CITY OF KIRKLAND
123 FIFTH AVENUE, KIRKLAND, WASHINGTON 98033-6189
(425) 587-3225

DETERMINATION OF NONSIGNIFICANCE (DNS) .

CASE #: SEP11-00020 DATE ISSUED: 12/7/2011

DESCRIPTION OF PROPOSAL

Kirkland Youth Lacrosse and King County Parks is proposing to replace the existing grass scocer field with a new synthetic turf field. The project includes adding 8 parking stalls, field curbing around the new field, new asphalt pavement pathways, an underdrain system, and field lighting.

PROPONENT: **STEVE LYTLE**

LOCATION OF PROPOSAL: 8106 NE 138TH STREET

LEAD AGENCY IS THE CITY OF KIRKLAND

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21.030 (2) (c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request and can be found online at the following website:
http://www.kirklandwa.gov/depart/Planning/Development/BFHP_Renovation.htm

This DNS is issued under 197-11-340 (2); the lead agency will not act on this proposal for 14 days from the date above. Comments must be submitted by 5:00 p.m. 12/21/2011

Responsible official: _____ 12/5/11

Eric Shields, Director Date
Department of Planning and Community Development
425-587-3225

Address: City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033-6189

You may appeal this determination to the Planning Department at Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA 98033 no later than 5:00 p.m., December 21, 2011 by WRITTEN NOTICE OF APPEAL.

You should be prepared to make specific factual objections. Contact the Planning Department at 425-587-3225 to read or ask about the procedures for SEPA appeals.

Please reference case # SEP11-00020.

Publish in the Seattle Times (date): 12/8/2011

Distribute this form with a copy of the checklist to the following:

X Environmental Review Section, Department of Ecology,
P.O. Box 47703, Olympia, WA 98504-7703

X Department of Fish and Wildlife (for streams and wetlands - with drawings)
North Lake Washington Tributaries Area Habitat Biologist
16018 Mill Creek Boulevard, Mill Creek, WA 98012

_____ Department of Fish and Wildlife (for shorelines and Lake Wa. - with drawings)
Lake Washington Tributaries Area Habitat Biologist
C/O DOE
3190 160th Avenue SE, Bellevue, WA 98008

_____ Seattle District, U.S. Army Corps of Engineers,
P.O. Box C-3755
Seattle, WA 98124

_____ Attn: Lynn Best, Acting Director, Environmental Division, Seattle City Light
700 5th Avenue, Suite 3316
P.O. Box 34023
Seattle, WA 98125-4023

X Attn: Environmental Reviewer
Muckleshoot Indian Tribe Fisheries Division
39015 172nd Avenue SE
Auburn, WA 98092

AND

Attn: Preservation Program
Muckleshoot Indian Tribe
39015 172nd Avenue SE
Auburn, WA 98092

_____ Northshore Utility District
P.O. Box 82489, Kenmore, WA 98028-0489

_____ Ken Howe, PE, General Manager
Woodinville Water District
17238 NE Woodinville-Duvall Rd.
PO Box 1390, Woodinville, WA 98072-1390

_____ Shirley Marroquin
Environmental Planning Supervisor
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-TR-0431, Seattle, WA 98104-3856

_____ Gary Kriedt
King County Metro Transit Environmental Planning
201 South Jackson Street, MS KSC TR-0431
Seattle, WA 98104-3856

_____ Director of Facilities
Lake Washington School District No. 414
P.O. Box 97039
Redmond, WA 98073-9739

_____ Budget Manager
Lake Washington School District No. 414
P.O. Box 97039
Redmond, WA 98073-9739

_____ John Sutherland, Developer Services
Washington State Department of Transportation
15700 Dayton Ave. N. MS 240
P.O. Box 330310, Seattle, WA 98133-9710

X Jan McGruder, Executive Director
East Lake Washington Audubon Society
PO Box 3115, Kirkland, WA 98083

_____ Director of Planning
Cascade Water Alliance
11400 SE 8th Street, Suite 440
Bellevue, WA 98004

X
----- Parties of Record for File SEP11-00020

X
----- T.J. Davis
King County Parks
201 South Jackson Street Rm 700
Mailstop KSC-NR-0700
Seattle, WA 98104-3855

Applicant / Agent: _____

cc: Case # SEP11-00020
Distributed to agencies along with a copy of the checklist. (see attached).

Distributed By: _____ Date: 12/7/2011

SEPA_C_A, rev: 12/1/2011

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.587.3225
www.kirklandwa.gov

MEMORANDUM

To: Eric R. Shields, AICP, Planning Director

From: Jon Regala, Senior Planner

Date: December 1, 2011

Subject: **SEPA ENVIRONMENTAL DETERMINATION**
BIG FINN HILL PARK – FIELD CONVERSION
FILE SEP11-00020

I. BACKGROUND

Big Finn Hill Park is located at 8106 NE 138th Street (see Attachment 1). The entire park contains approximately 218 acres and remains largely undeveloped. The developed portion of the park contains four baseball/softball fields, a picnic/play area, a grass soccer field, and surface parking stalls (see Attachment 2). An unclassified wetland is located south of the existing soccer field based on King County Geographic Information System (GIS) data. Denny Creek is located approximately 500 feet southeast of the soccer field and flows generally southwest approximately 2.5 miles into Lake Washington. Attachment 3 contains a map showing these environmental features.

