WEST LAKE LANDFILL EARTH CITY MEETING
Monday, September 29, 2014
11:00 a.m. – 12:00 p.m.

ATTENDEES:
John Basilico, Senior Consultant, Earth City Board of Trustees (EPA contact)
Steve Schulte, Trustee/Chairman, Earth City Board of Trustees
Michael Reynoso, Trustee, Earth City Board of Trustees
Terry McCaffrey, Trustee, Earth City Board of Trustees
Brad Weston, Trustee, Earth City Board of Trustees
Toby Martin, Senior Vice President, Duke Realty Corporation*
Jon Hinds, Vice President, Duke Realty Corporation
Christy Lucido, Senior Property Manager, Duke Realty Corporation
Ryan Hodges, President, Earth City Levee District
Jerry Leigh, President, AMCI, Inc.*

*Duke Realty is the largest property owner within Earth City.
*AMCI Inc. is another property owner/developer within Earth City.

The attendees of this meeting represent senior leadership of Earth City; Duke Realty, and AMCI, Inc. Staff level employees are not anticipated to attend.

LOCATION: Frontenac Bank

The meeting will take place in a conference room within Frontenac Bank. There will be a conference phone available. We will open a conference line here in the Regional Office and Shawn Grindstaff will dial in from the meeting room's conference phone.

STAFF: Shawn Grindstaff will attend in person: 636-358-9154. Ben Washburn, Mary Peterson, Dan Gravatt, Jeff Field, and Lynn Slugantz will attend by phone.

TOPIC/S:
- Isolation Barrier
- Subsurface Smoldering Event
- EPA Progress
- Next Steps

FORMAT: 1 hour meeting with Q&A
This will be an opportunity for you to share with the Earth City Board of Trustees and major businesses/property owners the status of work being done at the West Lake Landfill site, discuss concerns and answer questions

BACKGROUND MATERIALS:
- Talking points – (p. 2)
- Questions submitted by Earth City Board of Trustees – (p. 5)
- Additional questions and answers – (p. 7)

Talking Points
West Lake Landfill Earth City Meeting Talking Points
Karl Brooks, Regional Administrator
September 29, 2014

1. Site Background

The West Lake Landfill Superfund Site is located on a 200-acre parcel about one mile north of the I-70 interchange within the city limits of Bridgeton, Mo., in northwestern St. Louis County. The Earth City Industrial Park is adjacent to the Site on the west. The Spanish Village residential subdivision is located less than one mile to the south and a trailer park is located ½ mile to the southeast.

Two areas of the Site were radiologically-contaminated in 1973 when soils mixed with leached barium sulfate residues were used as daily and intermediate cover in the landfill operations. The barium sulfate residues, containing traces of uranium, thorium, and their long-lived daughter products, were some of the uranium ore processing residues generated by Mallinckrodt at its downtown St. Louis plant and were initially stored by the Atomic Energy Commission (AEC) on a 21.7-acre tract of land in a then undeveloped area of north St. Louis County, now known as the St. Louis Airport Site (SLAPS). This area is part of the St. Louis Formerly Utilized Sites Remedial Action Program managed by the U.S. Army Corps of Engineers (COE). The radium and lead-bearing residues – known as K-65 residues – were stored in drums prior to being relocated to federal facilities in New York and Ohio.

In 1966 and 1967, the remaining residues from SLAPS were purchased by a private company for mineral recovery and placed in storage at a nearby facility on Latty Avenue under an AEC license. Most of the residues were shipped to Canon City, Colorado for reprocessing except for the leached barium sulfate residues, which were least valuable in terms of mineral content, i.e., most of the uranium and radium was removed in previous precipitation steps. Reportedly, 8,700 tons of leached barium sulfate residues were mixed with approximately 39,000 tons of soil and then transported to the Site. According to the landfill operator, the soil was used as cover for municipal refuse in routine landfill operations. The data collected during the Remedial Investigation (RI) are consistent with this account.

The quarry pits were used for permitted solid waste landfill operations beginning in 1979. In August 2005, the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) stopped receiving waste, pursuant to an agreement with the city of St. Louis to reduce the potential for birds to interfere with airport operations.

The Site is divided into two operable units (OUs), each with identifying areas. OU-1 consists of radiological areas 1 and 2 and the Buffer Zone/Crossroad Property; OU-2 consists of the other landfilled areas which did not receive any of the radiologically-contaminated soil:

OU-1:

• Radiological Area 1 –Approximately 10 acres are impacted by radionuclides. The radionuclides are in soil material that is intermixed with the overall landfill matrix consisting of municipal refuse. The total volume of radiologically-impacted materials is estimated at 33,500 cubic yards.

