a new development. Studies have shown that in single-family residential areas, streets are the primary producers of runoff, and sidewalks and lawns, if properly vegetated, are a minor source. In multi-family developments, streets, parking lots and roofs generate similar quantities of runoff. In commercial/industrial areas, parking lots and roofs are the main generators of runoff. It follows then that to reduce impervious surfaces, in single-family residential areas reduction of street width and driveway lengths should be the primary strategy, while in multi-family developments and industrial/commercial areas, strategies should focus on reducing parking lots and the footprint of buildings. *For more information on site planning, refer to “Start at the Source Residential Site Planning and Design*

Guidance Manual for Stormwater Quality Protection”, available from BASMAA.

Site planning BMPs that minimize impervious surface and maximize infiltration are described below:

- **Cluster development** - Concentrate the development on a limited portion of the site and leave the remaining portion undisturbed. This should be used where appropriate without creating other hazards such as those of access during emergencies.
- **Preserve natural drainages** - This measure includes not filling in the natural drainage features at the site, maintaining invert/streambeds to maximize capacity, and providing vegetated setbacks or buffer strips outside of the maximum water surface level. Main concerns are related to safety especially of children and future need for mosquito/pest control.
- **Reduce sidewalk widths, especially in low-traffic areas** - This control provides limited runoff reduction benefits, and reduction of width may not be possible due to Americans with Disabilities Act (ADA) requirements.
- **Avoid curb and gutter along driveways and streets where appropriate** - This is recommended in areas where flooding and ponding of water creating mosquito habitat is not a problem. Replace with swales.
- **Use alternate paving materials/porous/permeable materials, where appropriate** - This measure includes use of alternate paving materials (e.g., porous asphalt, pervious concrete, pavers), landscaping, mulch, gravel and cobbles where appropriate to provide ground cover, and reduce the use of asphalt or other impervious pavement. Pavers are recommended for driveways, walkways, and patios in single-family residences where the site does not generate highly polluted runoff (that could contaminate groundwater if it were to infiltrate) and where ADA requirements do not have to be met. In non-residential areas, pavers are recommended for emergency access roads, overflow parking areas, and non-handicapped parking stalls. (Note: Some types of alternate paving materials may not be suitable where heavy loads (e.g. truck movement) are anticipated.) *For more information on alternate paving materials, see Post-Construction Controls for New Development Fact Sheets available from BASMAA.*
- **Reduce the length of driveways or infiltrate driveway runoff** - This control applies mainly to single-family residential units. If reduction of the driveway length is not possible, grade and construct driveway so that runoff from driveway is directed to the adjacent landscaped areas.
- **Reduce street width by eliminating on-street parking (where such actions do not pose a safety hazard)** - This measure can be generally used in new residential areas. In addition to reducing the impervious area, this control has the added benefit of removing cars from streets and making street sweeping easier and more effective. If on-street parking in residential areas is eliminated, the developer must provide adequate off-street visitor parking.
- **Reduce alley width or use alternate materials for paving alleys** - If alleys are included in a proposed development, width should be minimized or alternate paving materials should be used.
- **Set aside open space** - This control is recommended for all developments (residential and non-residential). The main concern with open space relates to maintenance, weed control, and fire prevention. This group includes controls that can be incorporated into new development/redevelopment projects to avoid pollution in the long run by eliminating sources.

Pollution Prevention and Source Control BMPs

This group of BMPs includes controls that can be incorporated into new development/redevelopment projects to avoid pollution by eliminating sources.

