

City of Milpitas

Odor Control Action Plan



Maintenance-Level Plan

Revised June 2008

1. INTRODUCTION

This maintenance-level odor action plan calls for the ongoing monitoring of odors and provides guidance for responding to excessive odor complaints exceeding baseline benchmarks established during the period of October 2003 to June 2008. The objective is to ensure that odor generators continue to maintain their best management practices and controls to keep odor incidents as low as practicable. The plan is a transition from the City's 2003 Odor Action Response Plan that reduced odor incidents to a baseline level through active stakeholder coordination. It continues many of the processes outlined the 2003 plan, including use of the Bay Area Air Quality Management District (BAAQMD) rapid notification process. Under this maintenance-level plan, staff will provide Council updates only an as needed basis and will continue to incorporate administrative changes in order to ensure that the processes and stakeholder contact information remains current.

2. BACKGROUND

On October 7, 2003, the City Council held a public hearing to receive testimony about chronic odor episodes within the City. Stakeholders including members of the community, regulatory agencies, and selected facilities attended. After receiving public comment, the Council directed staff to work with stakeholders to develop and implement an odor action plan. The objective was to reduce odor incidents by obtaining the cooperation and coordination of stakeholders and by simplifying the complaint reporting process.

Staff prepared the Odor Action Plan according to the following principles:

- **Centralized Complaints Handling.** Publicizing use of the BAAQMD Hotline (1-800-334-6367) would reduce confusion about how to submit complaints. It also reduces regulatory duplication.
- **Timely Notifications.** Quick feedback to potential sources about odor events would allow them to adjust or stop their odor generating processes. Sources identified this component as the most effective way to help them control odors from their sites.
- **Prevention/Oversight Accountability.** Development and implementation of best management practices at each potential source would yield consistent, responsive and effective odor control.

Staff implemented the plan upon Council's acceptance and provided Council quarterly status reports for the next three and one half years. At its June 19, 2007 meeting, Council reduced the reporting frequency from quarterly to annual. All other provisions of the action plan were to be continued, including the use of the BAAQMD odor hotline and the rapid notification process.

2.1 Stakeholders

Stakeholders consist of the members of the community, regulatory agencies, and potential odor sources that worked together to reduce the incidences of odor complaints. A history of stakeholder meeting is including in Appendix A.

Milpitas Community: The activities of the Milpitas community are adversely affected from odor incidents. It is the duty of the sources and the regulatory community to limit odor incidents to the maximum extent practicable. The community can assist this process by reporting odor incidents in a timely fashion and providing the BAAQMD investigator specific information about odors.

Regulatory Agencies:

California Integrated Waste Management Board (CIWMB) - This state agency is charged with developing and enforcing regulations for air quality. CIWMB oversees the performance of Local Enforcement Agencies (LEAs). CIWMB also shares permitting and environmental review at landfill, recycling, and compost facilities.

The Bay Area Air Quality Management District (BAAQMD) - BAAQMD is a special district charged with enforcing air quality regulations for stationary sources in the San Francisco Bay Area. It is the lead agency for investigation and control of odors. Upon receipt of a complaint, BAAQMD assigns a control number and sends an investigator to interview the complainant and locate the odor source. BAAQMD enforces when five or more odor events are verified by the investigator within a 24-hour period, and if the odor source site is identified. This process is undergoing a review and may include future revisions. The BAAQMD odor complaint process is shown in Figure 1.

City of San Jose Local Enforcement Agency (LEA) - The 1989 California Integrated Waste Management Act charged Local Enforcement Agencies with monitoring, and enforcing odor emission from composting facilities. The local LEA is the Code Enforcement Section of the Planning Department of the City of San Jose. The LEA is responsible for permitting, inspecting, and enforcing regulations.

Potential Sources: Figure 2 shows the locations of potential odor sources, which are largely outside of the City of Milpitas. All sites were visited as part of a background review. Staff met with representatives from each site to discuss odor sources and methods to control odors.

