



**Date:** June 23, 2009

**To:** Parks and Seattle Center Committee  
Councilmember Tom Rasmussen, Chair  
Councilmember Richard Conlin, Vice Chair  
Councilmember Jan Drago, Member  
Councilmember Tim Burgess, Alternate

**From:** Tim Gallagher, Superintendent, Parks and Recreation

**Subject:** Response to questions about testing and monitoring of synthetic turf playfields

---

Following are responses to the various questions you asked in your May 12, 2009 memo regarding testing and monitoring of synthetic turf.

1. A written description of the Parks Department's planned testing protocol for the new synthetic fields at Magnuson Park.

*RESPONSE: We are negotiating a final scope of work with a consultant to assist with the monitoring at Magnuson Park. We anticipate piggybacking on the monitoring work already planned for the wetlands and habitat project, which calls for certain types of water quality tests and monitoring of the various plants and animals. Those testing protocols were approved by the City Council in Ordinance 122318 (section 2) – "Monitoring Plan for Wetland Compensatory Mitigation for Magnuson Park Phase 2 Development" and is available at <http://www.seattle.gov/parks/proparks/projects/Magnuson.htm>.*

Such a description should include, but need not be limited to the following:

- A list of the contaminants that the Parks Department will test for;

*RESPONSE: We will test for temperature, dissolved oxygen, pH, fecal coliform, polycyclic aromatic hydrocarbons (PAH), zinc, copper, lead, and arsenic.*

- The specific locations where the testing will occur;

*RESPONSE: We will take water samples at four locations where water flows into the wetland system, including 1) a catch basin near the former officers' quarters; 2) the swale adjacent to the south parking lot; 3) the swale entrance along NE 65<sup>th</sup> Street; 4) and the outlet from the three synthetic turf fields at the north end of the site. We will take water samples from the wetlands system prior to it entering the outflow to Lake Washington. In addition to those locations required for wetland monitoring, we will take samples from a control location that is separate from the new wetland system at Frog Pond. Note that the specific locations may be altered as the final scope of work is completed with the consultant.*

- A protocol for comparative testing, which should include a plan for collecting and testing water and/or material samples from nearby roadways and other areas of the park that are not affected by runoff from the synthetic playfields. The completion of such comparative testing will improve our understanding of which pollutants are coming from the synthetic turf and which ones are being generated by other sources;

*RESPONSE: The testing locations listed above will result in comparative testing.*

- A schedule for all the synthetic turf-related testing that will be completed at the park.

*RESPONSE: Testing will occur monthly during the rainy season: October – March.*

2. A written summary of the specific field tests and monitoring activities that will be completed at any other synthetic playfields that are owned by the City and maintained by the Parks Department. Every field that will be subject to any testing or monitoring should be identified.

*RESPONSE: We are finalizing plans for Field Turf Tarkett to test our fields built from 2003 to 2008 (when lead containing compounds were used in red and yellow field marking pigments) for the presence of lead above the Consumer Product Safety Commission's recommended exposure limits. We do not yet have a schedule or testing protocol for this work. Field Turf Tarkett has indicated that they will replace any markings found above the limit. No further testing and monitoring of these fields is planned.*

*For Genessee Playfield (installed prior to 2003), we will engage a consultant to sample the field fibers and to submit those to a laboratory to test for lead content. The testing will replicate that undertaken in 2008 by the Consumer Product Safety Commission to ascertain lead content of synthetic turf relative to recognized exposure limits for lead. We do not yet have a schedule or testing protocol for this work.*

3. A written description of the Parks Department's plans to conduct additional testing after heavy rain falls and other significant storm events.

*RESPONSE: Seattle Parks and Recreation has been in discussion with an environmental engineering firm to develop a plan for testing stormwater runoff from the two fields that will be built at Lower Woodland Park this summer. We will undertake such a study should funding be available after the construction contract bids are opened for Lower Woodland, and we know if the contract is able to be awarded within the project budget. If we have funding to proceed a scope of work should be available in late summer.*

- A definition of the types of storm events that would trigger additional testing;

*RESPONSE: Typically a storm event where half an inch of rain falls in a 24-hour period would trigger this type of testing. The final parameters will be defined in the scope of work with the consultant.*

- An explanation of the type(s) of testing that would be conducted after a storm event;

*RESPONSE: The testing will focus on possible contaminants associated with the use of the crumb rubber infill materials in the synthetic turf fields. Laboratory tests for heavy metals (arsenic, copper, zinc, lead, etc) as well as other contaminants, possibly including polycyclic aromatic hydrocarbons (PAH) will be included.*

- The average number of storm events the Parks Department expects to conduct testing after on an annual basis.

*RESPONSE: Baseflow runoff and five to six storms would be sampled over the fall and winter of 2009-10.*

4. A revised copy of the Parks Department's Policy and Procedure on the use of synthetic turf. As was discussed at the April 14, 2009, P&SC meeting, the draft Policy and Procedure should be modified to include language regarding the Parks Department's planned testing and monitoring activities.

*RESPONSE: The current draft version of the policy is attached. The Board of Park Commissioners will not complete its review until June 28. We will finalize the Policy after that.*

5. A written description of how the design and construction of the City's synthetic playfields will help to control runoff and facilitate testing and monitoring efforts.

*RESPONSE: The fields are constructed with an under-drainage system designed to absorb rainwater and slowly release it into the storm drainage system. Below the field turf system (the “carpet” and the infill material which is 70% sand and 30% crumb rubber) is 2 inches of compacted three-quarter-inch minus fractured aggregate (small gravel); below that is six 6 inches of one-and-a-half inch fractured aggregate (slightly larger gravel); a liner of filter fabric; and finally the drainage lines. The outflow from the drainage lines provides a convenient point for sampling.*

In addition to the items listed above, please provide the following information to us as soon as it is available:

- The results of the planned “ghostwipe” testing at the Genessee playfield that is known to contain lead;

*RESPONSE: We will provide this information as soon as it is available.*

- A legally binding warranty from FieldTurf Tarkett that guarantees their product is lead-free;

*RESPONSE: As you are aware FieldTurf Tarkett has provided written guarantee that they will test and replace locations with levels of lead exceeding CPSC standards. We are working with them to follow up on that guarantee as soon as possible and will share those results as soon as they are available.*

- A workplan and proposed membership for a new advisory group that would review planned testing and monitoring activities and examine results;

*RESPONSE: We do not plan to establish a new advisory group. We will report our monitoring efforts to the Board of Park Commissioners and Sports Advisory Committee.*

- Documentation that indicates all planned field testing will be completed by neutral parties who maintain high professional standards.

*RESPONSE: We plan to engage consultants that are neutral and maintain high professional standards. I am not certain what type of documentation you are looking for.*

As field tests are completed and monitoring benchmarks are reached, the results should be provided to the City Council and the public in a timely manner.

*RESPONSE: We will be happy to do so.*