- **Provide green areas where pets can be exercised** - Pet excrement is a major source of bacteria in urban runoff. Provide green areas in new residential developments where people can walk their pets and keep pet excrement away from sidewalks and streets.
- **Install landscaping or other cover** - Clearing and grading of surfaces in new development can increase potential for erosion. Install landscaping or other cover materials to minimize erosion from graded surfaces. Use of native plant materials is recommended because native plants require less maintenance and irrigation, and are typically more resistant to fires than non-native grasses. Native plants do take longer to cover slopes, therefore during the first few years, supplemental protection (erosion blanket, mulch, etc.) will be necessary.
- **Incorporate low-maintenance landscaping** - At sites where erosion may not be a concern but landscaping is proposed as part of the development, use low-maintenance landscaping that does not require frequent fertilizer, pesticide and herbicide application. Assistance in identifying the types of trees, shrubs, and ground cover that would work in the community, based on local climatic and soil conditions, can be obtained from garden centers, landscapers, and other sources.
- **Label storm drains to discourage dumping** - Label all storm drain inlets and catch basins within the project area with prohibitive language (such as: “NO DUMPING – DRAINS TO OCEAN”) and/or graphical icons to discourage illegal dumping. Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area. Legibility of stencils and signs must be maintained.
- **Where possible, eliminate gutters/roof drains or direct runoff to landscaped areas** - Roof drains can be eliminated only in one to two-story buildings. Where these cannot be eliminated, direct the downspout of the gutter to a landscaped area or into an infiltration trench. Install several gutters to distribute the flow.
- **Construct designated vehicle wash area** - In new residential developments involving more than 50 units, construct a designated vehicle wash area so that the runoff from vehicle washing can be property treated and/or disposed. Contact the local wastewater authority to determine if the discharge can be plumbed to the sanitary sewer. If not, provide appropriate treatment and disposal of this runoff.
- **Where possible use underground parking and the construction of multi-storied parking structures** - For commercial projects build underground or multi-story parking structures so that not only is impervious surface minimized but the parking surfaces are under a roof and not exposed to storm water.
- **Where possible use cooperative or shared parking** - For commercial areas this may be a cooperative effort between commercial entities or between commercial entities and the City.
- **Use alternate paving materials for parking lots** - This control is recommended for overflow parking areas and for less frequently used parking spaces (typically these are spaces along the periphery of the parking lot that will not have to meet ADA requirements and due to low usage there will be less concern regarding pollution of groundwater through infiltration of stall runoff).
- **Use measures to reduce building footprint and increase use of taller structures (where appropriate)** - This control is recommended for commercial and municipal structures, where it would also be consistent with other City planning and building requirements.
- **Berm waste storage areas** - Grade and pave outdoor waste receptacle areas to prevent run-on of storm water, and install a low containment berm around it. Alternately, construct a covered enclosure with wash-down capabilities plumbed into the sanitary sewer, after first contacting the local wastewater authority to verify that this practice will be acceptable.
- **Install valves on storm drain inlets in loading dock areas** - At commercial/industrial facilities where loading docks are proposed, install a valve(s) to control runoff in the event of spills.

Treatment BMPs

This group of BMPs includes controls that can be built at new development and redevelopment sites to capture and treat the polluted runoff before it enters the City's storm drain system or other receiving waters. Those BMPs which are feasible for the proposed development should be incorporated into its design.

Treatment control design standards, depending on the type of units, are based on either treating a given volume of runoff (e.g., first 0.5 inch of runoff) or a peak flowrate associated with a design storm. The volume approach is often utilized for small catchments where there tends to be a "first flush" condition (e.g., a parking lot). Design storms for storm water controls may be small (e.g. recurrence intervals of 3 months to 2 years) compared to flood control designs standards because of the need to minimize the size and cost of the unit, and because most runoff is associated with the more frequent smaller events.

Treatment controls must be designed such that volumes and flows in excess of the design standard bypass the unit, otherwise there is the possibility of aggravating flooding and also causing resuspension of previously captured sediments or other constituents. Also, all of the treatment BMPs described below require some inspection, maintenance, and disposal of solids to ensure optimum performance and often to avoid flooding.