City of Milpitas Sewage Collection System - The City's sewage collection system consists of laterals, sewers and pump stations. Odorous gases form from the decomposition of organic material. Odors are generated where sewage is detained and are released with turbulent flow. Such locations include the Main Sewer Lift Station located at the northwest corner of the city and the Venus Way Sewer Pump Station located near the corner of Capitol Avenue and Venus Way. The Main Sewer Lift station is currently undergoing a total reconstruction to be completed October 2008. During the design phase a comprehensive odor analysis was conducted that determined that specific odor control was not warranted. The Venus station is less likely to generate odors because it is relatively small and consists of submersible pumps within a covered, wet vault.

San Jose/Santa Clara Water Pollution Control Plant (WPCP) - This 50 year-old facility is located on Zanker Road a mile west of the City. The WPCP treats sewage from

Figure 1
BAAQMD Odor Complaint Process

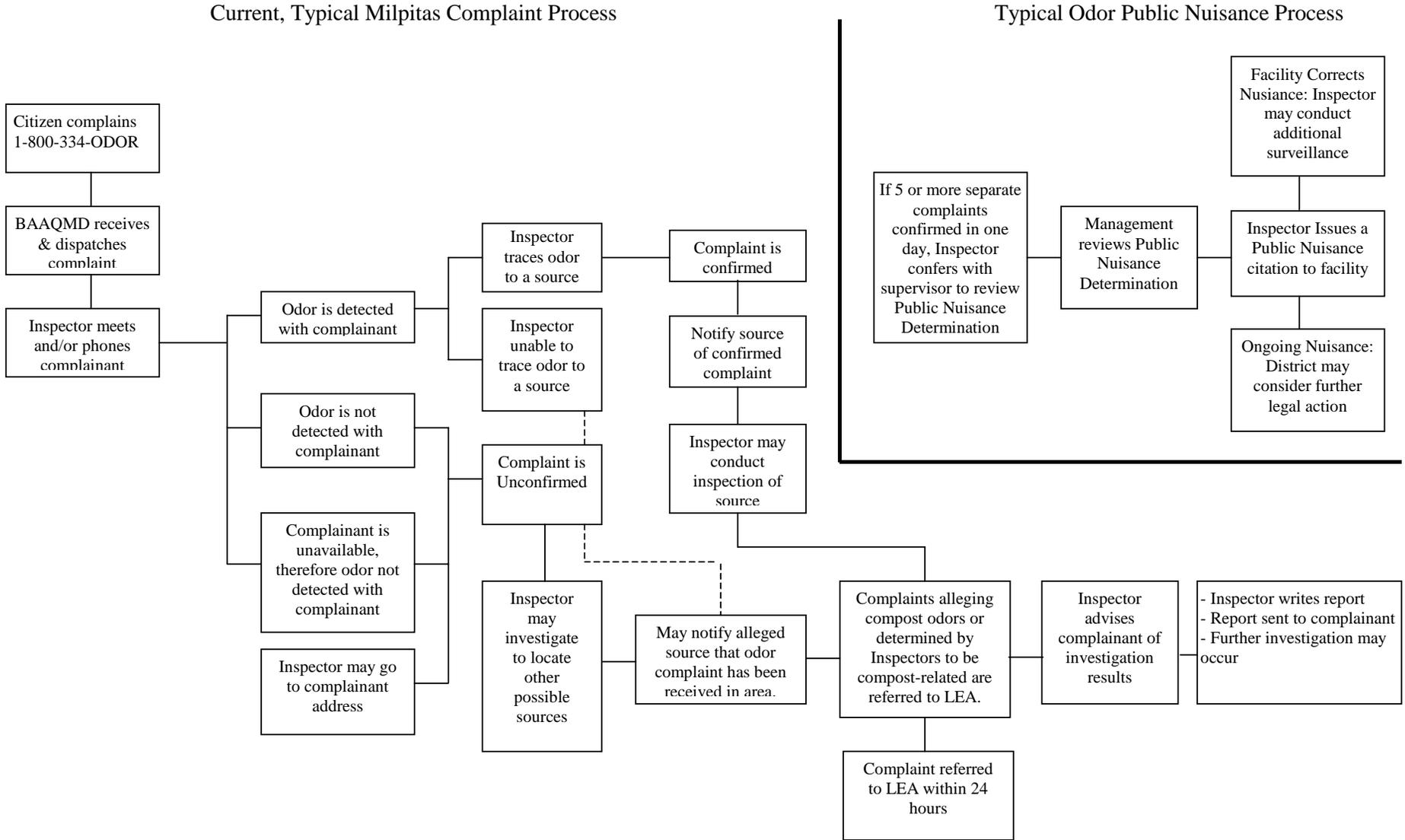


Figure 2
Potential Odor Sources Locations



Milpitas, San Jose, Santa Clara, and other Santa Clara communities. Odors are generated in the sewage treatment and solids handling processes. The treatment process first separates solids and liquids. Solids are treated by anaerobic digestion for about 30 days, stored in open air lagoons for 3 to 4 years, and then air dried in open drying beds. Finally, the solids are hauled to the adjacent Newby Island landfill for use as alternative daily cover. Odor controls include the use of chemicals such as chlorine, hydrogen peroxide, ferric chloride, and odor-masking agents. The WPCP began a master planning effort in 2008 to guide the reconstruction of the facility to be conducted over the next 20 years.

Allied Waste – Newby Island Landfill - This landfill, located about one mile west of the City of Milpitas near Dixon Landing Road, was constructed in the 1930's and has an estimated life until 2023. Trash collected from Milpitas and other Santa Clara communities is disposed at this site. The facility covers approximately 350 acres and handles about 845,000 tons of solid waste each year. Disposal is into cells with daily cover applied each evening. Methane and other gases may be generated as a result of trash decomposition.

Allied Waste - Compost Facility - This facility is located about one mile west of the City of Milpitas boundary at Dixon Landing Road. The facility processes green and food waste into compost by aerobically decomposing the materials over about a 90-day period. Green wastes are shredded and dampened added prior to placement in windrows for decomposition. The windrows are aerated mechanically. Food wastes (including organics from the City of Milpitas) are placed into windrows that are covered with fabric and are aerated by means of negative pressure by fans.