Kirkland Youth Lacrosse (KYL) and King County Parks are proposing to convert the existing grass soccer field into a synthetic turf field to accommodate both soccer and lacrosse. The project also includes the following:

- Construction of paved field access pathways and the addition of eight parking stalls
- Construction of field curbing, fencing (including gates), bleachers, and netting
- Construction of a field under drainage which includes a large sand filter for water quality treatment
- Installation of field lights
- Identify the future location of a scorekeepers hut and field house
- Stabilization of construction areas

On June 1, 2011, the unincorporated areas north of Kirkland which includes Big Finn Hill Park were incorporated into Kirkland. Prior to the annexation date, KYL submitted a grading permit and SEPA application materials for the project to King County for review. According to the Annexation Interlocal Agreement (ILA) and subsequent Memorandum of Understanding between King County and the City of Kirkland, it was agreed that review of the grading permit would be conducted by King County Department of Development and Environmental Services (DDES) based on the County's regulations while the environmental review will be completed and issued by the City of Kirkland. The City of Kirkland would be responsible for issuing the grading permit and subsequent

inspections. King County would continue to own and maintain the park and associated activities.

With regard to SEPA, King County Department of Parks & Recreation was the initial lead agency for the environmental determination for the project and issued a preliminary SEPA Determination of Non-Significance as part of their initial review of the project. The public comment period was from June 30, 2011 through July 21, 2011. King County Parks & Recreation received public comment and responded to the comments and/or questions. Pursuant to the ILA, the City has now assumed lead agency for the environmental determination.

I have had an opportunity to visit the site and reviewed the attached documents.

- Environmental Checklist (see Attachment 4)
- Project Plans dated October 21, 2011(see Attachment 5)
- King County responses to public comment (see Attachment 6)
- Lighting information (see Attachment 7)
- Traffic Study prepared by Transportation Solutions Inc. dated August 30, 2011 (see Attachment 8)
- Traffic Impact Analysis Memorandum prepared by Thang Nguyen, City of Kirkland Transportation Engineer dated November 2, 2011 (see Attachment 9)
- Synthetic field studies were submitted by the applicant that address health concerns regarding synthetic fields and the use of crumb-rubber. Due to the large number of pages, the studies are available on the City of Kirkland website at the following web address:

  http://www.kirklandwa.gov/depart/Planning/Development/BFHP_Renovation.htm

  The studies posted on the City of Kirkland website are:

  - *An Assessment of Chemical Leaching, Releases to Air and Temperature at Crumb-Rubber Infilled Synthetic Turf Fields.* New York State Department of Environmental Conservation. New York State Department of Health. May 2009
  - *Chemicals and Particulates in air above the new generation of artificial turf playing fields, and artificial turf as a risk factor for infection by methicillin-resistant Staphylococcus aureus (MRSA) Literature review and data gap identification.* Office of Environmental Health Hazard Assessment. California Environmental Protection Agency. July 2009.
  - *Synthetic Turf Safety Proven with Science.* FieldTurf. FieldTurf website brochure.
  - *A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds.* United States Environmental Protection Agency. November 2009.
  - *Assessment of Environmental, Health, and Human Safety Concerns Related to the Synthetic Turf Surface at Maple Park in Ridgewood, NJ.* Ridgewood Environmental Advisory Committee. January – October 2009.

- *A Survey of Microbial Populations in Infilled Synthetic Turf Fields.* Andrew S. McNitt, Ph.D. Soil Science and Dianne Petrunak, M.S. Plant Pathology. Penn State. June 2006.
- *Review of the Impacts of Crumb Rubber in Artificial Turf Applications.* Rachel Simon. University of California Berkeley. February 2010.
- *Effectiveness of FieldTurf Artificial Turf for Management of Stormwater.* AKRF, Inc. and D.S. Thaler and Associates, LLC. June 2011.

II. ANALYSIS

Below is my analysis of key environmental issues. Since the proposal involves converting an existing soccer field, my review focuses on potential environmental impacts associated with the new lighting, noise associated with the extended hours, parking/traffic, and the composition of the synthetic turf material. These same issues were also brought up by concerned citizens during the public comment period associated with the County's preliminary SEPA determination. No expansion to the existing field is proposed.

A. LIGHTING

The applicant is proposing to light the new turf field to allow for night use of the field. The park would close at 11 p.m. Lighting is proposed on 4 separate poles at a height of 75 feet. The poles are positioned along the perimeter of the field in order to provide adequate lighting of the sports field. The proposed light system is Musco's Light Structure Green (see Attachment 7). This lighting system is designed to help direct and shield light to reduce spill and glare onto neighboring residential property.

Attachment 7 also contains a lighting photometric detail that calculates the amount of light (measured in foot candles) as measured 3 feet above the ground at various locations in and around the field. The calculations assume a flat site without obstructions such as trees. For reference, the following chart provides an example of outdoor light levels in terms of foot candles.

Condition	Illumination (foot candles)
Sunlight	10,000
Full Daylight	1,000
Overcast Day	100
Very Dark Day	10
Twilight	1
Deep Twilight	.1
Full Moon	.01
Quarter Moon	.001
Starlight	.0001
Overcast Night	.00001
Source: www.EngineeringToolBox.com	

The Illumination Summary titled 'Spill @ Juanita Drive' in Attachment 7 calculates that some field light spill (0.01 foot candles) may fall along certain portions of

Juanita Drive when calculated to the hundredth decimal point. Since the calculations do not consider topography or the existing trees, it is very unlikely that the field lights would actually impact Juanita Drive.