- **Rooftop Catchment Systems** - These are rooftops which can sometimes be designed into large commercial and industrial sites to pool stormwater which, following the storm, evaporates. This effectively eliminates rooftop runoff from the storm drain system, and thereby reduces the hydraulically-connected impervious area. Another function of these systems is to slow down the runoff to reduce peaks. Problems with rooftop catchment systems are mainly related to leakage.
- **Vegetated Filter Strips** - Vegetated filter strips, buffer strips, or riparian buffer zones are strips of vegetation placed between receiving waters (e.g., along streams) and pollutant sources. The effectiveness of the strips depend primarily on the width of the strip, and the vegetation type and condition. Strips of 100-300 feet in width are often considered. Such strips have been successfully applied to urban, agricultural, and forestry situations. Vegetation type selection must take into account the climate and usually should be drought-resistant. Maintenance is primarily annual cutting. Such strips are recommended for developments located along receiving waters such as streams, rivers and lakes, but outside the flood control boundary.
- **Vegetated Swales** - Swales are shallow low gradient channels that are vegetated. They are commonly applied in rural residential areas in lieu of traditional curb/gutters and underground stormwater drainage pipes. Water quality improvement is achieved primarily through filtration, and performance is dependent on the swale hydraulic capacity and vegetation type and condition. Influent water should be relatively free of coarse sediment to avoid burying the vegetation. Where sediment loads are of concern, sediment settling basins can be provided upstream of the swales. Maintenance consists primarily of vegetation management and settling basin cleanouts. Swales are generally recommended for low-density residential developments located in relatively flat terrain.
- **Infiltration Basins** - Infiltration basins store and infiltrate stormwater into the surficial groundwater aquifer. Performance is critically dependent on soil porosity and adequate depth to groundwater. Such conditions are typical of inland valleys, in contrast to low lying coastal areas. In order to maintain recharge rates, influent water may require pretreatment to remove sediments. Infiltration basins are effective at reducing runoff rates and volumes and can provide water supply benefits through aquifer recharge. Maintenance primarily consists of periodic removal of accumulated trash, debris and sediments to maintain recharge rates. Infiltration basins are generally recommended in areas where the depth to groundwater is relatively high and the soils are highly

pervious. Where such conditions exist, this technology is generally applicable to the entire range of urban development, although the potential for groundwater contamination is often of concern in industrial areas.

- **Infiltration Trenches** - Infiltration trenches are shallow drains filled with high porosity materials (e.g. gravel). Stormwater discharged to these trenches is stored during the runoff event and infiltrates into the groundwater during dry weather periods. As with infiltration basins, performance requires porous subsoils and adequate depth to the groundwater table. The acceptability and designs of infiltration trenches must take into consideration the potential for infiltrating water to adversely affect soil strength around foundations. Infiltration trenches are generally not recommended for roof runoff near buildings because of building code requirements; but can be effective as part of the overall open channel drainage system.
- **Dry Detention Ponds/Basins** - These are basins designed to temporarily store and treat storm water prior to gradually releasing it downstream. Such basins can provide flood control and storm water treatment benefits. Treatment performance depends on storage volume (12-24 hours of residence time is considered a good rule of thumb), and good circulation (avoidance of short circuiting). A major factor limiting good performance is that, during larger storm runoff events, water entering a dry basin may resuspend previously settled material in which case the ponds may act as a source of sediment and associated chemicals. In general dry basins are not as effective as wet basins (discussed below), however, in certain arid areas, wet basins are not feasible. Performance of dry basins can be improved by incorporating slow release outlet structures. Such basins are generally applicable to residential, commercial, and industrial development in areas where there is insufficient runoff to maintain wet basins.
- **Retention Ponds/Wet Basins** - These are basins that contain a permanent pool of water. Such ponds can provide flood control, ecological, and water quality benefits. The performance of wet basins depends on the size of the basin, watershed characteristics, and influent conditions. The primary treatment process in retention ponds is settling. Maintenance is required for removing debris, vegetation management, and maintaining the inlet and outlet structures. Accumulation rates in such basins typically require that accumulated sediment be removed about once every 10-20 years. Retention ponds are generally applicable to most urban situations, as long as there is adequate space for the facility and acceptable geological conditions.
- **Constructed/Restored Wetlands** - In addition to providing flood control and water supply benefits through artificial recharge of groundwater, constructed wetlands designed for stormwater management provide water quality benefits through a number of processes including sedimentation, filtration, absorption, biological processes, and nutrient uptake. Pollutant removal performance depends on the size of the wetland relative to the watershed, the design of the wetland, and the type and composition of wetland vegetation. Wetlands also provide additional ecological and recreational benefits. If a significant amount of sedimentation is anticipated, a deep settling basin could be constructed (which the water would enter prior to reaching the wetland). The basin would require periodic maintenance to remove accumulated sediment. Constructed wetlands require maintenance, especially in the first 5-10 years during which vegetation is growing and natural seeding is occurring. Providing suitable hydrologic conditions for vegetation growth and water treatment is key to successful performance of constructed wetlands. Constructed wetlands are generally applicable to most urban situations, as long as there is adequate space for the facility, an adequate source of water, and appropriate soils. In California, such wetlands would likely be seasonal in nature. The cost of urban lands often preclude this type of treatment in the more densely developed portions of urban areas.

