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# CLEAN-UP & SANITATION PROCEDURES FOR COUNTY-MAINTAINED DRAINAGE CULVERTS/CHANNELS & SOFT SCAPE AREAS WITHIN UNINCORPORATED COMMUNITIES OF SAN DIEGO COUNTY

SEPTEMBER 19, 2009

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## OBJECTIVE

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The purpose of this document is to provide guidance on procedures for the clean-up and sanitation of County-maintained lined (e.g. concrete, corrugated metal pipe, etc.) drainage culverts/channels and soft scape areas (e.g. riverbeds, ravines, open space, etc.) in areas where significant numbers of homeless persons are living in unsanitary conditions within unincorporated communities.

## PUBLIC NOTIFICATION

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Public notification must adhere to applicable regulations prior to the cleanup, removal, and storage of personal property found in County-maintained drainage culverts, channels, and soft scape areas within unincorporated communities.

When applying a disinfectant/sanitizer, notice of application in accordance with Title 3 California Code of Regulations (3CCR) 6618 must be provided to the operator of the property and persons who are in the property to be treated or who may enter during the application or the period of time that any restrictions on entry are in effect.

## HAZARD ASSESSMENT

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For the safety of everyone working in the area to be cleaned up and/or sanitized, a hazard assessment must be conducted by an appropriately trained individual to identify any hazardous or otherwise unsafe items or conditions prior to conducting any clean up and/or sanitation activities. These items can include, but are not limited to, confined spaces, environmental hazards (e.g. snakes, insects, poison oak, etc.), hazardous chemicals, medical waste (including syringes, feces, blood, or personal property that is visually contaminated by feces and/or blood), drug paraphernalia, firearms, live ammunition, explosives, or weapons. All employees or contractors should be properly trained prior to conducting a hazard assessment or any activities included in this clean-up and sanitation procedure. Training should include, but is not limited to:

- 40 hour HazWoper training with current refresher training.
- Occupational Safety and Health Administration (OSHA) Universal and Standard Precautions for Bloodborne pathogens and other Potentially Infectious Materials.
- OSHA regulations for confined space entry (Chapter 4 - Division of Industrial Safety - Subchapter 7, General Industry Safety Orders) dependent upon site conditions.
- Employers must assure employees that handle disinfectants comply with employee safety requirements in 3CCR Division 6, Chapter 3, Subchapter 3 Pesticide Worker Safety or the applicable requirements of Title 8 California Code of Regulations (see 3CCR 6720(c) for corresponding provisions).

Other training may be required for the safe handling of hazardous and biohazardous wastes.

## CLEAN-UP PROCEDURES AND ENVIRONMENTAL RULES/BEST PRACTICES

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There are four options for completing clean-up work in drainage culverts, channels, and soft scape areas. As described below, County environmental staff may need to be consulted prior to undertaking any clean-up or sanitation activities in

natural soft scape areas within or around lined culverts/channels or natural drainage features. Additional consultation with state and/or federal agencies may also be required based on site-specific characteristics.

**1. RGP53 Permit Facilities (both lined and unlined channels):**

There are 1,056 drainage facilities within unincorporated communities detailed in the County's RGP53 401 Permit. If the area to be cleaned is an existing RGP53 permitted facility, clearing debris, removing sediment, and some vegetation removal are already permitted. Either hand tools or mechanical means can be used to clear the channel. The Permit defines the limits of footprint for the permitted area. Activities are only allowed under the Permit outside bird breeding season (September 15<sup>th</sup> to March 15<sup>th</sup>).

**2. Permits not required by Staying in Compliance (non-RGP53 Permit Facilities):**

For facilities not covered under Option 1 above, removal of debris and non-native vegetation is allowed within federal and state jurisdictional wetlands if native habitat and stream channel is left undisturbed. Criteria includes:

- a. Define limit of work. Determine if a biological monitor is needed to stay in compliance.
- b. Have biologist determine if site in either a biologically sensitive area or within a federal or state jurisdictional area. In addition, make determination whether biological monitor is needed for the site.
- c. Clean-up must occur between September 15<sup>th</sup> and March 15<sup>th</sup>.
- d. Document before and after conditions.
- e. If required, biologist should notify resource agencies of activity proposed to ensure they are aware of situation and purpose of clean-up.
- f. Hand tools can be used to remove debris, non-native vegetation, and waste. No mechanized equipment is allowed within the channel.
- g. No soil disturbance should occur other than to remove waste.
- h. Site must be cleared and cleaned at the end of each day when clean-up or sanitation activities take place, with no stockpiling of material within the wetlands.