• Radiological Area 2 – This area was also part of the unregulated landfill operations conducted prior to 1974. Approximately 30 acres are impacted by radionuclides. The radionuclides are in soil material that is intermixed with the overall landfill matrix consisting mostly of construction and demolition debris. The total volume of radiologically-impacted materials is estimated at 302,000 cubic yards.

• Buffer Zone/Crossroad Property – This property, also known as the Ford Property, lies west of Radiological Area 2 and became surficially-contaminated when erosion of soil from the landfill berm resulted in the transport of radiologically-contaminated soils from Area 2 onto the adjacent property.

OU-2:

• Closed Demolition Landfill – This area is located on the southeast side of Radiological Area 2. This landfill received demolition debris. It received none of the radiologically-contaminated soil. It operated under a permit with the State and was closed in 1995.

• Inactive Sanitary Landfill – This landfill is located south of Radiological Area 2 and was part of the unregulated landfill operations conducted prior to 1974. The landfill contains sanitary wastes and a variety of other solid wastes and demolition debris. It received none of the radiologically-contaminated soil.

• Former Active Sanitary Landfill – This municipal solid waste landfill, known as the Bridgeton Landfill, is located on the south and east portions of the Site. The landfill is subject to a State permit, which was issued in 1974. This landfill received none of the radiologically-contaminated soil. Landfill operations ceased in 2005 and closure and post-closure activities are currently in progress by MDNR in accordance with Missouri Solid Waste rules and regulations.

2. **Ongoing Activities**
   a. Subsurface Smoldering Event
      i. There is a SSE occurring on the Bridgeton LF side of the site. This piece of the site is managed under state authority and the work is being conducted by Republic Services. Republic has an extensive network of gas extraction wells and temperature monitoring probes to monitor the event, and currently has plans to expand its monitoring network. EPA

maintains routine communication with MDNR to stay informed about the SSE. All current data suggest the SSE remains distant from the areas containing known RIM.

b. Isolation Barrier

i. EPA has been working with the PRPs to develop plans for a barrier that would serve to prevent the SSE from contacting areas known to contain RIM.

ii. This is an enormously complex project from an engineering standpoint.

iii. To assist in evaluating the complexities, advantages, and disadvantages of the various IB alternatives, EPA has enlisted the expertise of the USACE.

iv. The USACE has prepared an initial assessment report of the IB alternatives, and the PRPs have recently been tasked to produce more detailed plans by mid-October.

v. The more detailed plans will include bird mitigation plans to address the threat of potential bird strikes, given the proximity to the airport.

vi. The SLAA and FAA must approve these plans before additional work can proceed.

c. Off-Site Air Monitoring

i. EPA has established an air monitoring system in the offsite areas surrounding the WLL Site. This system includes 5 air monitoring stations that collect data for a variety of constituents. A local field office has been set up as the control center for the air monitoring network, which is staffed each week by EPA On-Scene Coordinators and contractors. The field office has recently been relocated due to planned construction activities at the Fire Station.

3. What's Next?

a. EPA will review the detailed plans for the IB alignment alternatives due mid-October.

b. EPA will review the Bird Mitigation plans also due mid-October, and will coordinate that review with the SLAA and FAA.

c. EPA will review the USGS report regarding groundwater data, and will communicate with the public regarding the conclusions.

d. EPA continues to progress toward selection of a final remedy. We expect to approve work plans very soon for the next stages of Feasibility Study work that must be completed to support a new Proposed Plan and Record of Decision.

4. Engagement Opportunities/Information Needs

a. EPA wants to keep stakeholders informed. There are a variety of ways to do that. How can we best accomplish that for the Earth City Business Park? How would you like to be kept informed?

i. Periodic meetings?

ii. Receive periodic Fact sheets?

iii. Receive WL Update via email?

b. Are there specific topics or subjects that would be especially helpful or beneficial for your constituents?

QUESTIONS SUBMITTED BY EARTH CITY BOARD OF TRUSTEES

1. Briefly explain EPA's role at West Lake Landfill as set forth in Superfund law.

   EPA's role at the West Lake Site is to act as the regulatory agency in charge of the remediation at the landfill. As such, EPA has the final and ultimate decision making authority and can direct the PRPs to take actions at the site as appropriate to protect human health and the environment.

2. Briefly explain the role of Republic Services and others in determining the final resolution of the landfill matter.

   The Potentially Responsible Parties, of which Republic Services is one, conduct site investigations and evaluations at the direction of EPA. The results of these, such as the currently on-going Supplemental Supplemental Feasibility Study (SSFS) are sent to EPA for careful review and approval. While these technical documents form the basis for decisions, the final decision of the site remedy remains with EPA.