Zanker Road Landfill/Compost Facility. This facility, located about 1.8 miles to the west of Milpitas, was constructed in 1985 and has an estimated life until 2023. It covers about 70 acres, with 46 acres of permitted disposal and the other 24 acres established as wetlands. Landfilling operations include processing and disposal of nonhazardous, noncompostable, inert mixed wastes, as well as recycling residuals from the on site resource recovery activities. It handles about 300,000 tons of material each year. The Landfill composts yard waste by conventional open-windrow composting. Windrows are watered and turned daily and the compost process is completed in twelve weeks. Each day about 100 tons of grass and leaves is composted.

The same company operates the neighboring Zanker Materials Processing Facility, with similar landfill operations. This second site is 70 acres and also handles about 300,000 tons of material each year. The resource recovery facility processes concrete, demolition debris, wood waste, glass, soil, and yard-waste and composting. There is no composting. Disposal includes daily cover of trash cells.

San Francisco Bay and Creeks). Natural decomposition of organic material occurs in the San Francisco bay wetlands west of Milpitas. During windy conditions, marsh sediments may be churned and odors released. Such events are more likely to occur during the spring and/or fall. Cargill formerly produced commercial salt by evaporating brine in a series of drying ponds on the bay fringe. In August 2002, a transfer pump at Cargill Salt Pond A18 failed, resulting in exposure and decomposition of pond bottom

organic material. BAAQMD issued public nuisance citations. Cargill since installed gates on levees to allow gravity transfer of water between ponds. Portions of the Cargill holdings are now part of the South Bay Salt Pond Restoration Project.

2.2 Implementation of Best Management Practices (BMPs).

City staff and regulatory agencies completed site visits to each of the possible odor source facilities. Facility staff has shared information on their operation and details on odor control practices. The sites have best management practices (BMPs) to control odors. Among the practices noted are:

Allied – Compost Facility. Allied submits an odor minimization plan, required to be submitted by all compost facilities under Integrated Waste Management Board regulations, to the LEA each year. The plan includes odor-monitoring protocols, summary of meteorological conditions affecting migration of odors, and a complaint response procedure. Allied has improved various aspects of the plan over the years, including rapid response to odor complaints identifying Newby Island as the source.