A variation of this control is the use of existing wetlands for urban runoff treatment. Existing

wetlands at or downstream of a new development/redevelopment project can be enhanced to improve hydrology, and runoff from the development project can be directed to the wetlands. Note that the dry detention ponds/basins, retention ponds/wet basins, and the constructed wetlands need to be periodically monitored for accumulation of toxic materials, and provisions made for cleanout and disposal pretreatment may be added (to remove heavy sediment trash and debris) to reduce maintenance. If a significant amount of sediment is anticipated, a deep settling basin could be constructed. This would also need to be periodically cleaned out to maintain capacity.

- **Filtration Systems** - Filtration systems convey stormwater through filter media (e.g., sand, compost, charcoal) to treat the storm water. The chemicals treated vary depending on the type of media and may include fine sediment, colloidal material, hydrocarbons, organics, nutrients and dissolved metals. Such systems come in many sizes and designs including: (1) inserts placed in individual storm drain inlets, (2) linear units that treat stormwater from small impervious areas such as parking lots, and (3) large 1-2 acre sand filters that treat runoff from urban catchments. Filters are effective as long as the capacity of the filter is not exceeded, and the filter is not allowed to clog. Filter inserts are particularly problematic in this regard, and recent testing and evaluation questions their applicability where material in runoff will clog or block the filter. In stormwater applications filter systems are required to remove blocking materials (leaves, trash, debris, sediments, oil and grease) and storage to better manage flowrates. Experience to date with filter type inserts for drain inlets suggest that the units are easily clogged with sediment and debris, with resultant bypassing of most of the flows. Therefore, inserts are not recommended unless require frequent inspection and cleaning is performed. Filtration systems will have limited application in small well-maintained parking lots.

- **Oil/Grit Separators** - Oil/grit (gravity) separators are usually multi-chambered treatment units that are placed underground and treat stormwater from a drainage catchment. The individual chambers often are designed to trap grit and floatables, and adsorb hydrocarbons. Flows in excess of the design capacity should be diverted around the unit, otherwise there is the possibility that sediment previously trapped in the chambers will be resuspended and flushed downstream. Inspection and maintenance is required to ensure that the units are not filling up with sediment, as accumulation can affect performance. Traditional gravity oil/water separators that utilize skimming devices and coalescing plates (to increase droplet size and capture) are generally not applicable to stormwater conditions where total hydrocarbon concentrations are generally less than 10 mg/l. The performance of oil/grit separators varies depending on the chosen design. Research should be done before selecting any separators to verify that they will perform as desired. In general, oil/grit separators are useful only at sites where there are chances that oil spills could occur and to a limited degree at development sites that have high oil and grease loadings such as petroleum storage yards and vehicle storage facilities.

Post-Construction BMPs for Projects Requiring Ministerial Approvals

- **Incorporate low-maintenance landscaping** - Use low-maintenance drought-tolerant landscaping that does not require frequent fertilizer, pesticide and herbicide application.
- **Label storm drains to discourage dumping** - Label all storm drain inlets and catch basins within the project area with prohibitive language (such as: “NO DUMPING – DRAINS TO OCEAN”) and/or graphical icons to discourage illegal dumping. Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area. Legibility of stencils and signs must be maintained.