The Illumination Summary titled 'Blanket' photometric calculations prepared by Musco in Attachment 7 photometric study shows that light spill approaches near darkness approximately 208 feet from the field at the furthest distance. Foot candle levels provided were rounded to the nearest tenth. The home closest to the field is located at 13433 78th Place NE and is approximately 425 feet southeast of the existing field. The next closest home is approximately 440 feet southwest of the field located at 13452 Juanita Drive NE. The closest home to the north is approximately 800 feet away. Attachment 10 contains a map prepared by me which shows the extent of lighting relative to adjoining properties based on the data provided. Based on this information, there should not be light spill from the field lights onto adjoining property or into neighboring homes.

Although the lights atop the light standards may still be visible at night through the existing trees, the following site characteristics greatly minimize any adverse impacts created by the proposed lighting:

- The large distance between the lights and adjoining residential properties
- The existing mature trees act as a natural buffer
- The combination of the topography change and height of trees reduce sight lines to the proposed lighting
- The orientation of the lights and light shielding design

B. PARKING/TRAFFIC

The proposed soccer field conversion is occurring at the west soccer field at the north end of Big Finn Hill Park east of Juanita Drive (see Attachment 2). Access to this portion of the park is from NE 138th Street which is connected to Juanita Drive NE to the west. Although NE 138th Street extends to the east end of the park to 84th Avenue NE, access between the two areas is restricted due to a gated fire lane.

Near the soccer field, the park also contains a softball field, a children's play area, and two separate surface parking lots containing a total of 63 parking stalls. The lower parking lot near the soccer field currently contains 21 stalls with 8 parking stalls being added with the proposed project. No changes are proposed to the upper parking lot near the children's play area.

The applicant submitted a parking and traffic study prepared by TSI Transportation Solutions, Inc. (see Attachment 8). The study concludes that while yearly field use will be increased, the field conversion will not create additional parking demand nor will traffic volumes rise due to the increased use of the field. Currently, peak use of the western portion of the park occurs during children's soccer practice when four teams occupy the soccer field and the baseball field is in use. According to King County, there have been no problems with parking or traffic during this peak usage of the park. With the new lacrosse use, only two teams would practice at any time. It is anticipated that the traffic volumes and parking demand should remain similar

to existing conditions since the size of the field is not being expanded and therefore capacity or users of the soccer field would not increase. Should problems arise with parking and/or traffic, it is King County Park's policy to make adjustments in scheduling to alleviate such problems.

The City's Transportation Engineer has reviewed the parking and traffic study provided by the applicant and does not recommend that SEPA mitigating measures for parking and traffic impacts be required due to the minor scope of the proposed renovations (see Attachment 9).

C. NOISE

Big Finn Hill Park generates noise associated with community recreational sports leagues. This includes noise from the sport participants, crowd noise, and noise from whistles during practices and games. Currently, the park closes at dusk, which during the summer months, could mean the park is open as late as 10:00 p.m.

The proposal to convert the field also includes the installation of new field lights along the soccer field to allow soccer uses to continue during the darker months and also later into the night. Lacrosse is also being proposed as a new sport that would utilize the new turf field. Traditionally, lacrosse uses air horns to signal substitutions.

According to King County Parks, air horns and amplified sounds will not be allowed at the park and will be enforced through use agreements between King County Parks and the sports leagues. Violation of the use agreement would result in the loss of use privileges for the violating sports league. Generally, King County has not had a problem with sports leagues abiding by the agreed upon use agreements. Whistles would still be allowed.

Since the park is currently open until 10:00 p.m. during the summer months, the new lighting system would allow use of the park until 10:00 p.m. during the darker months. The noise impacts should be the same as during the summer months. However, King County Parks is proposing that the sports field be open until 11:00 p.m. Since noise impacts from 10:00 p.m. and 11:00 p.m. would not have been reviewed as part of any previous County review, staff has identified this topic as potentially having an adverse impact to neighboring residential properties.

The applicant did not submit a noise study with the SEPA checklist, however I was able to review Chapter 3.6 - Noise - Final Supplemental Environmental Impact Statement (FSEIS) for Sand Point Magnuson Park issued July 12, 2002 (see Attachment 11). In the noise study, sound level measurements were taken at various sporting events to understand the types of noise associated with the different events. I found this information to be relevant with the proposal at Big Finn Hill Park.

Briefly, noise is commonly measured on a weighted logarithmic scale (A-scale) in decibels (dBA). Many jurisdictions' regulations that limit noise levels use this scale.

The measurements are reported in a variety of ways, each having a specific meaning. The following were used in staff's analysis:

- L_{max} is the maximum sound level recorded during the measurement period.
- L_{25} is the sound level exceeded 25 percent of a period of time.

The table below was taken from page 3-76 of the Magnuson Park FSEIS.

Table 3.6-4 Athletic Source Noise Events at 100 feet (dBA)		
Event	L_{25}	L_{max}
Youth Baseball Practice	52	68
Youth Baseball Game	52	75
Adult Baseball/Softball Game	56	79
Youth Soccer/Ultimate Frisbee Practice	55	75
Youth Soccer/Ultimate Frisbee Game	55	75
Adult Soccer Game	48	69

King County Code requires that the maximum sound level for a residential district source (the park is located within a residential district) to another residential district source (single-family homes) is 55 dBA. After 10:00 p.m., this limitation is reduced by 10 dBA therefore reducing the maximum limit to 45 dBA. Below is the formula used to determine sound levels at a desired distance if certain factors are known.

$$X_2 = X_1 - 20*LOG\,(Y_2/Y_1)$$

X_1 = sound level at known reference distance
X_2 = sound level at desired distance
Y_1 = distance where X_1 was measured
Y_2 = distance for which sound level X_2 is being calculated

At 10:00 p.m., Big Finn Hill Park will be used by adults. Therefore the Magnuson Park data for adult soccer games is being used as part of staff's analysis. The results of the calculations below are very conservative in nature and do not include other factors which would reduce the sound levels i.e. lower crowd attendance, topography, vegetation, and sound absorption by the atmosphere and the ground.