Allied – Landfill. The landfill is contracted to the WPCP to accept and beneficially reuse Class A biosolids as alternate daily cover. Allied and WPCP staff monitor a weather station at the WPCP to forecast wind conditions and possible inversion layers which may adversely disperse odors during the loading and transportation of the biosolids. Allied and the WPCP found in 2005 that transporting biosolids from the drying beds windrows directly to the landfill without stockpiling reduced odor complaints. Allied has made several other operational changes reducing odor generation and dispersion, including:

- Increased monitoring of meteorological conditions at the facility and use of meteorological data to minimize potential impacts of odor beyond the site boundary.
- The conduct of a research and development program (test period from about February 2005 to March 2007) to assess the advantages and disadvantages of composting yard waste on the top of the landfill.
- Receiving dried sludge from the WPCP for disposal at the landfill during periods when meteorological conditions favor maximum odor dispersion and dispersion in a direction away from receptors.

Water Pollution Control Plant (WPCP). WPCP has implemented a BMP plan which includes extended solids stabilization enclosing process areas and ventilation through scrubbing or dispersion stacks, use of water trucks to control dust and completion of biosolids removal by each afternoon and use of mobile misting neutralizing chemicals, among others. An on-site weather station provides wind speed and direction data, which assists in making operational decisions. The WPCP implemented several changes to its practices to control generation of odors from the sludge drying and hauling operations, including:

- Increased monitoring of meteorological conditions at the facility and use of meteorological data that affect odor generating operations and, hence, minimize potential impacts of odor beyond the site boundary.

- More attention paid by plant personnel to hauling dried sludge during periods of the year and under meteorological conditions that were not conducive to odor dispersion and to dispersion over areas of high population density.

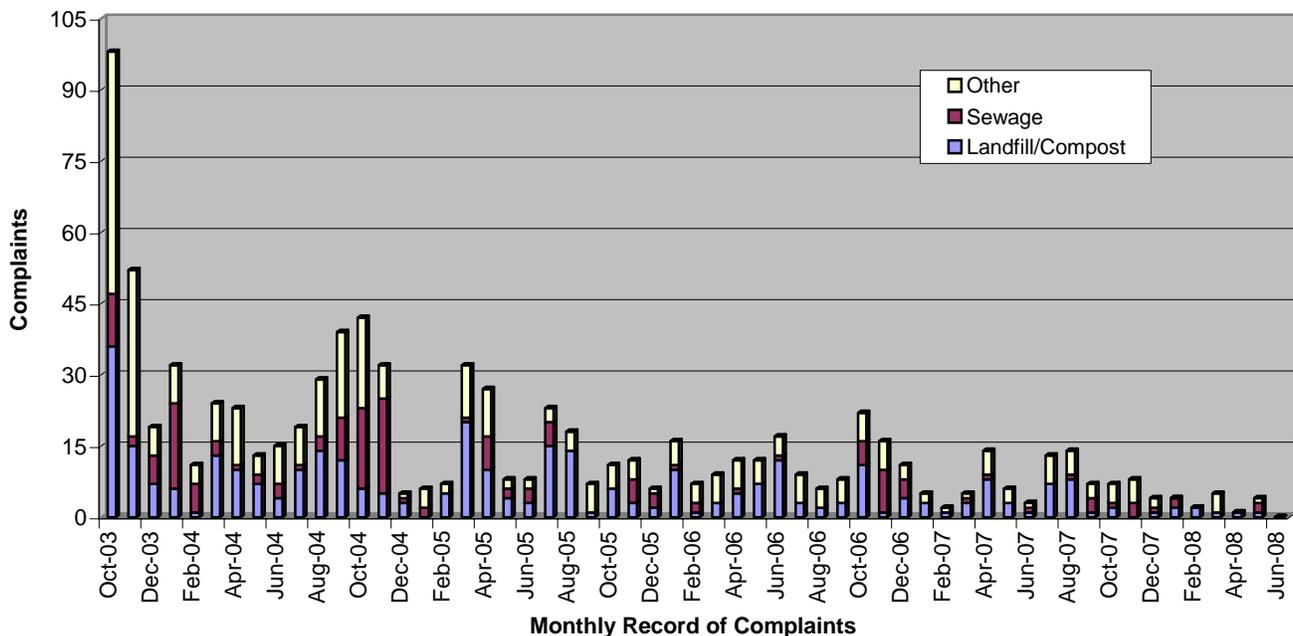
Odor Advice. The City employs a consultant to provide odor management advice. The scope of activities includes as-needed services for the odor outreach program, review of best management practices at potential odor sources, advice on legislative changes, and support at coordination and public sessions.