**3. Emergency cleaning of Lined, Unlined Drainages or within banks of Natural Channels – REQUIRES PRIOR APPROVAL FROM COUNTY ENVIRONMENTAL STAFF**

If an imminent threat to life or property exists, the County can request a Regional General Permit (RGP63) during an emergency. Although similar protocol would be followed, the RGP63 would allow more activities than Option 2, as ground disturbance or mechanical equipment may be needed to alleviate the emergency condition. According to US Army Corps of Engineers code, an emergency situation is defined as:

*An "emergency situation" is present where there is a clear, sudden, unexpected, and imminent threat to life or property demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property or essential public services (i.e., a situation that could potentially result in an unacceptable hazard to life or a significant loss of property if corrective action requiring a permit is not undertaken immediately).*

Standard protocols would be followed for emergency work without permits.

- a. Define limit of work. Determine what work needs to be done to address the emergency.
- b. Have biologist determine if located in either a biologically sensitive area or within a federal or state jurisdictional area. In addition, make determination whether biological monitor is needed for the site.
- c. No limitation on time of year to do work during an emergency situation.
- d. Document before and after conditions.
- e. Send notice to US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) of the location, extent, and purpose of the emergency work including all measures that will be taken to protect the environmentally sensitive area.

- f. If possible, use hand tools to remove debris from the area. Do not remove any native vegetation and limit sediment disturbance beyond what is needed for removal of waste. If mechanized equipment is needed, document why and limit disturbance as much as possible using laydown mats and other means.
  - g. Site must be cleared and cleaned at the end of each day when clean-up or sanitation activities take place with no stockpiling of material within the wetlands.
  - h. Document work completed and follow-up with agencies to close out.
- 4. Obtain permits from Resource Agencies – REQUIRES PRIOR APPROVAL FROM COUNTY ENVIRONMENTAL STAFF**  
 If the situation does not fall within Options 1-3, an individual permit may be needed. Working with the resource agencies from USACE, RWQCB, and CDFW to determine appropriate Nationwide or Regional Permits that apply to intended activities. Permits would likely require several months to obtain and costs could vary depending on the size of the site and activities proposed. The County does have contracts in place with USACE and RWQCB to expedite permitting for County projects through Water Resource Development Act (WRDA) agreements.

## SANITATION PROCEDURES

In times of elevated risk to public health, (example: Declared Public Health Emergency for Hepatitis A outbreak), implementation of sanitation procedures are necessary. Disinfectants used must be registered with the United States Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (CDPR). Only registered disinfectant products approved for controlling the contagion outbreak are to be used. Application of the disinfectant must be in accordance with label specifications. Product names can be searched in the CDPR registered product data base at: <http://cdpr.ca.gov/docs/label/labelque.htm>. Additionally, specific product label interpretation questions can be directed to County of San Diego Department of Agriculture, Weights and Measures Pesticide Regulation Program at (858) 694-8980.

One example of a disinfectant that could be used is high concentration CDPR Registered bleach (sodium hypochlorite) solutions approved for Hepatitis A which are effective and universally available products for the disinfection of various types of surfaces. Other registered pesticides with different active ingredients effective against Hepatitis A are also available. Consistent with the 2012 City of Los Angeles Department of Public Works Bureau of Sanitation Operation Healthy Streets Protocol, for the purposes of disinfecting County-maintained culverts, channels, and soft scape areas within unincorporated communities the following procedures will be followed after conducting a hazard assessment:

- I. Sanitation Procedures for Lined Drainage Culverts & Channels (e.g., concrete, corrugated metal pipe, etc.)**
1. Avoid conducting sanitation operations within 48 hours of any predicted rain event.
  2. While wearing appropriate personal protective equipment (PPE), prepare a 5,000 ppm solution of bleach and water (Solution A). Use 5.25% sodium hypochlorite bleach and mix a 1:10 dilution (1 part sodium hypochlorite, 9 parts water).
 

