

ODOR CONTROL ADVISORY BOARD

Foundation for the Junior Blind

5300 Angeles Vista Blvd.

November 18, 2002

MEETING #4 MINUTES

Attendees: See attached attendance list

Meeting Minutes Recorded by: Hyginus O. Mmeje, City of Los Angeles,
Bureau of Sanitation, Wastewater Engineering
Services Division

Handouts: The following handouts were explained by various speakers:

1. Meeting Agenda
2. Minutes of October 28, 2002 meeting.
3. Scope of Work for Bowker & Associates, Inc.
4. Monthly Report No. 2 - Independent Review of Sewer Odor Control Program at the City of Los Angeles
5. City of Los Angeles Proposed Collection System Odor Control Facilities
6. Biotrickling Filter Facility diagram– Air Treatment Facilities Typical Sectional Plan
7. Biotrickling Filter Facility diagram
8. City of Los Angeles Collection System Air Treatment Facilities Schedule
9. East Central Interceptor Sewer Newsletter, Summer 2002

Introductory Issues

- Carol Tucker chaired the meeting.
- Member Introductions – Board Members introduced themselves and briefly described their backgrounds.
- Meeting agenda was adopted.
- Minutes of October 28, 2002 meeting was adopted. Before the minutes was adopted, Mr. Bassett raised questions about item 15 of the minutes. He wanted to know if all phases of the North Hollywood Interceptor Sewer (NHIS) were completed. He felt that the (NHIS) alignment is not being disclosed. In response, Adel indicated that all phases of the NHIS have been fully completed and that he would be glad to further discuss the NHIS alignment matter, at a later time with Mr. Bassett.
- Alternates - The following alternate members were identified:
 1. Tom Brown for Deborah Harris,
 2. Joseph Gardner for Milton Bassett, and
 3. John Saito for Carol Tucker or vice versa.

4. Alternate for Patrick McCullough was not announced, though the potential alternate was at the meeting.

First Presentation: Scope of Work for the Independent Review of Sewer Odor Control Program by Robert Bowker, Bowker & Associates, Inc

Robert Bowker of the Bowker & Associates, Inc. explained that the City hired him to evaluate City odor control efforts and compare it with that of other Cities. He related the extent of odor issue in the City of Angeles to the complexity of the Los Angeles sewer system.

He enumerated his many years of odor control related experience, which he said gave him the confidence and ability to carry out the duties for which is hired. According to him, both the Environmental Protection Agency and the City of Los Angeles evaluated his resume (and deemed him qualified) before he was hired.

He then presented his scope of work that includes the following seven tasks as contained in handout No. 3 above. The seven tasks are to assess the extent of sewer odor impacts, evaluate City's odor response and outreach program, conduct technical review of City's odor monitoring and control program, assess City's proposed odor monitoring and control program, meet with the Odor Advisory Board, prepare interim report by March 2003, and prepare final report by September 2004.

Second Presentation: Odor Control Facilities for the East Central Interceptor Sewer by Wayne Lawson, Bureau of Engineering City of Los Angeles (Handouts 5,6, and 7)

Wayne indicated that a total of about four odor treatment facilities will be located at the four-drop structures along the alignment of the North East Interceptor Sewer (NEIS) and the East Central Interceptor Sewer (ECIS) combined. He explained that as sewage from local sewers at the four drop structure locations drops down approximately 70 to 95 feet, into the deep tunneled NEIS/ECIS, the potential for release of odors is more. The released odors need to be treated there at the drop structure locations to mitigate odor impacts. He pointed out that NEIS has two drop structures at Humbolt near San Fernando Road and on Richmond Street, while the other two drop structures are on ECIS are at the intersections of Mission and Jesse, and at 23rd & San Pedro streets.

In addition to the four odor treatment facilities to be located at the four drop structure locations, three additional odor control facilities will be located in the Maze areas to control odor resulting from problems with sewer siphons located in the area. The three additional facilities will be the Jefferson/La Cienega Odor Control Facility, the NCOS Odor Control Facility and the NORS Junction Odor Control Facility.