Calculated Noise Levels		
Closest Distance to Residential Property Lines (approximate distance measured from the perimeter of soccer field at centerline)	Predicted Noise Level with source of 48 dBA (L_{25})	Predicted Noise Level with source of 69 dBA (L_{max})
354 feet to southwest	37.02	58.02
486 feet to southeast	34.27	55.27
772 feet to north	30.25	51.25

My analysis shows that for the majority of the soccer game duration, the generated noise levels are below the County noise standard of 45 dBA after 10:00 p.m. At certain instances, the calculations show that noise levels peak at around 58 dBA and occur intermittently during the games. For comparison, normal human conversation heard at approximately 3 feet away generates a noise level which ranges anywhere from 40 to 60 dBA. The peak noise level for the field is likely to be even lower given that factors that reduce sound were not included in the calculation. Therefore, staff has not identified any significant impacts regarding this topic that would warrant any project mitigation. However, King County should confirm compliance with County noise regulations as part of their grading permit process.

D. TREES

One tree is proposed to be removed near the proposed improvements to the parking lot and access pathway northeast of the field. Two additional trees located southeast of the field may be removed due to their close proximity to the proposed sand filter drainage system. Grading in the area of the trees could affect the trees' roots. The applicant is proposing to replace any trees that are removed with similar type trees. All other trees on the subject property are either beyond the limits of disturbance or will have tree protection fencing during construction to help ensure long term viability of the trees.

E. WETLAND IMPACTS

An unclassified wetland is located south of the existing soccer field based on King County Geographic Information System (GIS) data. If hydrology of the wetland is increased, due to additional runoff from the new field, a concern would be an increased water level which could negatively affect wetland plant life.

The proposed drainage for the project includes installation of a field underdrain system that will collect and hold water beneath the soccer/lacrosse field. The water will then be control released into and treated by a water quality sand filter located east of the field. This system will detain water and help prevent flooding downstream. In addition, an existing storm drain serves the parking lot and driveway north of the field. Water from this area flows into an existing pipe under the field to a catch basin located at the southwest corner of the field. From the catch basin, water flows into a culvert and into an existing bioswale. The bioswale is separated by four check damns with each section heavily vegetated.

Runoff collected from both the field/sand filter (east of the field) and the bioswale (south of the field) drains to the southeast to an existing drainage pond where the water is eventually released, at a regulated rate, through a level spreader in the woods east of the existing pond into Denny Creek then eventually into Lake Washington.

Because the new drainage system design for the new field diverts all runoff to the southeast into the sand filter system and detention pond, water should not enter the wetland to the south. King County DDES should however confirm compliance of the project in respect to the County's wetland regulations.

F. SYNTHETIC TURF

The applicant is proposing to use FieldTurf for the artificial turf surface at Big Finn Hill Park. FieldTurf uses monofilament slit-film fibers that look like blades of grass. The fibers are stitched into a backing material which is then covered with a special coating to further secure the fibers into the backing while maintaining permeability. The field is then filled with large amounts of silica sand and cryogenic rubber (crumb rubber). Cryogenic rubber or crumb rubber is made from recycled tires. The tires are cryogenically frozen then shattered into smooth clean cut granules for use in sports fields. The product chosen by the applicant does not contain lead.

I have reviewed the various studies submitted by the applicant in regards to the crumb rubber used in the proposed synthetic field. My analysis is found below.

Toxins

Use of synthetic turf eliminates the need for fertilizers, herbicides, pesticides, and water associated with the maintenance of grass fields. However, with synthetic fields, there have been environmental and health questions and concerns regarding the use of crumb rubber since it is made from old recycled tires. Recycled tires contain numerous chemicals including zinc and sulfur, and oils that contain polycyclic aromatic hydrocarbons (PAHs) and volatile organic chemicals (VOCs). The applicant has submitted various studies that provide background information regarding the environmental and health concerns regarding synthetic turf fields (see studies provided by the applicant at

http://www.kirklandwa.gov/depart/Planning/Development/BFHP_Renovation.htm)

Below is a chart from the New York Department of Health which summarizes findings based on a number of studies.

Summary of Information for Crumb-Rubber Infilled Synthetic Turf Athletic Fields

Health Concern	Finding
Heat stress	Surface temperatures on crumb-rubber infilled synthetic turf fields can reach levels of discomfort and may contribute to heat stress. This warrants consideration when making decisions about installing and using a synthetic turf field. While watering synthetic turf may briefly reduce surface temperatures, a number of factors may influence its effectiveness. People using these fields should be advised to remain hydrated and to seek relief from the heat in shaded areas.
Injury	Overall, studies have found no consistent differences in injury rates between natural and crumb-rubber infilled synthetic turf.
Infection	Skin cuts and abrasions that may result from contact with athletic fields (natural and synthetic turf) are susceptible to infection. Athletes and others developing skin abrasions should clean the wounds and seek prompt medical attention. Athletes should avoid sharing equipment, razors, towels, soap and other objects with others, because these items can spread germs.
Latex allergy	At the present time, NYSDOH is unaware of any occurrences of latex allergy resulting from contact with crumb rubber or synthetic turf fields.
Chemical exposures	Based on the available information, chemical exposures from crumb rubber in synthetic turf do not pose a public health hazard.
Source: New York Department of Health Fact Sheet - http://www.health.ny.gov/environmental/outdoors/synthetic_turf/crumb-rubber_infilled/fact_sheet.htm	

Heat

Studies provided by the applicant show that synthetic field surfaces are hotter than natural grass fields by as much as 30° F on average while the air above the field was found to only increase 3° F on average. In contrast, tennis court surfaces were measured to be 44° F hotter than the natural grass field. Weather in the Seattle area averages in the high 70°'s during the summer months. Based on the information provided, it appears that health concerns related to sporting events on hot days revolve around more about staying hydrated and seeking shade as needed and little to do with the temperature of the field surface. According to the applicant, it is the sports' leagues policy to cancel events if the weather becomes too hot for play.