- **Where possible, direct gutters to landscaped areas** - Roof drains may be eliminated only in one to two-story buildings. Where these cannot be eliminated, direct the downspout of the gutter to landscaped area or into an infiltration trench. Install several gutters to distribute the flow. Note that roof drains may be eliminated in residential and some commercial areas only, and should not be eliminated in industrial areas.
- **Use alternate paving materials/porous/permeable materials, where appropriate** - Use alternate paving materials (pavers), landscaping, mulch, gravel and cobbles where appropriate to provide ground cover, and reduce the use of asphalt or other impervious pavement. Pavers are recommended for driveways, walkways, and patios in single-family residences where the site does not generate highly polluted runoff (that could contaminate groundwater if it were to infiltrate) and where ADA requirements do not have to be met. In non-residential areas, pavers are recommended for emergency access roads, overflow parking areas, and non-handicapped parking stalls. These are not recommended where heavy loads (e.g. truck movement) are anticipated. For more information on alternate paving materials, see Post-Construction Controls for New Development Fact Sheets available from BASMAA.

Providing Proof of Ongoing BMP Maintenance

As part of project review, if a project applicant is required to include Structural or Treatment Control BMPs in project plans, the City will require that the applicant provide verification of maintenance provisions through such means as may be appropriate, including, but not limited to legal agreements, covenants, CEQA mitigation requirements and/or Conditional Use Permits.

For all properties, the verification will include the developer’s signed statement, as part of the project application, accepting responsibility for all structural and treatment control BMP maintenance until the time the property is transferred and, where applicable, a signed agreement from the public or private entity assuming responsibility for Structural or Treatment Control BMP maintenance. A sample agreement is included in Attachment A at the end of this section.

The transfer of property to a private or public owner shall have conditions requiring the recipient to assume responsibility for maintenance of any Structural or Treatment Control BMP included in the sales or lease agreement for that property. The condition of transfer shall include a provision that the property owners conduct maintenance inspection of all Structural or Treatment Control BMPs at least once a year and retain proof of inspection. For residential properties where the Structural or Treatment Control BMPs are located within a common area which will be maintained by a homeowner’s association, language regarding the responsibility for maintenance shall be included in the projects conditions, covenants and restrictions (CC&Rs).

Printed educational materials will be required to accompany the first deed transfer to highlight the existence of the requirement and to provide information on what storm water management facilities are present, signs that maintenance is needed, and how the necessary maintenance can be performed. The transfer of this information shall also be required with any subsequent sale of the property.

Sources of Additional Information

For additional information on post-construction controls for new development and redevelopment

projects, see the following:

Bay Area Stormwater Management Agencies Association. 1996. Start at the Source. Residential Site Planning and Design Guidance Manual for Stormwater Quality Protection.

City of Olympia. 1994. Impervious Surface Reduction Study. Conducted by the Public Works Department. Water Resources Program. November. (for information on reducing impervious surfaces such as street widths, sidewalks, and parking facilities).

Wilson, A. 1994. "Stormwater Management, Environmentally Sound Approaches", published in the Environmental Building News, Vol. 3, No. 5, September/October. (for a general discussion of new development controls).

City of San Rafael. 1991. Hillside Residential Design Guidelines Manual. Prepared by Gast Hilmer Associates. (for more information on designing and building residential developments in hilly areas).

Bay Area Stormwater Management Agencies Association (BASMAA). 1997. Compilation of New Development Stormwater Treatment Controls in the San Francisco Bay Area. June. (For treatment controls)

California State Stormwater Quality Task Force. 1993. California Stormwater Best Management Practice Handbook - Municipal. March. (For treatment controls)

US Environmental Protection Agency. 1993. Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Issued Under Authority of Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990. EPA 840-B-92-002. January.