He pointed out that the odor control facilities would utilize the biotrickling filter technology with a second stage process. The second stage will either be a biofilter or a

carbon scrubber. The second stage process will be necessary in order to also remove non Hydrogen Sulfide compounds that contribute to odor. He then explained in detail how this technology would work.

Second Presentation: Construction Schedule for the East Central Interceptor Sewer by Baron Miya, Bureau of Engineering City of Los Angeles

Baron indicated that the ECIS project was awarded in February 2001 and that at present, the tunneling work has progressed to approximately 30 percent completion. Final completion date for the ECIS construction is March 2004 as required by a Cease and Desist Order, and by which time sewage from existing sewers will be routed or diverted into ECIS. The 11-mile long ECIS alignment begins from an area near the Los Angeles River (at the intersection of Whittier Blvd and Mission Road), in the Downtown area, then goes West along Exposition Blvd., before turning South near La Cienega Blvd. He distributed handout No. 9 - East Central Interceptor Sewer Newsletter, Summer 2002.

Questions, Answers and Action Items: The following are some of the questions or issues, and the answers or comments, as well as action items that I was able to capture.

| | QUESTIONS/ISSUES | RESPONSES/COMMENTS | ACTION ITEMS |
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| 1. | Milton Bassett – Other than Council Districts 8, 9 & 10, do we have sewer odor complaints in other parts of the City, particularly, in the areas between the Valley Spring Lane at Forman and the Tillman Water Reclamation Plant and along the following three sewers: the North Outfall Sewer (NOS), the East Valley Relief Sewer (EVRS) and the Valley Outfall Relief Sewer (VORS)? | Brent Lorscheider – Majority of the odor complaints are in the Maze and South LA area. | City will verify odor complaints in other parts of the City of Los Angeles. |
| 2. | Terrence Montgomery – Asked Robert Bowker how he feels about his ability to provide independent review | Robert Bowker – I am very confident. | None |
| 3. | Samuel Hart – Do you (Robert Bowker) have a summary of all the odor complaints in the City of Los Angeles? | Robert Bowker – I have collected the odor complaints data and will be analyzing them. | None |
| 4. | Terrence Montgomery – Are | Robert Bowker – I will be able | None |

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| | you (Robert Bowker) limited to the review of City effort? Will you make recommendations? | to make recommendations | |
| 5. | Milton Bassett – Do you (Robert Bowker) favor preventive over corrective approach? | Robert Bowker – Preventive approach is preferred but can be very difficult to do in a system this large | None |
| 6. | Milton Bassett – If you take sludge from the Valley and not transport it through South Los Angeles, do you think it will help with the odor condition in this area? Milton Bassett – I believe the reclamation plants transport both primary and secondary sludge through the South Los Angeles Area. | Robert Bowker – In theory, it could have impact depending on the age or the freshness of the sewage as well as the amount of sludge involved. Recent experiences have shown that to be very minimal, especially if the volume is very small. Brent – Yes, that true. | None |
| 7. | Deborah Harris – They (the City of Los Angeles) was not wholly responsive to your initial requests for documents, what is the situation now? | Robert Bowker – I am now satisfied with the documents supplied. | None |
| 8. | Deborah Harris – Are you (Robert Bowker) evaluating the City’s data collection approach/method to see if it is sufficient to meet your needs? | Robert Bowker – Yes, I will. | None |
| 9. | Joseph Gardner – Will you (Robert Bowker) be looking at odor complaints in other parts of the City? | Robert Bowker – Yes, I will | None |
| 10. | Ted Lumpkin – Since you (Robert Bowker) work alone, do you think the City can overload you with information? | Robert Bowker – No, I don’t think that is the case. | None |
| 11. | Carol Tucker – Asked the attorneys to clarify why | Adel – He will look at all odor problems in the City but will | None |