**NOTE:** Use of sodium hypochlorite bleach that is not 5.25% requires appropriate adjustment of the dilution ratio as allowed by the product label to reach the desired concentration of 5,000 ppm.
  3. Use a chlorine test strip to ensure you have reached the desired concentration (5,000 ppm). There are several test strips that are commercially available.
  4. Fill Hudson sprayers or similar application equipment.
  5. Use appropriate containment at culvert/channel inlets and outlets prior to application of bleach solution to capture and prevent discharge of any contaminants.
  6. Carefully spray all feces, blood, bodily fluids or contaminated surfaces with Solution A and wait for a minimum of 10 minutes.
 

**NOTE:** Bleach solution should not be applied directly to natural soft scape areas within or around lined culverts/channels. Refer to Section II below (Sanitation Procedures for Soft Scape Areas) for the appropriate process in these areas.

7. After 10 or more minutes, carefully remove and containerize feces or other contaminated solid materials for proper disposal.  
**NOTE:** Medical waste including syringes, feces, blood, or personal property that is visually contaminated by feces and/or blood, should be managed and disposed of as biohazardous waste.
8. Respray any newly exposed surfaces with Solution A. Limit application to only area where removal occurred.  
**NOTE:** No mechanized equipment is allowed in natural soft scape areas within or around lined culverts/channels unless permitted under appropriate environmental option(s) described above.
9. Use a test strip on treated surfaces to determine if the chlorine has adequately degraded and verify all product label requirements have been met prior to leaving the site.
10. PPE and/or tools that have become contaminated must be disinfected or disposed of appropriately.

## II. Sanitation Procedures for Soft Scape Areas (e.g. riverbeds, ravines, open space, etc.)

1. While wearing appropriate personal protective equipment (PPE), carefully remove all feces, blood, bodily fluids or contaminated surfaces utilizing hand tools and containerize feces or other contaminated solid materials for proper disposal.  
**NOTE:** Medical waste including syringes, feces, blood, or personal property that is visually contaminated by feces and/or blood, should be managed and disposed of as biohazardous waste.  
**NOTE:** No mechanized equipment is allowed in natural soft scape areas within drainage channels unless permitted under appropriate environmental option(s) described above.
2. After completing Step 1, move away from the soft scape area/natural drainage channel and prepare a 5,000 ppm solution of bleach and water. Use 5.25% sodium hypochlorite bleach and mix a 1:10 dilution (1 part bleach, 9 parts water).  
**NOTE:** Use of sodium hypochlorite bleach that is not 5.25% requires appropriate adjustment of the dilution ratio as allowed by the product label to reach the desired concentration of 5,000 ppm.  
**NOTE:** Bleach solution should not be applied directly to natural soft scape areas.
3. Use a chlorine test strip to ensure you have reached the desired concentration (5,000 ppm). There are several test strips that are commercially available.
4. Fill Hudson sprayers or similar application equipment.
5. Carefully spray all containerized feces, blood, bodily fluids or contaminated surfaces collected during step 1 above with Solution A and wait for a minimum of 10 minutes prior to disposal. Use caution to avoid spraying the solution on to soft scape areas.  
**NOTE:** Bleach solution should not be applied directly to natural soft scape areas.  
**NOTE:** Medical waste including syringes, feces, blood, or personal property that is visually contaminated by feces and/or blood, should be managed and disposed of as biohazardous waste.
6. PPE and/or tools that have become contaminated must be disinfected or disposed of appropriately.

It is important to note that higher concentrations and elevated temperatures can cause chlorine to degrade quickly over time. It is recommended that a fresh solution be made each day that sanitization is necessary to ensure the most effective solution is used.