Center for Watershed Protection, Watershed Protection Techniques, A Quarterly Bulletin on Urban Watershed Restoration and Protection Tools.

Center for Watershed Protection. 1996. Design of Stormwater Filtering Systems, prepared for Chesapeake Research Consortium, December.

Center for Watershed Protection. 1995. Site Planning for Urban Stream Protection, prepared by T. Schueler for Metropolitan Washington Council of Governments. (For information on cluster development, stream protection buffers, street reduction controls)

MANDATORY DESIGN STANDARDS

All discretionary development and redevelopment projects that fall into one of the following categories are subject to the Design Standards set forth below. These categories are:

1. Single-Family Hillside Residences
2. 100,000 Square Foot Commercial Developments
3. Automotive Repair Shops
4. Retail Gasoline Outlets
5. Restaurants
6. Home Subdivisions with 10 or more housing units
7. Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff

1. Design Standards Applicable to All Categories:

a. Peak Storm Water Runoff Discharge Rates. Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion.

b. Conserve Natural Areas. If determined appropriate by the City, the following items must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- 1) Concentrate or cluster Development on portions of a site while leaving the remaining land in a natural undisturbed condition.
- 2) Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.
- 3) Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.
- 4) Promote natural vegetation by using parking lot islands and other landscaped areas.
- 5) Preserve riparian areas and wetlands.

c. Minimize Storm Water Pollutants of Concern. The development must be designed so as to minimize, to the maximum extent practicable, the introduction of pollutants of concern that may result in significant impacts, generated from site runoff of directly connected impervious areas (DCIA), to the storm water conveyance system as approved by the building official. Pollutants of concern consist of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna. In meeting this specific requirement, “minimization of the pollutants of concern” will require the incorporation of a BMP or combination of BMPs best suited to maximize the reduction of pollutant loadings in that runoff to the Maximum Extent Practicable.

d. Protect Slopes and Channels. Project plans must include BMPs consistent with local codes, ordinances, or other regulatory mechanism and these Design Standards to decrease the potential of slopes and/or channels from eroding and impacting storm water runoff:

- 1) Convey runoff safely from the tops of slopes and stabilize disturbed slopes.
- 2) Utilize natural drainage systems to the maximum extent practicable.
- 3) Stabilize permanent channel crossings.
- 4) Vegetate slopes with native or drought tolerant vegetation, as appropriate.
- 5) Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion, with the approval of all agencies with jurisdiction, e.g., the U.S. Army Corps of Engineers and the California Department of Fish and Game.

e. Provide Storm Drain System Stenciling and Signage. All storm drain inlets and catch basins within the project area must be stenciled with prohibitive language (such as: “NO DUMPING – DRAINS TO OCEAN”) and/or graphical icons to discourage illegal dumping. Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area. Legibility of stencils and signs must be maintained.

f. Properly Design Outdoor Material Storage Areas. Outdoor material storage areas refer to storage areas or storage facilities solely for the storage of materials. Where proposed project plans include outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system, the following Structural or Treatment BMPs are required:

- 1) Materials with the potential to contaminate storm water must be: (a) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (b) protected by secondary containment structures such as berms, dikes, or curbs.
- 2) The storage area must be paved and sufficiently impervious to contain leaks and spills.
- 3) The storage area must have a roof or awning to minimize collection of storm water within the secondary containment area.

g. Properly Design Trash Storage Areas. A trash storage area refers to an area where a trash receptacle or receptacles (dumpsters) are located for use as a repository for solid wastes. All trash storage areas must meet the following Structural or Treatment Control BMP requirements (individual single family residences are exempt from these requirements):

- 1) Trash container areas must have drainage from adjoining roofs and pavement diverted around the area(s).
- 2) Trash container areas must be screened or walled to prevent off-site transport of trash.