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| | Robert Bowker will look at odor control issues throughout the City when he is hired due to the Santa Monica BayKeeper's lawsuit as a result of odor problems in South LA area, and the lawsuit to which South LA residents are now a party to. | focus in South LA area. The Odor Control Board in South Los Angeles is a pilot program | |
| 12. | Carol Tucker – The City of LA is the size of (Oregon?) and can on person (Robert Bowker) possibly provide effective service? Pointing at the two new persons in the room from another part of the area and who were having similar odor problems as in South LA, Carol asked if Mr. Bowker will also examine look into their situation. | Adel – Robert Bowker will look at City data and determine where services would need to be provided. Robert Bowker would then request for additional help, as necessary. Meanwhile the City will continue to provide services to all areas of the City without delay. | None |
| 13. | Carol Tucker – So Robert Bowker's primary role will be to review the information the City provides and not to be able to inspect the system? | Robert Bowker – My role is not to provide inspection services for the City. I am not to serve as an engineering consultant to the City or to point out what and where facilities are needed but I will review recommendations made to the City by other engineering consultants the City may hire. | None |
| 14. | Ted Lumpkin – As a one person, I don't see how you can possibly take care of issues related to ECIS and the whole City. | Robert Bowker – I am confident about handling issues with ECIS. My concern is to find out other areas where odor is a concern. | None |
| 15. | Milton Bassett – If they don't have odor in the Valley area, would you be concerned with the odor problems in South Los Angeles? | Robert Bowker –Odor results based on how the system is designed. It is a design issue. | None |
| 16. | Milton Bassett – The North Outfall Relief Sewer | Wayne Lawson – NORS siphons and the siphon airlines, | None |

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| | (NORS) was recently built in the early 1990s but it has odor problems. | were built with earlier standards and may be undersized. This situation may have resulted in the odor conditions. The siphon design standards have since been revised (about five years ago). | |
| 17. | Carol Tucker – Would you (Robert Bowker) assess engineering standards and engineering designs? | Robert Bowker – Yes | None |
| 18. | Patrick McCullough – Are you personally going to install and monitor odor? | Robert Bowker – No, that is not part of the scope of work but if there is a need for it, I will request the City to do the monitoring. However, I will be touring some of the odor spots. | None |
| 19. | Anthony Nicholas – Will you be here during the peak odor months of the summer? | Robert Bowker – Yes, I will be here in the summer. | None |
| 20. | Ted Lumpkin – In your relationship with the City, will you be asking the City to provide information when needed. | Robert Bowker – Yes. | None |
| 21. | Carol Tucker – So it is a gentleman’s agreement that you have with the City? | Lin Min Kong, Esq. – It is in his scope of services | None |
| 22. | (Victor Nahmias?) – What is the size (footprint) of the ECIS odor control facilities? | Wayne Lawson - 50’ x 165’ which depends on the available area. Depending on the location, the facility may be above or below ground or partially below ground. For example, At Jefferson and La Cienega, the facility will be partially above ground, at approximately 20 feet high and will be set back to allow for community use of the front area. The facility will blend in into the surrounding area. | None |
| 23. | Milton Bassett – Was any odor control facility installed in the North Hollywood | Adel – the NHIS did not have odor facilities because it was not as deep as ECIS and did | None |

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| | <p>Interceptor Sewer (NHIS)? The NHIS is a large 78 inch sewer and if no odor facility is installed in it, wouldn't that contradict previous information the City provided – that all such large sewers will have odor facilities?</p> | <p>not require drop structures. Generally, odor facilities are sited based on the project design.</p> | |
| 24. | <p>Joseph Gardner and Ted Lumpkin pointed out that the odor control facility stacks that will be located in the neighborhood would create public relations/outreach issues.</p> | <p>Their concerns were acknowledged by other meeting attendees</p> | None |
| 25. | <p>Patrick McCullough – Where have the biotrickling system been used and found effective? It seem like it's being tested here.</p> | <p>Robert Bowker – It is a new technology and that is why the City of Los Angeles is testing it before using it. The City of Los Angeles is using a vendor that has guaranteed the system. So far, it seems positive. The alternative would be chemical addition, which will involve storage of hazardous materials or chemicals in the neighborhoods.</p> | None |
| 26. | <p>Ted Lumpkin – Will the (installation of the) odor control facilities involve street excavation, traffic congestion, etc.</p> | <p>Wayne Lawson – No. The facilities will be installed at existing construction shaft locations. The exception will be the NCOS AFT where the air withdrawal line needs to be tied into an existing structure in Jefferson Blvd.</p> | None |
| 27. | <p>Are you aware of anywhere in the country, where odor control systems are installed in the neighborhoods, in the manner being proposed by the City of Los Angeles?</p> | <p>Robert Bowker – Most odor control systems that I know are used at the plants, not in the collection systems.</p> | None |
| 28. | <p>What are the completion dates for the odor control systems? What are the interim solutions? What are</p> | <p>Wayne Lawson – The completion is schedule for 2005/06. These facilities will not be completed before ECIS</p> | None |

