

INTEGRATED PEST MANAGEMENT PROGRAM ROOT AND COCKROACH CONTROL POLICY

CITY OF BURBANK PUBLIC WORKS DEPARTMENT



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Background

The City of Burbank owns, operates and maintains its sanitary sewer system. Part of the operations and maintenance duties include:

1. controlling roots and preventing them from entering the system and damaging sewer pipelines; and
2. controlling cockroaches to prevent the spread of disease.

The purpose of this document is to provide a description of the Integrated Pest Management (IPM) Program and to establish the City's Root and Cockroach Control Policy as it relates to IPM.

Integrated Pest Management is defined by the United States Environmental Protection Agency (US EPA) as follows:

"Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices."

This definition, and IPM as a whole, refer to "pests." Cockroaches are clearly "pests"; however, it is not obvious to many that roots are also considered "pests." For reference, the document "Sewer Line Root Control" by the University of California Statewide Integrated Pest Management Project Pesticide Education Program, 1996, defines "pest" as follows:

A pest is anything that: (1) competes with humans, domestic animals, or desirable plants for food, feed, or water; (2) injures humans, animals, desirable plants, structures, or possessions; (3) spreads diseases to humans, domestic animals, wildlife, or desirable plants; or (4) annoys humans or domestic animals. Types of pests include:

- *weeds, which may include mosses, algae, dandelions, and plant parts such as root intrusions into wastewater collection systems*

Therefore, roots in sanitary sewer pipelines are considered "pests" and the management of them in an "effective and environmentally sensitive approach" is how root control relates to IPM. Roots cause damage to sewer pipes and create blockages in flow, which can lead to Sanitary Sewer Overflows (SSOs). When an SSO occurs, the City is obligated to respond, maintain the system, clean the affected area, monitor for further issues, and report the SSO incident to various regulatory agencies. The City has identified that the primary cause of SSOs is blockages from roots, grease, and rags/debris. Adherence to the root control policy will assist in eliminating more costly maintenance and repairs, in addition to the SSOs themselves.

Root Control

The City's environmentally sensitive approach to root control, as detailed below, is to utilize mechanical methods rather than applying chemicals. The use of chemical pesticides is regulated by the EPA's Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the California Department of Pesticide Regulation (CDPR). By using mechanical root control methods, the City avoids the costs involved with complying with these regulatory agencies.

The wastewater collection system within the City includes both sewer main lines and sewer laterals serving private properties. The City is responsible for maintaining the sewer main lines, whereas the private property owner is responsible for maintaining the entire sewer lateral (per BMC 8-1-107). Tree roots can enter the City's sewer system through both private sewer laterals and by getting directly into the sewer mains. Although the Root Control Policy applies to City maintained sewers, the City encourages private property owners to clean and maintain their private sewer laterals through the City's Sewer Lateral User Rebate Program (SLURP). SLURP encourages residents to maintain their sewer laterals through a rebate program, which will be discussed in more detail further below.

The City of Burbank's sanitary sewer system includes approximately 230 miles of sewer main line pipe. The City's Wastewater/Sewer system is divided into 20 sections for maintenance purposes. Staff is assigned specific locations to conduct maintenance throughout the year. City crews have a daily goal of approximately 6,000 to 8,000 feet. The City of Burbank Public Works Department utilizes a Geographical Information System (GIS) for its wastewater system maps. Documentation of sewer line cleaning is entered into the GIS program, approximately daily as the work is completed, using tablet technology. A cleaning report can be accessed in the GIS program which shows the most recent cleaning of each pipeline. The Collection Systems Crew performs systematic cleaning of the sewer system, beginning at the outer edges of the collection system and working toward the Burbank Water Reclamation Plant (BWRP).

The Collection Systems Crew cleans the gravity sewer lines on a regular basis. All pipes ten inches (10") or less in diameter are typically hydro-jetted with a standard cleaning nozzle, or root saw. All pipes greater than ten inches (10") in diameter are hydro-jetted. Crews utilize either the Combo Truck or the Jet Truck to clean the City sewer mains using a hydro nozzle, typically either a 30-degree standard cleaning nozzle or bulldog nozzle. The work is completed pipeline by pipeline, and section by section. If the crew feels that a second pass of the pipeline is warranted while cleaning a main, then a second cleaning pass is done. It is noted that the second cleaning may be done using a mechanical root cutter if necessary.

Sewer lines are currently video inspected on an as-needed basis, with every pipeline in the collection system on an inspection schedule. This video inspection is an important component of the City's condition assessment process used in the prioritization of preventative maintenance activities and the correction of structural deficiencies. Inspection of the collection system is performed systematically, beginning with the sections with the oldest pipelines and working toward the sections with more recently installed pipeline.

The City utilizes its CCTV capability to classify inspected sewer mains and private lateral connections. Sewer mains are identified as having grease, roots or rags/debris, and are categorized based on the severity of the condition. Lateral connections are also classified based on their degree of root infestation or debris at the connection with the City main. The criteria under which Sewer Mains & Private Lateral Connections are classified are as follows: Heavy/Major, Moderate/Medium and Light/Minor. The initial classification is at the discretion of the field operator and is then verified by Engineering staff when the video inspections are subsequently reviewed. Sewer mains which have heavy or moderate debris that could cause an SSO are addressed immediately. Sewer mains with light debris are cleaned in a timely manner based on the maintenance schedule.

As previously mentioned, private sewer lateral connections are privately owned and maintained by the property owner, as specified in the Burbank Municipal Code (BMC). During the CCTV inspections by the City, the private lateral connections are also observed. If a medium or major amount of debris is observed, then a courtesy contact is made by Wastewater Systems staff informing the property owner of the discovery along with information about the SLURP which is geared to residential premises. Those connections which service commercial or industrial users, if deemed to contribute to possible blockages, trigger inspections from the Industrial Waste Inspectors. For possible residential issues, staff researches the information via the GIS systems to identify the private lateral and determine which resident is affected. After this research takes place and the resident is identified, staff contacts the resident by written correspondence sent through the mail. Encouraging residents to have their sewer lateral cleaned serves as an important component of the City's preventative maintenance efforts, as it helps to control roots before they enter the City's sewer main lines and cause blockages or structural damage.

Cockroach Control

The City's environmentally sensitive approach to cockroach control is addressed by utilizing the services of a company licensed by the CDPR. The City has procured the services of Golden Bell Products for the application of Insecta cockroach control in approximately 3,700 City sewer maintenance holes. Golden Bell has the sole-source right for the application and distribution of Insecta within the State of California. Golden Bell Products is licensed by the CDPR and carries and maintains all current registrations

with the County Agricultural Commissioners in the counties in which they apply the Insecta pesticide. Insecta has been used in sewer maintenance holes for the control of cockroaches since October 1998, when the first test area was treated in the State of California. It is the only registered product of its type labeled for use in sewer maintenance holes. The product has worked very well and is typically applied every two years.

Conclusion

The City of Burbank Public Works Department is an active participant in IPM through its effective and environmentally sensitive approaches to controlling roots and cockroaches. The City's policy of utilizing mechanical root control methods and the limited application of a state-registered chemical for cockroach control in sewer maintenance holes have been found to be highly effective and environmentally sensitive, and are therefore IPM compliant. These IPM compliant policies are preventative measures against tree roots causing structural damage to sewer lines and creating blockages and SSOs, and against the spread of disease by cockroaches.