Additional Meteorological Stations and Monitoring. The City of Milpitas installed meteorological stations at: 1) the City's sewage pumping station located adjacent to the WPCP and Newby Island, and 2) the City's Public Works department. These stations allow a better understanding of local weather conditions affecting odor transport and help assess odor incidences. Data from the City's meteorological stations complement meteorological conditions monitored by Allied/BFI at the Newby Island Landfill location and by the WPCP at the wastewater treatment plant.

Over the course of the last three and one-half years, odor complaints have decreased and are now at a baseline level as shown in Figure 3. It is appropriate to transition to a maintenance-level odor control action plan that will continue the rapid notification and complaint tracking processes. The objective of this plan is to ensure that odor generators continue to maintain their BMPs and controls to keep odor incidents as low as practicable. The BAAQMD rapid notification process will remain in effect and staff will continue tracking complaints to ensure that they remain at the currently attained baseline level.

Figure 3

Oct 2003 - May 2008 Odor Complaint Summary



3. MAINTENANCE LEVEL ODOR ACTION PLAN

Due to the effectiveness of the City's odor management program, the City is transitioning to a maintenance-level plan consisting of on-going verification of proper operation of the rapid notification process and monitoring of alleged complaints to identify situations wherein the action (trigger) benchmarks are reached or exceeded. Components of the Maintenance-Level Odor Action Plan are as follows.

3.1 Streamlined Complaint Process. The Bay Area Air Quality Management District reporting hotline will continue as the centralize complaint receipt site. BAAQMD inspectors will now immediately investigate potential odor sources prior to interviewing complainant. The contact number is 1-800-334-ODOR or 1-800-334-6367. Outreach to advise the public of the number and what to provide is being implemented includes:

- Flyers placed at public counters
- Flyer as appears on www.ci.Milpitas.ca.gov
- Public Service Announcements – City Media (1510AM, KMLP15 – TV)
- Advertisement in “City Information Pages” of the May 2008 *Milpitas Yellow Pages*
- Flyers available at annual Celebrate Milpitas! Art & Wine Festival
- Flyers available at annual Family Day

3.2 Rapid Notification Plan. The rapid notification provides real-time information to regulatory agencies and stakeholders that may correlate to specific plant operations. It gives agencies and stakeholders the opportunity to take proactive steps to mitigate any potential odor impacts. Notifications are sent to the City of Milpitas and the City of San Jose LEA. Memorandums of understanding to receive complaint notifications have been completed between BAAQMD and Allied, Calpine, Cargill, WPCP and Zanker.

3.3 Triggers for Significant Incident Response Plan. Trigger levels of significant odor complaints are defined from experience gained over the past 36 months about the number of complaints indicating a potentially sustained problem. The triggers are at a level higher than the random baseline and indicate that action is needed to investigate and resolve the cause of odor. The trigger levels lower than regulatory levels because it is prudent to trigger City and facility (source) action before the BAAQMD is obligated to take regulatory action. The benchmarks or trigger levels to invoke the Significant Incident Plan are:

- 3 or more complaints per day from a single reporting location over 2 consecutive days, or
- 16 or more complaints from a single reporting location over a 30-day period.

If either of these trigger levels is exceeded, the City will implement Significant Incident Response Plan.