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| | the solutions for the new odor locations? | comes on-line; therefore, interim odor control solutions or measures have to be addressed. In the past, the City has placed temporary odor facilities, at construction sites, as interim measures in controlling odor situations at the sites. In addition to on-going chemical additions, such interim measures have proven to be effective. For newly identified odor spots that are due to pressurized outfall system, the Bureau of Engineering is building new sewer(s) to address them. | |
| 29. | Patrick McCullough – If ECIS is supposed to solve the odor problems, why clean and rehabilitate the NOS? | Wayne Lawson – NOS is being cleaned to remove debris that could be causing odor and it is being rehabbed in order to continue to serve existing local sewers. Brent Lorscheider – The NOS rehabilitation is also needed for when it rains. | None |
| 30. | Victor Nahmias – How long does it take, on the average, for sewage to flow from the Valley to Hyperion Treatment Plant and at what speed? | Wayne Lawson – I have heard estimates of up to 18 hours or thereabout. Brent Lorscheider – The speed is about 5 miles per hour. | The City will verify estimate |
| 31. | Carol Tucker – What are the potential hazards of breaking into live sewers (during ECIS construction)? | Baron Miya – The main problem will be odor, which is attacked by the dual approach of chemical addition and mobile odor control facilities. Other risks are largely related to worker safety and that’s why the breaking into live sewers is planned during early morning hours (2:00 am), and during low flow conditions. | None |
| 32. | Patrick McCullough – What is the actual depth of ECIS at the intersection of Farmdale | Baron Miya – It will be about 30 feet. | None |

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| | Ave and Exposition Blvd and why has the ECIS team continuously told us, the community that it is 50 to 70 at that location when that appears not to be correct? | | |
| 33. | Greg Lee – What is the depth of Groundwater? | Baron Miya – In the Baldwin Hills area, the groundwater depth is about 90 to 100 feet. | None |
| 34. | Carol Tucker – How long will a “tie-in” of existing sewer into ECIS take and what happens if it takes longer, will the contractor be replaced if she/he is not doing the job well? | Baron Miya – It will take about two weeks. Brent Lorscheider – The contractor will be subjected to liquidated damages. | None |
| 35. | Patrick McCullough – Who do we contact if we have problems with construction? Carol Tucker – We need to have recourse other than just the hotline and the construction inspectors who almost always claim ignorant? | Baron Miya provided ECIS newsletters to the attendees, which is supposed to contain contact information. Also, he provided his business cards with his phone number and reiterated that the on-site construction inspectors are reliable contacts, which should be utilized. Additionally, Chris Harris and Brent Lorscheider provided their phone numbers, which are 213-749-3386 and 323-342-6236, respectively. | None |
| 36. | Patrick McCullough – expressed concern regarding possible settlement and wanted to know what his recourse would be if settlement results from the construction of ECIS, which he said is being performed by the same MTA contractor whose project experienced settlement in Hollywood. | Brent Lorscheider – extra precautions such as better boring equipment have been provided. The insurance company that insures it, to reduce liability, assigns approximately three safety engineers to ECIS construction. | None |
| 37. | An apparent resident of Del Rey community reported that he has observed large fumes in his area that he believes | Their concerns were noted | City will check into the reported condition. |

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| <p>are odorous and laden with air borne pathogens. He believes the fumes are associated with a wastewater pumping plant in his neighborhood. He suggested that the City test for airborne pathogens anywhere odor is reported.</p> | | |
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Next Meeting: The next meeting of the Odor Control Advisory Board will be held at the Foundation for the Junior Blind, 5300 Angeles Vista Blvd, on December 16, 2002. City will send out minutes and other meeting materials prior to the next meeting date and will confirm the next meeting location. It was decided by members that John Saito would chair the next meeting.

Adjournment: The meeting adjourned at about 9:00 pm.