Drainage

The water quality sand filter required for the project will provide *enhanced* basic treatment. This will result in a more stringent water quality treatment than typically required for standard projects. The treatment includes basic treatment (80% of suspended solids in the water) as well as removal of metals including a 50% reduction of total zinc. In addition, runoff from the parking lot will pass through a vegetated bioswale south of the field which contains several check dams. This will also act as a filter for any crumb rubber that makes it way from the parking lot.

According to the engineers involved with the project (applicant and City), it is highly unlikely that crumb rubber will make its way into Denny Creek whether the crumb rubber is from the field or deposited in the parking lot. This is due to the type of filtering and/or settling of the crumb rubber that would occur given the design of the drainage systems and turf backing being used. Based on the studies provided, chemicals that may leach into water from the crumb rubber had no significant impact to ground water quality.

III. CONCLUSION

It will be necessary to further analyze certain aspects of the applicant's proposal to determine if the project complies with all the applicable County codes and policies. That analysis is most appropriately addressed within the grading permit review to be conducted by King County Department of Development and Environmental Services (DDES). In contrast, State law specifies that this environmental review under the State Environmental Policy Act (SEPA) is to focus only on potential significant impacts to the environment that could not be adequately mitigated through the applicable County regulations.[1] Based on my review of all available information and adopted policies of the City, I am recommending that a Determination of Nonsignificance (DNS) be issued.

[1]ESHB 1724, adopted April 23, 1995

SEPA ATTACHMENTS

1. Vicinity Map
2. Aerial
3. Sensitive Areas Map
4. Environmental Checklist
5. Project Plans
6. King County Response to Comments
7. Lighting Information
8. Traffic Study prepared by Transportation Solutions dated August 30, 2011
9. TIA Memorandum prepared by Thang Nguyen dated November 2, 2011
10. Aerial – Lighting Info
11. FSEIS on Noise for Sand Point Magnuson Park issued July 12, 2002

REVIEW BY RESPONSIBLE OFFICIAL:

I concur ☑

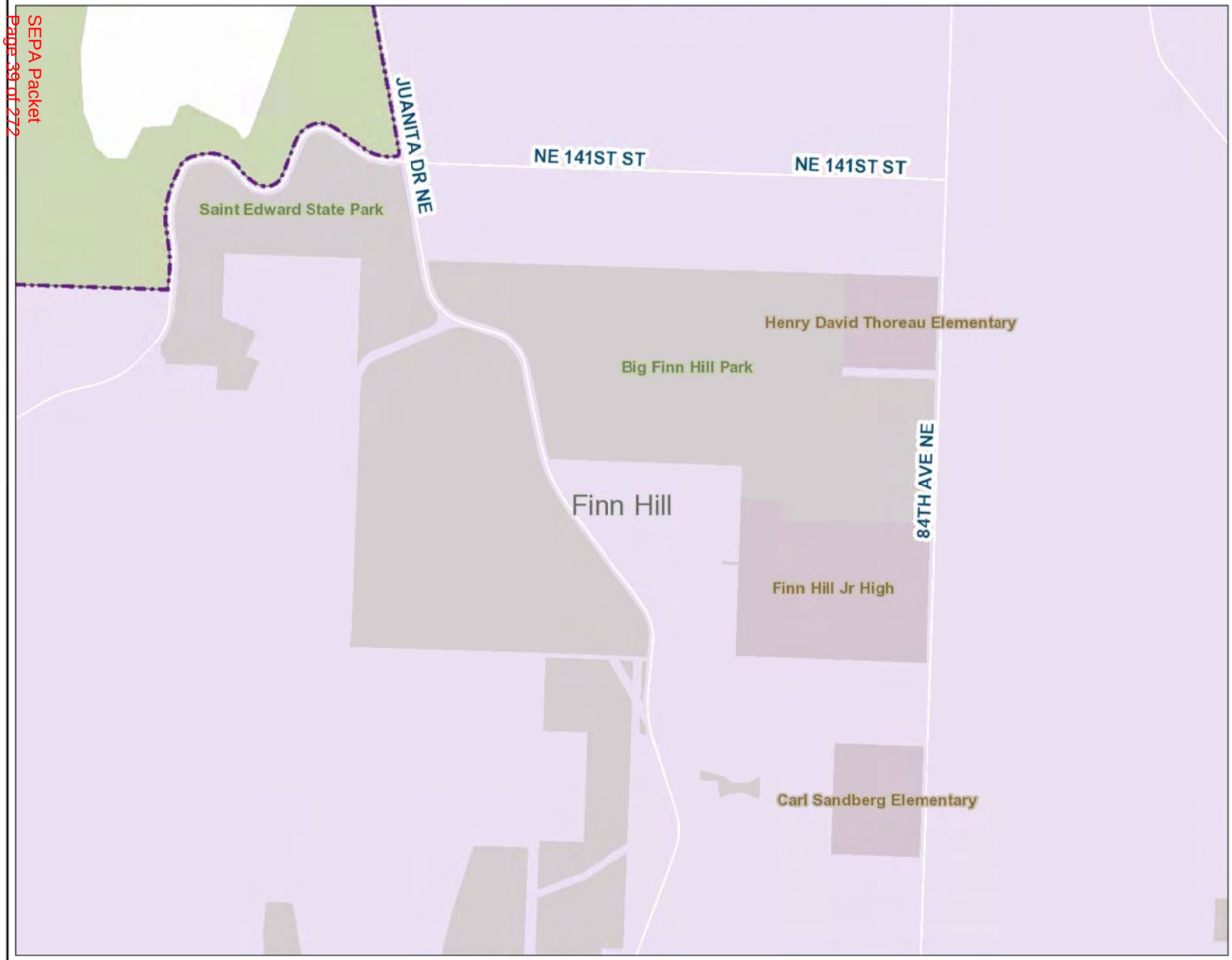
I do not concur ☐

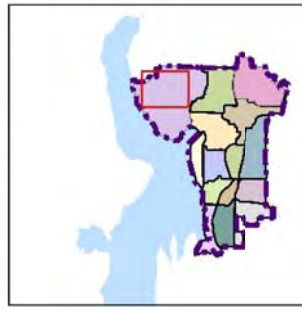
Comments:

Eric R. Shields, AICP
Planning Director

12/5/11
Date

GIS MAPPING PORTAL ~ City of Kirkland, Washington ~ Department of Information Technology





Legend

- City Limits
- Major Streets
- Neighborhood
  - Bridle Trails
  - Central Houghton
  - Everest
  - Finn Hill
  - Highlands
  - Juanita
  - Kingsgate
  - Lakeview
  - Market
  - Moss Bay
  - Norkirk
  - North Juanita
  - North Rose Hill
  - South Juanita
  - South Rose Hill
  - Totem Lake
- Parks
- Schools

1: 11,760

0.4 0 0.19 0.37 Miles

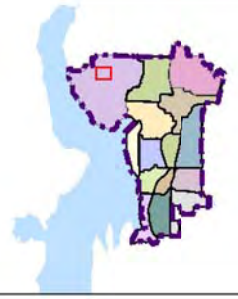
NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet

Notes

Big Finn Hill Park - Vicinity Map

ENCLOSURE 3
BFHP SEPA APPEAL
ATTACHMENT 1
FILE SEP11-00020

GIS MAPPING PORTAL ~ City of Kirkland, Washington ~ Department of Information Technology



Legend

- City Limits
- Grid
- QQ Grid
- Streets
- Parcels
- Buildings
- z_Image09
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1: 3,791

0.1 0 0.06 0.12 Miles

NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet

No warranties of any sort, including but not limited to accuracy, fitness or merchantability, accompany this product.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