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### ENVIRONMENTAL RESPONSIBILITY

During times of elevated risk to public health, (example: Declared Public Health Emergency for Hepatitis A outbreak) weekly monitoring should occur in areas where significant numbers of homeless persons are living in unsanitary conditions within unincorporated communities, with spot maintenance or additional rounds of the complete sanitation process as needed based on site conditions.

## REFERENCES

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1. City of Los Angeles. *Operation Healthy Streets Protocol*. 2012.
2. U.S. Occupational Safety & health Administration. *Healthcare Wide Hazards*. 2017. Retrieved from: <https://www.osha.gov/SLTC/etools/hospital/hazards/univprec/univ.html>
3. Center for Disease Control and Prevention. *Chemical Disinfectants - Guideline for Disinfection and Sterilization in Healthcare Facilities*. 2008. Retrieved from: <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/chemical.html>
4. U.S. Army Public Health Command. *Preparing and Measuring High Chlorine Concentration Solution for Disinfection*. 2014. Retrieved from: [https://phc.amedd.army.mil/PHC%20Resource%20Library/TIP\\_No\\_13-034-1114\\_Prepare\\_Measure\\_High\\_Chlorine\\_Solutions.pdf](https://phc.amedd.army.mil/PHC%20Resource%20Library/TIP_No_13-034-1114_Prepare_Measure_High_Chlorine_Solutions.pdf)
5. U.S. Army Corps of Engineers Regional General Permit Number 53 for County of San Diego Routine Flood Control Maintenance Activities (SPL-2015-00131-MG). 2016. Retrieved from: <http://www.spl.usace.army.mil/Portals/17/docs/regulatory/RGP/RGP532016.pdf>
6. U.S. Army Corps of Engineers Regional General Permit Number 63 for Repair and Protection Activities in Emergency Situations (File No. SPL-2013-00609-BAH). 2013. Retrieved from: [http://www.spl.usace.army.mil/Portals/17/docs/regulatory/Permit\\_Process/Technical/RGP63\\_Permit\\_29Nov2013\\_2.pdf](http://www.spl.usace.army.mil/Portals/17/docs/regulatory/Permit_Process/Technical/RGP63_Permit_29Nov2013_2.pdf)
7. CDPR Product/Label Database: <http://cdpr.ca.gov/docs/label/labelque.htm>



# SANITATION PROCEDURES FOR PUBLIC RIGHT-OF-WAYS

UPDATED OCTOBER 6, 2017



## OBJECTIVE

The purpose of this document is to provide operating procedures and recommendations for the sanitation of public right-of-ways (e.g., sidewalks, streets, and gutters) in times of elevated risk to public health, (example: Declared Public Health Emergency for Hepatitis A outbreak).

## PUBLIC NOTIFICATION

Public notification must adhere to the respective jurisdiction regulations and/or constitutional protections prior to the cleanup, removal, and storage of personal property found on public right-of-ways. Each jurisdiction should consult with its legal counsel concerning these or related requirements.

When applying a disinfectant/sanitizer, notice of application must be in accordance with Title 3 California Code of Regulations (3CCR) 6618.

## HAZARD ASSESSMENT

For the safety of everyone working in the area to be sanitized, it is recommended that a hazard assessment be conducted to identify any hazardous or otherwise unsafe items prior to conducting any sanitation activities. These items can include, but are not limited to hazardous chemicals, infectious waste (e.g., hypodermic needles/sharps), drug paraphernalia, firearms, live ammunition, explosives, or weapons. All employees or contractors should be properly trained prior to conducting a hazard assessment or any activities included in this sanitation procedure. Training should include, but is not limited to:

- 40 hour HazWoper training with current refresher training
- Occupational Safety and Health Administration (OSHA) Universal and Standard Precautions for Bloodborne Pathogens and other Potentially Infectious Materials
- Employers must assure employees that handle disinfectants comply with employee safety requirements in 3CCR Division 6, Chapter 3, Subchapter 3 or the applicable requirements of 8CCR (*see 3CCR 6720(c) for corresponding provisions*)

Other training may be required for the safe handling of hazardous and biohazardous wastes.

