

**Italian American Sportsman's Club – 2275 Kuser Road, Hamilton Township, Mercer Co. New Jersey
(Block and Lot Map 231, Section 2575, Lot 47.01 and NJDEP PI No. 552707)**

Hamilton Township Council Meeting – October 15, 2013

Public Comment to The ELM Group RIRA/RAW dated May 24, 2013

Understanding:

The May 24, 2013 Remedial Investigation Report Addendum (RIRA)/Remedial Action Workplan (RAW) proposes an Unrestricted Area of Concern (AOC) Response Action Outcome (equivalent to a No Further Action or NFA) for soil via excavation, stabilization of Lead (Pb)-impacted soil as necessary and disposal of Pb and Polycyclic Aromatic Hydrocarbon (PAH)-impacted soil. Delineation will be achieved during post-excavation soil sampling and analysis. The IASC property is shown on the maps provided as Figure 1, Figure 2 and Dynamic Engineering's Sheet 1 of 1.

Comments:

1. From an LSRP perspective the highest priority in the performance of professional services is protection of public health and safety and the environment (SRRA C.58:10C-16) - LSRP Code of Ethics. For a residential development, an AOC-specific RAO is not as protective as a Site-Wide RAO.
 - There may be other AOCs that exist on this property that have gone undiscovered – a Preliminary Assessment as defined by NJDEP is the mechanism for evaluating the entire property.
 - The Township's Ordinance No. 04-011, 4-26-04 (Chapter 169) requiring a "Preliminary Site Investigation" and the Phase I Environmental Site Assessment that was previously conducted cannot be relied upon by NJDEP or the LSRP for purposes of a site-wide evaluation.
 - By not evaluating the entire property, there are potential environmental risks (AOCs that have not been discovered) that may be encountered during the construction phase of the project and over the period of time that the property is used for residential purposes (Dynamic Engineering Sheet 1 of 1).
 - AOCs that have been brought forward to the Township by residents from adjoining properties to this project include a small abandoned dump/landfill (Unlined?/Unregistered?) and soil that has been imported and dumped in piles on the property from swimming pool excavations at various unknown locations in the area. These AOCs have not been addressed as part of the Remedial Action Workplan.

✓ ***In my opinion, for the reasons listed above, an AOC-specific RAO is not an appropriate remedial action strategy for a residential redevelopment.***
2. Initial characterization and delineation of the site contaminants of concern was not performed pursuant to NJDEP recommended guidance.
 - Until recent submissions to NJDEP by the LSRP of record, only two trap shoot ranges were depicted when in fact three ranges operated on the property.
 - Per NJDEP's Kevin Schick (email dated July 15, 2011), the LSRP was directed to use the Interstate Technology and Regulatory Council (ITRC) technical and regulatory guidelines for Characterization and

Remediation of Soils at Closed Small Arms Firing Ranges and USEPA guidance relating to small arms firing ranges. The Township Council has also passed Resolution 11-297, dated July 19, 2011 requiring the Township Engineer to stringently follow best practices, such as the utilization of ITRC guidance, to properly characterize a property.

- Although Dynamic Earth/ELM references the ITRC guidance in their reports and correspondence, they did not implement that guidance with regard to targeting contaminants of concern (COCs) and the determination of sampling locations within the anticipated shot fall zones.
 - The initial soil characterization scope defaulted to the Township's "one sample per two acres" unbiased sampling frequency. However, in accordance with Hamilton Township Ordinance No. 04-011, 4-26-04 (Chapter 169), this "default characterization scope" should have only been considered if there were no known or suspected contaminated areas. The IASC has been the owner of record during the time period that the site was a trap-shooting area. As such, one would think that they knew of that pre-existing condition. For the IASC to have not stated that in the initial application process to the Township appears to be an act of gross negligence.
 - ITRC Guidance Section 2.6.3 "Sample Collection" (p. 15) recommends a composite sampling approach that, given the areas of both Maximum Shotfall Areas would involve the collection of a considerably larger number of characterization samples than has been collected to date (on the order of 1,680 subsamples and 336 composite samples for one depth interval in order to characterize these two areas).
 - Although requested by the Township and their consultant, Sadat, shotfall zones for the northern and eastern ranges were never accurately depicted on an aerial or detailed survey plan per the ITRC guidance, therefore the initial and subsequent delineation sample locations did not strictly conform to these zones (please refer to Figures 1 and 2).
3. The chosen analytical parameters for initial soil characterization and subsequent delineation do not conform to the ITRC guidance.
- The LSRP of record defaulted to the Township's analytical requirements for cases where no "additional contaminants are suspected to exist and/or identified in the preliminary site investigation"; specifically, analysis for lead, arsenic and a pesticide scan was conducted in addition to subsequent analysis of PAHs.
 - Shot Contaminants of Concern include the following: Lead, Arsenic, ***Antimony, Copper, Tin, Zinc and Iron*** (ITRC);
 - Clay Target Contaminants of Concern include the following: PAHs, Lead, Arsenic, ***Cadmium, Chromium, Copper, Nickel, Mercury, and Zinc*** (Lobb, 2006);
- ✓ ***Inorganic compounds in bold/italic above (Antimony, Copper, Tin, Zinc, Iron, Cadmium, Chromium Nickel and Mercury) have never been analyzed for at this site.***
4. The distribution of lead and PAHs in the eastern range shotfall zone appears strikingly minimal and, for the targetfall area (PAH impacts), geographically off-center or more northerly than what would be anticipated considering the location and alignment of the eastern range and trap house (Figure 2).