3. Is cost the primary reason EPA favors keeping the radioactive material in place with the addition of safety improvements?

   Cost is only one of nine criteria the NCP requires EPA to consider.

   In the case of West Lake Landfill, other considerations include time to complete an excavation, safety of flight operations and the flying public at the airport, and the complexity of an excavation project due to the depth of the landfill.

4. Why after 40 years is there still an issue with the location of the radioactive material? Is EPA investigating all other landfill areas not previously investigated for radioactive material?

   The recent investigations into the location of the radiologically impacted material (RIM) have been focused on finding the best location to install the proposed isolation barrier.

5. Is there an area-wide health risk in removing and relocating the radioactive material?

   There is increased risk of human exposures associated with excavation and removal of the material. Also important is the attraction of birds to the newly excavated waste, which could pose a threat to flight operations and the safety of the flying public at the airport and the communities near the airport.

6. Briefly discuss the underground fire and construction of the barrier.

   The Missouri Attorney General ordered Republic Services to construct the isolation barrier in 2013. Work has been progressing with Republic Services on potential designs of the isolation barrier since the order. Additionally, EPA has entered into an Inter-Agency Agreement with the United States Army Corps of Engineers to assist with pre-construction and construction activities at the site. Some preconstruction activities have already begun; EPA has installed a robust air monitoring system around the landfill to establish baseline air quality levels and a wind-blown debris barrier has been installed to capture any debris generated during the excavation of the landfill to construct the barrier. The PRPs are currently preparing detailed barrier alignment alternatives which will be submitted to EPA and USACE for review. The St. Louis Airport Authority also has a keen interest in these plans and bird mitigation plans that must be approved. Once an alignment has been selected, planning for construction will begin in earnest. USACE estimates construction of the isolation barrier could start in approximately 18 months. The long planning period required reflects the scientific and engineering challenges of this project, for which there is no parallel in the United States.

ADDITIONAL QUESTIONS AND ANSWERS:

1. I spend more than 40 hours a week working here. Am I at risk?

   The site is protective of public health. EPA has no data to indicate there is any off-site exposure to contaminants at the West Lake site.

2. Is it possible that these buildings might be condemned as part of the final remediation? What about temporary closures during any digging for the isolation barrier?

   There is no reason to believe the radioactive materials buried deep underground at the landfill would requiring moving facilities or people. We will do everything we can to ensure the potentially responsible parties conduct any type of remediation efforts in a way to minimize impact on the businesses here. Typically, tenants are removed and buildings demolished only if the selected remedy cannot be completed with those buildings in place where they are. For example, if excavation is needed underneath a building, then that building would have to be removed. EPA does not anticipate this at the West Lake site.

   The PRP may offer voluntary relocation to nearby residents during construction of the isolation barrier due to nuisance odors resulting from excavated waste. However, EPA cannot compel the PRPs to offer this service.

3. The MDHSS study that just came said there are increased chance of getting cancer. What can you tell me about that?

   EPA Region 7 is reviewing the Coldwater Creek area cancer study conducted by the Missouri Department of Health and Senior Services. As EPA continues to exercise its authorities under the Superfund law, we will consider the MDHSS study as part of the body of scientific data. We know the data will be of concern to many. While MDHSS is seeking the involvement of the Agency for Toxic Substances and Disease Registry (ATSDR) and the Centers for Disease Control (CDC) for further studies, we want people to know that we are aggressively pursuing a final remedy at the West Lake Landfill site to ensure the protection of public health there.

   EPA appreciates the work of MDHSS in producing this report, and looks forward to continued cooperative efforts with MDHSS and other partners as we work to protect human health and the environment in and around St. Louis.

4. You've kind of told us that we're okay here and not at greater risk of cancer. If so, why are you telling the PRPs to spend all that money to do all this work. Isn't the site already safe?

The site is protective of public health to the neighborhoods in this area. However, it is not a sustainable proposition for the long term to leave the landfill as is. That leads to a science and engineering discussion on the best and most viable way to ensure protection of public health for decades to come. Additionally, after the selection and implementation of a final remedy at the site, EPA will continue to study and monitor the site to ensure that the remedy remains protective.

5. In 2008 you announced a decision to cap the landfill (ROD). Why did you decide to review that decision? Seems like the work would be done already if you had directed the PRPs to cap it.

   EPA decided to conduct additional site investigations after issuing the 2008 Record of Decision due to continued community concerns about the selected remedy, which was to install an engineered cap over the landfill with the implementation of institutional controls to prevent risk of exposures.