## SANITATION PROCEDURE

Disinfectants used must be registered with the United States Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (CDPR). Only registered disinfectant products approved for Hepatitis A are recommended for use. Application of the disinfectant must be in accordance with label specifications.

Product names can be searched in the CDPR registered product data base at:

<http://cdpr.ca.gov/docs/label/labelque.htm>. Additionally, questions on product labels can be directed to County of San Diego Department of Agriculture, Weights and Measures Pesticide Regulation Program at (858) 694-8980.

High concentration chlorine (sodium hypochlorite) solutions are effective and universally available products for the disinfection of a wide range of surfaces. For the purposes of sanitizing public right-of-ways, it is recommended, and consistent with the 2012 City of Los Angeles Department of Public Works Bureau of Sanitation Operation Healthy Streets Protocol, that the following procedures be followed after conducting a hazard assessment:

1. While wearing appropriate personal protective equipment (PPE), prepare a 5,000 ppm solution of bleach and water (Solution A). Use 5.25% chlorine (sodium hypochlorite) and mix a 1:10 dilution (1 part bleach, 9 parts water).
2. Use a chlorine test strip to ensure you have reached the desired concentration (5,000 ppm). There are several test strips that are commercially available.
3. Fill Hudson sprayers or similar distribution equipment.
4. Cover all storm drains to prevent run off.
5. Carefully spray all feces, blood, bodily fluids or contaminated surfaces with Solution A and wait for a minimum of 10 minutes.
6. After 10 or more minutes, carefully containerize feces or any other contaminated solid materials for disposal to landfill.
7. Respray any newly exposed surfaces with Solution A and wait for a minimum of 10 minutes.
8. Pressure-wash the sidewalks, streets, gutters, and inlet of storm drain catch basins with water.
9. Recover the generated waste water with a Vactor Truck for disposal to the sanitary sewer.
10. Mix 1 part of Solution A with 9 parts water to make Solution B (500 ppm) for final disinfection.
11. Use a chlorine test strip to ensure you have reached the desired concentration (500 ppm).
12. Carefully spray all washed areas with Solution B and wait for a minimum of 30 minutes to allow for adequate disinfection and degradation of residual chlorine.
13. Use a test strip on treated surfaces to determine the chlorine has adequately degraded prior to reoccupation.
14. PPE and/or tools that have become contaminated should be disinfected or disposed of appropriately.

It is important to note that higher concentrations and elevated temperatures can cause chlorine to degrade quickly over time. It is recommended that a fresh solution be made each day to ensure the most effective solution is used.

#### RECOMMENDED FREQUENCY

In concentrated areas of homeless and drug using individuals, after the complete sanitation process (above), weekly spot maintenance should occur with additional rounds of the complete sanitation process at least every two weeks.

#### REFERENCES

1. City of Los Angeles. *Operation Healthy Streets Protocol*. 2012.
2. U.S. Occupational Safety & health Administration. *Healthcare Wide Hazards*. 2017. Retrieved from: <https://www.osha.gov/SLTC/etools/hospital/hazards/univprec/univ.html>
3. Center for Disease Control and Prevention. *Chemical Disinfectants - Guideline for Disinfection and Sterilization in Healthcare Facilities*. 2008. Retrieved from: <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/chemical.html>
4. U.S. Army Public Health Command. *Preparing and Measuring High Chlorine Concentration Solution for Disinfection*. 2014. Retrieved from: [https://phc.amedd.army.mil/PHC%20Resource%20Library/TIP\\_No\\_13-034-1114\\_Prep\\_Measure\\_High\\_Chlorine\\_Solutions.pdf](https://phc.amedd.army.mil/PHC%20Resource%20Library/TIP_No_13-034-1114_Prep_Measure_High_Chlorine_Solutions.pdf)
5. Occupational Safety and Health Administration: <https://www.osha.gov/>
6. California Code of Regulations, Title 3 and Title 8: <https://govt.westlaw.com/calregs/>
7. CDPR Product/Label Database: <http://cdpr.ca.gov/docs/label/labelque.htm>

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