- The initial grid sampling conducted in the eastern range for lead largely evaluated the upper 0 to 0.5-foot interval. Characterization of lead impacts at this depth interval does not appear to represent full delineation when compared to the distribution of contaminants vertically at the northern range shotfall area.
- At many locations (12 sample locations) within the northern shotfall area, lead in soil above the NJDEP Soil Remediation Standards were reported at locations where the overlying surface sample (0-0.5') was reported as "non-detect" for lead
- In other locations (10 sample locations), lead increases in concentration with depth.

✓ ***Deeper characterization samples (down to at least 2.0-2.5') are required to fully evaluate and confirm soil quality in the eastern trap range shotfall area.***


5. Pb and PAHs have not been fully delineated in the RIRA/RAW Report but have been extrapolated to determine the approximate limits of the contaminants of concern; and as summarized above, metals commonly associated with firing ranges (ITRC)/(Lobb 2006) have not been targeted or sampled in soil.

✓ ***The approach for delineation is only acceptable per current NJDEP guidance provided that the post-excavation samples are collected at proper locations vertically and horizontally and for the appropriate constituents. This site has not been fully characterized for the full suite of contaminants associated with small arms firing ranges so delineation by extrapolation is not achievable.***

6. Lead and PAH impacts reported in soil at the northern trap range extend offsite and onto the adjoining Spadaccini property (parking lot). The source for the Pb and PAHs, and possibly other associated metals not sampled for, is clearly the Northern Trap Range operation as documented in the RAW Report.

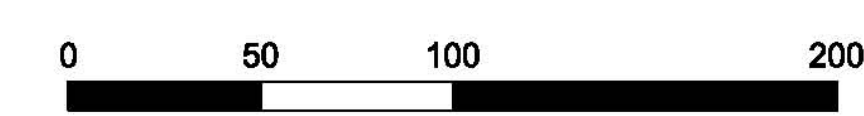
- The RAW text states that the remediation does not address the offsite parking lot, however, the "proposed excavation areas" (identified on Figures 12 and 13 of the RAW) include the offsite impacts at the Spadaccini parking lot.
- It is unclear if IASC's LSRP of Record complied with the Notification and Public Outreach provisions within the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) N.J.A.C. 7:26C-1.7(l), "...if contamination migrates off site in any environmental medium..."


✓ ***For time and cost efficiency, the entire impacted soil area on and offsite should be properly remediated concurrently and post-excavation samples should be analyzed for all contaminants of concern for small arms firing ranges per the ITRC guidance document.***


 Michael J. Meriney, P.G., LSRP



LEGEND:
- - - - - PROPERTY BOUNDARY
- - - - - SHOTFALL ZONE BOUNDARY
[Purple Shaded Area] MAXIMUM SHOTFALL ZONE



 EXCEL Environmental Resources, Inc. <i>Solving Environmental Problems & Creating Redevelopment Opportunities</i>		
PROJECT : ITALIAN AMERICAN SPORTSMAN CLUB HAMILTON TOWNSHIP, NEW JERSEY		
DESCRIPTION : FIGURE 1 GENERALIZED SITE PLAN SHOWING SHOTFALL ZONES		
DRAWN BY : RC	SCALE : 1"=50'	DATE : 10/11/13
CHECKED BY : MM	REVISION :	PROJECT # 13315