3.4 Significant Incident Response Plan

The following plan has been developed by CalRecovery, the City's consultant, to be implemented in the event of a “Significant Odor Incident” (SOI). A SOI is a condition wherein the frequency or intensity of odor complaints is above the baseline. Such a situation requires

review and verification by City staff. Upon determination that a SOI may have occurred, city staff shall begin the following process:

Preliminary Investigation

1. Staff contacts sources of complaint calls to confirm if the odors are still being observed and alleged source of odors.
2. Staff contacts facility (ies) that are described in call complaints as the alleged sources of the odors to determine if, in the potential source's, opinion there is a reason for the odor complaints, or if there have been any changes in operations near the time of the complaints that could have been the reason for the odor complaints, etc.
3. Based on the results of the above contacts and a preliminary analysis of the situation, staff will decide if odor frequency indicates that facilities are not following best management practices (BMPs) and may proceed to the next step of the Plan.

Notifications. If staff concludes that BMPs are not being followed, staff will notify the following entities and to trigger all or part of the described actions, as appropriate:

1. Public Works Director (PWD) will be notified of the observations and premise that triggered the SOI,
2. Alleged Source(s) will be notified to implement their response plan (see Attachment 2),
3. Regulatory Agency (BAAQMD and/or LEA) may be contacted to verify their response and follow up investigation status,
4. Consultant may be asked to correlate meteorological and other factors to assist in verifying source(s), and assist as needed.
5. City Council will be notified in the weekly update that the number of complaints exceeded the benchmark and will be given information about the cause and response.

Staff Investigation. If the results of the preliminary investigation are inconclusive, City staff may tour the area of complaints and source(s) in conjunction with affected stakeholders. Depending on the results of this tour, staff sources implement their contingency plans, as described below. Staff may track and document corrective activities and results and brief PWD (and others as needed) of status.

Allied Response Plan

1. Facility receives report of SOI by City Staff.
2. Facility immediately examines operational activities and downloads information from on-site weather station to determine likelihood of being the odor-causing agent.
3. If possible odor-producing agent, facility implements the following options:
 - Immediately suspends the suspected odor-causing activity/operation(s) as allowed by law.
 - Implements odor control measures.
 - Implements additional damage control measures (i.e. drive to the odor incident area to witness the event and/or interview witnesses).
 - Review operation to determine causation and future preventative steps.
 - If unlikely odor-producing agent, facility continues operations but reviews possible odor-generating procedures to preclude potential incidents.
4. In both scenarios, coordination with BAAQMD inspector(s), LEA inspector(s) and City on findings applies.

WPCP Response Plan

1. Facility (computer room) receives report of SOI by City Staff.
2. Facility staff contact is alerted.
3. Facility immediately examines on-site activities and obtains weather satellite information to determine likelihood of being the odor-causing agent.
4. If possible odor-producing agent, facility implements the following options:
 - Immediately suspends the suspected odor-causing activity/operation(s) as allowed by law.
 - Implements odor control measures (i.e. mister device).
 - Implements additional damage control measures (i.e. drive to odor incident area to witness the event and/or interview witnesses).
 - Review operation to determine causation and future preventive steps.
5. If unlikely odor-producing agent, facility continues operations but reviews possible odor generating procedures to preclude potential incidents.
6. Provide finding to BAAQMD inspector(s), LEA inspector(s), and City on findings applies.

Debriefing. If needed, City staff will conduct debriefing on findings from alleged source and regulatory agencies to determine cause, and develop recommendations to prevent future recurrences.

1. A subsequent session with stakeholders may be conducted to share information and update plans to minimize future episodes.
2. All findings, actions and recommendations to be filed for use during any subsequent episodes.