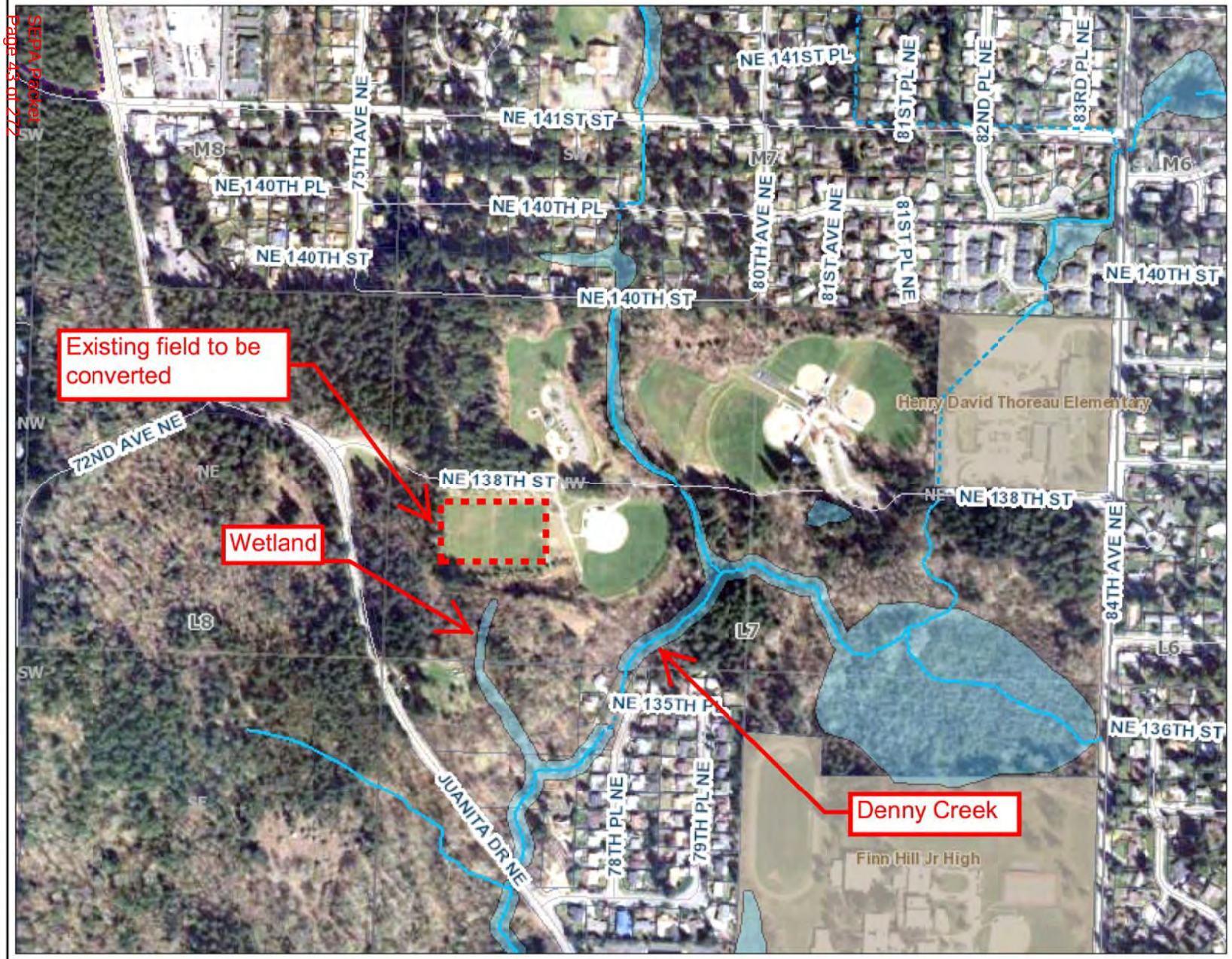
Notes

Big Finn Hill Park - Aerial

ENCLOSURE 3
BFHP SEPA APPEAL

ATTACHMENT 2
FILE SEP11-00020

GIS MAPPING PORTAL ~ City of Kirkland, Washington ~ Department of Information Technology



Legend

- Streams
  - Open
  - Pipe
- Bldg Concern Area
  - Exposure C zone
  - Methane
- Floodplain
- Landslide
  - H
  - M
- Wetlands
- City Limits
- Grid
- QQ Grid
- Streets
- Parcels
- Schools
- z_Image09
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1:6,282

0.2 0 0.10 0.20 Miles

NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet

Notes

Environment Layer

ENCLOSURE 3
BFHP SEPA APPEAL
ATTACHMENT 3
SEP11-00020

King County
Department of Development and Environmental Services
900 Oakesdale Avenue Southwest
Renton, WA 98057-5212
206-296-6600 TTY 206-296-7217

STATE ENVIRONMENTAL POLICY ACT (SEPA) CHECKLIST

For alternate formats, call 206-296-6600.

Purpose of the checklist

The State Environmental Policy Act (SEPA), RCW Chapter 43.21 C, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An Environmental Impact Statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for the applicants

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations such as zoning, shoreline and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

A. Background

1. Name of the proposed project, if applicable:

   Big Finn Hill Park - Field Conversion

2. Name of applicant:

   Kirkland Youth Lacrosse (and King County Parks) c/o Steve Lytle

3. Address and phone number of applicant and contact person:

   8251 NE Juanita Drive
   Kirkland, WA 98034
   (425) 533-3589

4. Date checklist prepared: May 25, 2011 (Updated October 2011)

5. Agency requesting checklist: King County

6. Proposed timing or schedule (including phasing, if applicable):

   Proposed work is to be completed prior to March of 2012.

7. Do you have any plans for future additions, expansion or further activity related to or connected with this proposal? ☒ Yes ☐ No If yes, explain.

   Possible field house and scorekeeper hut. It is anticipated that these improvements will be pursued after the project site has been annexed by the City of Kirkland. The City of Kirkland will be the regulatory authority for those improvements.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

   None anticipated at this time.

9. Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? ☐ Yes ☒ No If yes, explain.

10. List any government approvals or permits that will be needed for your proposal, if known.

SEPA
King County Clearing & Grading Permit (King County DDES)

11. Give brief complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Site Parcel is ~155.8-Acres, the entire park is 166 acres. Site project area is ~2.58-acres. There is an existing natural grass soccer field. The field will be replaced with a synthetic turf field of a footprint slightly smaller than the existing footprint. There will be field curbing around the new field, and some nre asphalt pavement pathways on the uphill portions (approximately 50%) of the field perimeter. There will be a small strip of asphalt (~2,000-sf) added as part of a parking reconfiguration, resulting in creation of 8 additional parking stalls. An underdrain system will be included under the field. The underdrain system will be connected to a new sand filter, which will drain runoff to and existing stormwater basin.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site or sites. Provide a legal description, site plan, vicinity map and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications to this checklist.

The site is located at 8106 NE 138th Street, Kirkland (King County), Washington 98034, in Section 24, Township 26N, Range 04E. The King County Parcel number is 242604-9013. The project site is just east of the park entrance on NE Juanita Drive.

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B. Environmental elements

1. Earth

a. General description of the site (check one)

- ☐ Flat
- ☐ Rolling
- ☐ Hilly
- ☐ Steep slopes
- ☐ Mountainous
- ☒ Other: Sloped from north to south, flat across the field.

b. What is the steepest slope on the site (approximate percent of slope)?

The steepest slopes are limited in extent, but are up to 33%, but much of the area is flatter (1% to 10%)

c. What general types of soil are found on the site (i.e., clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The soils at the project site are generally Alderwood gravelly sandy loam and Ragnar-Indianola association. These are SCS hydrologic soil groups C and B soils respectively.

d. Are there surface indications or history of unstable soils in the immediate vicinity? ☐ Yes ☒ No If so, describe.

e. Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.