h. Provide Proof of Ongoing BMP Maintenance. If a project applicant has included or is required to include, Structural or Treatment Control BMPs in project plans, the applicant shall provide verification of maintenance provisions through such means as may be considered appropriate by the City, including but not limited to legal agreements, covenants, CEQA mitigation requirements and/or Conditional Use Permits. For all properties, the verification will include the developer’s signed statement, as part of the project application, accepting responsibility for all structural and treatment control BMP maintenance until the time the property is transferred and, where applicable, a signed agreement from the public entity

assuming responsibility for Structural or Treatment Control BMP maintenance. The transfer of property to a private or public owner must have conditions requiring the recipient to assume responsibility for maintenance of any Structural or Treatment Control BMP to be included in the sales or lease agreement for that property, and will be the owner's responsibility. The condition of transfer shall include a provision that the property owners conduct maintenance inspection of all Structural or Treatment Control BMPs at least once a year and retain proof of inspection. For residential properties where the Structural or Treatment Control BMPs are located within a common area which will be maintained by a homeowner's association, language regarding the responsibility for maintenance must be included in the project's conditions, covenants and restrictions (CC&Rs). Printed educational materials will be required to accompany the first deed transfer to highlight the existence of the requirement and to provide information on what storm water management facilities are present, signs that maintenance is needed, how the necessary maintenance can be performed, and assistance that the City may be able to provide. The transfer of this information shall also be required with any subsequent sale of the property. If Structural or Treatment Control facilities are located within a public area proposed for transfer, they will be the responsibility of the developer until they are accepted for transfer by the public agency. Structural or Treatment Control facilities proposed for transfer must meet design standards adopted by the public entity for the facilities installed and shall be approved by the public agency prior to its installation.

i. Properly Design Structural and Treatment Control Facilities. Structural and treatment control facilities shall be designed based on either a volumetric or flow based treatment control design standard, or both, as described below to mitigate (infiltrate, filter or treat) storm water runoff:

1) Volumetric Treatment Control Design Standard:

a) The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998); or

b) The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/ Commercial, (2003); or

c) The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

2) Flow Based Treatment Control Design Standard:

a) The flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the area; or

b) The flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards above.

Limited Exclusion: Restaurants and Retail Gasoline Outlets, where the land area for development or redevelopment is less than 5,000 square feet, are excluded from the numerical Structural or Treatment Control BMP design standard requirement only.

2. Provisions Applicable to Individual Priority Project Categories:

a. 100,000 Square Foot Commercial Developments:

1) Properly Design Loading/Unloading Dock Areas:

- a) Cover loading dock areas or design drainage to minimize run-on and runoff of storm water.
 - b) Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.
- 2) Properly Design Repair/Maintenance Bays:
- a) Repair/maintenance bays must be indoors or designed in such a way that doesn't allow storm water runoff or contact with storm water runoff.
 - b) Design a repair/maintenance bay drainage system to capture all washwater, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local wastewater authority, obtain an Industrial Waste Discharge Permit.
- 3) Properly Design Vehicle/Equipment Wash Areas:
- a) Self-contained and/ or covered areas must be equipped with a clarifier, or other pretreatment facility, and
 - b) Properly connected to a sanitary sewer or other appropriately permitted disposal facility.

b. Restaurants:

- 1) Properly Design Equipment/Accessory Wash/Steam Clean Areas:
- a) These areas must be self-contained, equipped with a grease trap, and properly connected to a sanitary sewer.
 - b) If the wash area is to be located outdoors, it must be covered, paved, have secondary containment, and be connected to the sanitary sewer or other appropriately permitted disposal facility.

c. Retail Gasoline Outlets:

- 1) Properly Design Fueling Area:
- a) The fuel dispensing area must be covered with an overhanging roof structure or canopy. The canopy's minimum dimensions must be equal to or greater than the area within the grade break. The canopy must not drain onto the fuel dispensing area, and the canopy downspouts must be routed to prevent drainage across the fueling area.
 - b) The fuel dispensing area must be paved with Portland cement concrete (or equivalent smooth impervious surface), and the use of asphalt concrete shall be prohibited.
 - c) The fuel dispensing area must have a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents runoff of storm water to the extent practicable.
 - d) At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.

d. Automotive Repair Shops:

- 1) Properly Design Fueling Area:
- a) The fuel dispensing area must be covered with an overhanging roof structure or canopy. The canopy's minimum dimensions must be equal to or greater than the area within the grade break. The canopy must not drain onto the fuel dispensing

area, and the canopy downspouts must be routed to prevent drainage across the fueling area.

b) The fuel dispensing area must be paved with Portland cement concrete (or equivalent smooth impervious surface), and the use of asphalt concrete shall be prohibited.

c) The fuel dispensing area must have a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents runoff of storm water to the extent practicable.

d) At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.