APPENDIX A
Stakeholder Site Visit and Coordination Session Summary

Date	Activity
10-16-03	<u>Stakeholder Coordination Kickoff Meeting</u>
10-22-03	Regulatory Stakeholder Meeting
10-24-03	Water Pollution Control Plant (WPCP) Site Visit
10-28-03	Stakeholder Coordination Meeting
10-29-03	Review w/BAAQMD of complaint process
10-30-03	Cargill Coordination Meeting
10-30-03	<u>Regulatory Stakeholder Meeting</u>
10-31-03	<u>BFI Compost Site Visit w/BAAQMD and LEA</u>
11-12-03	<u>Zanker Landfill Site Visit</u>
11-14-03	<u>Regulatory Stakeholder Meeting</u>
11-14-03	Cargill Site Visit
11-17-03	<u>CIWMB Conference Call Meeting</u>
11-18-03	<u>Calpine Los Esteros Power Plant Site Visit</u>
11-18-03	<u>Stakeholder Coordination Meeting</u>
11-25-03	Regulatory Stakeholder Conf. Call
11-25-03	<u>BFI D-Shape Parcel Review Meeting</u>
12-01-03	<u>Milpitas Sewage Pump Stations Site Visit</u>
12-17-03	<u>Regulatory Stakeholder Meeting</u>
2-5-04	<u>Stakeholder Coordination Meeting</u>
2-10-04	<u>Odor Consultant Kickoff Meeting</u>
2-24-04	<u>WPCP Best Management Practices Site Visit</u>
3-29-04	<u>Newby Island Best Management Practices Site Visit</u>
5-11-04	<u>Cargill Best Management Practices Site Visit</u>
5-12-04	<u>Zanker Best Management Practices Site Visit</u>
5-25-04	<u>Allied Site Visit with LEA/Cal Recovery</u>
6-17-04	<u>South Bay Salt Pond Tour</u>
7-1-04	<u>Odor Consultant Contingency Plan Meeting</u>
7-12-04	<u>Weather Station Meeting</u>
7-21-04	<u>BAAQMD Coordination Meeting</u>
7-28-04	<u>Allied Coordination Meeting</u>
8-17-04	<u>WPCP Odor Contingency Plan Meeting</u>
8-17-04	<u>Allied Odor Contingency Plan Meeting</u>
12-15-04	<u>Pond A-18 Comment Letter to City of San Jose</u>
5-02-06	<u>Odor Action Plan Update Meeting with WPCP</u>
5-02-06	<u>Odor Action Plan Update Meeting with Allied</u>

APPENDIX B
SIGNIFICANT ODOR INCIDENT CONTACT LIST*

BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD):

Vicki Dvorak, Air Quality Program Manager (phone: 415.749.4764)

Steven Chin, Supervising Air Quality Inspector (phone: 415.749.4751, cell: 415.760.6345)

Jay Patel, Air Quality Inspector (phone: 415.749.6561)

Bob Delarno, Air Quality Inspector (phone: 415.749.5154)

CITY OF SAN JOSE, LOCAL ENFORCEMENT AGENCY (LEA):

Dennis Ferrier, Supervising Environmental Inspector (phone: 408.277.8725, cell: 408.888.8625)

Jamie Matthews, Administrator (phone: 408.277.4703)

Marty Pardun, Environmental Inspector (phone: 408.277.8724)

Rich Archdeacon, Environmental Inspector (phone: 408.277.8723)

CITY OF MILPITAS:

Elizabeth Koo, Administrative Analyst (408.586.3353)

Kathleen Phalen, Utility Engineer (408.586.3345)

Greg Armendariz, Director of Public Works/City Engineer (408.586.3317)

ALLIED WASTE SERVICES (ALLIED):

Gil Cheso, General Manager (phone: 408.635-1406, cell: 408.595.9716)

Mark Buntjer, BFI Recyclery (phone: 408-945-2801, cell: 925.980.5236)

CALPINE LOS ESTEROS POWER PLANT:

Allison Bryan, Compliance Manager (phone: 408.635.1308)

CARGILL:

Sean Riley, Environmental Manager (phone: 510.790.8625)

SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT (WPCP):

Ken Rock, Operations Division Manager (phone: 408.945.5356)

Dale Ihrke, Deputy Director (phone: 408.945.5300)

Keith Creal, RSM Supervisor (phone: 408.945.5433)

ZANKER ROAD LANDFILL:

Scott Beall (phone: 408.263.2384)

*Bolded items indicate primary contact.