2) Properly Design Repair/Maintenance Bays:

a) Repair/maintenance bays must be indoors or designed in such a way that doesn't allow storm water run-on or contact with storm water runoff.

b) Design a repair/maintenance bay drainage system to capture all wash-water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local wastewater authority, obtain an Industrial Waste Discharge Permit.

3) Properly Design Vehicle/Equipment Wash Areas:

a) These areas must be self-contained and/or covered, equipped with a clarifier, or other pretreatment facility, and properly connected to a sanitary sewer or other appropriately permitted disposal facility.

4) Properly Design Loading/Unloading Dock Areas:

a) Cover loading dock areas or design drainage to minimize run-on and runoff of storm water.

b) Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.

e. Parking Lots:

1) Properly Design Parking Areas:

a) Reduce impervious land coverage of parking areas.

b) Infiltrate or treat runoff.

2) Properly Design To Limit Oil Contamination and Perform Maintenance:

a) Treat to remove oil and petroleum hydrocarbons at parking lots that are heavily used (e.g. fast food outlets, lots with 25 or more parking spaces, sports event parking lots, shopping malls, grocery stores, discount warehouse stores).

b) Ensure adequate operation and maintenance of treatment systems particularly sludge and oil removal, and system fouling and plugging prevention control.

3. Waiver.

At its discretion and for good cause, the City may waive one or more of the requirements set forth in this Section if impracticability for a specific property can be established. A waiver of impracticability shall be granted only when all other Structural or Treatment Control BMPs have been considered and rejected as infeasible. Recognized situations of impracticability include, (i) extreme limitations of space for treatment on a redevelopment project, (ii) unfavorable or unstable soil conditions at a site to attempt infiltration, and (iii) risk of ground water contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is

less than 10 feet from the soil surface. A waiver may be revoked for cause and with proper notice.

4. Limitation on Use of Infiltration BMPs.

Three factors significantly influence the potential for storm water to contaminate ground water. They are (i) pollutant mobility, (ii) pollutant abundance in storm water, (iii) and soluble fraction of pollutant. The risk of contamination of groundwater may be reduced by pretreatment of storm water. In addition, the distance of the groundwater table from the infiltration BMP may also be a factor determining the risk of contamination. A water table distance separation of ten feet depth in California presumptively poses negligible risk for storm water not associated with industrial activity or high vehicular traffic.

Site specific conditions must be evaluated when determining the most appropriate BMP. Additionally, monitoring and maintenance must be provided to ensure groundwater is protected and the infiltration BMP is not rendered ineffective by overload. This is especially important for infiltration BMPs for areas of industrial activity or areas subject to high vehicular traffic [25,000 or greater average daily traffic (ADT) on main roadway or 15,000 or more ADT on any intersecting roadway]. In some cases pretreatment may be necessary.

5. Alternative Certification for Storm Water Treatment Mitigation.

In lieu of conducting a detailed BMP plan review to verify Structural or Treatment Control BMP adequacy, the City may, at its discretion, elect to accept a signed certification from a Civil Engineer or a Licensed Architect registered in the State of California, that the plan meets the criteria established herein. Certifying person(s) will have to demonstrate to the City's satisfaction that they have been trained on BMP design for water quality not more than two years prior to the signature date. Training conducted by an organization with storm water BMP design expertise (e.g., a University, American Society of Civil Engineers, American Society of Landscape Architects, American Public Works Association, or the California Water Environment Association) may be considered qualifying.”