Topsoil will be removed from the work areas, approximately 2,500-CY. Field areas will be filled with field base rock and then covered with synthetic turf. Pathway and parking areas will be paved. A stormwater sand filter will be excavated, filled with sand and planted with grasses. An estimated 5,000-CY of fill will be imported for the aforementioned improvements.

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f. Could erosion occur as a result of clearing, construction or use?
☒ Yes ☐ No If so, generally describe.

Surfaces will be scraped and exposed, but temporary erosion and sedimentation control measures will be required and implemented.

g. About what percent of the site will be covered with impervious surfaces after project construction (i.e., asphalt or buildings)?

Approximately 10% will be covered with impervious surfaces.

h. Proposed measures to reduce or control erosion or other impacts to the earth, if any:

Typical required temporary erosion and sedimentation control measures will be implemented. These include: catch basin inserts, silt fencing, temporary swales, rock check dams,temporary sedimentation basins, plastic sheeting and other forms of temprorary stabilization. Long term erosion and sedimentation control will largely be in the form of site stabilization (paving, turf covering, and revegetation).

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke, greenhouse gases) during construction and when the project is completed? If any, generally describe and give approximate quantities if known?

Dust during construction could be anticipated. However, typical dust control measures (watering) will be implemented. Construction equipment can also be expected to emit exhaust. These emissions are controled at the state level and are only temporary.

b. Are there any off-site sources of emissions or odor that may affect your proposal? ☐ Yes ☒ No If so, generally describe.

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c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Watering of exposed dry soils.

3. Water

a. Surface:

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, salt water, lakes, ponds, wetlands)? ☒ Yes ☐ No If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The site drains through a sand filter to an existing stormwater quality and flow control facility and then to Denny Creek, located to the approximately 500-ft southeast of the site. That stream flows southwestward approximately 2.5 miles into Lake Washington

2. Will the project require any work over, in or adjacent to (within 200 feet) the described waters? ☒ Yes ☐ No If yes, please describe and attach available plans.

Existing disturbed area will be re-surfaced and drainage, flow controls, and treatment system will be improved.

3. Estimate the amount of fill and dredge material that would be placed or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

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4. Will the proposal require surface water withdrawals or diversions? ☐ Yes ☒ No Give general description, purpose and approximate quantities if known.

5. Does the proposal lie within a 100-year floodplain?
☐ Yes ☒ No If so, note location on the site plan.

6. Does the proposal involve any discharges of waste materials to surface waters? ☐ Yes ☒ No If so, describe the type of waste and anticipated volume of discharge.

b. Ground

1. Will groundwater be withdrawn or will water be discharged to groundwater? ☐ Yes ☒ No Give general description, purpose and approximate quantities if known.

2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (i.e., domestic sewage; industrial, containing the following chemicals: . . .; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans expected to be served by the system or systems.

None

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c. Water runoff (including stormwater):

1. Describe the source of runoff (including stormwater) and method of collection and disposal, if any. Include quantities, if known. Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater will be collected from the surface and the field subsurface. Flows will conveyed to a large sand filter system for water quality treatment, per the King County Surface Water Design Manual. The sand filter will drain to an existing stormwater quality and flow control facility and then to Denny Creek, located to the approximately 500-ft southeast of the site. That stream flows southwestward approximately 2.5 miles into Lake Washington

2. Could waste materials enter ground or surface waters?
☐ Yes ☒ No If so, generally describe.

The intended use as a recreational sports field means no waste material will enter ground or surface waters. The enhanced treatment system will capture, filter, and/or treat any waste material that ends up on the field surface or from the surface materials directly. The leechability of cryogenic crumb rubber is inconclusive so an enhanced treatment system is required in the design to ensure that there will be no impact on ground or surface waters.

d. Proposed measures to reduce or control surface, ground and runoff water impacts, if any:

Stormwater will be collected from the surface and the field subsurface. flows will conveyed to a large sand filter system for water quality treatment, per the King County Surface Water Design Manual. The sand filter will drain to an existing stormwater quality and flow control facility.

4. Plants

a. Check or circle types of vegetation found on the site:

☒ Deciduous tree: alder, maple, aspen, other
☒ Evergreen tree: fir, cedar, pine, other
☒ Shrubs
☒ Grass
☐ Pasture
☐ Crop or grain
☐ Wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
☐ Water plants: water lily, eelgrass, milfoil, other
☐ Other _____

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b. What kind and amount of vegetation will be removed or altered?

Grass field and some areas of shrubs will be removed. Two conifers

c. List threatened or endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants or other measures to preserve or enhance vegetation on the site, if any:

Landscaping will generally match existing park landscaping and will be limited to returning the surrounding site to its current state after contruction access.

5. Animals

a. Check or circle any birds and animals which have been observed on or near the site:

- ☒ Birds: hawk, heron, eagle, songbirds, other
- ☒ Mammals: deer, bear, elk, beaver, other
- ☐ Fish: bass, salmon, trout, herring, shellfish, other

b. List any threatened or endangered species known to be on or near the site.

None known

c. Is the site part of a migration route? ☐ Yes ☒ No If so, explain.

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d. Proposed measures to preserve or enhance wildlife, if any:

NA

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricty for lights

b. Would your project affect the potential use of solar energy by adjacent properties? ☐ Yes ☒ No If so, generally describe.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

In general, the use of synthetic turf eliminates the need for irrigation, fertilization, mowing, aeration, etc. Design includes efficient lighting technology. Overall, the surface upgrade will bring a dramatic increase in seasonal capacity with minimal facility energy use per capita.

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7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste that could occur as a result of this proposal? ☐ Yes ☒ No
If so, describe.

1. Describe special emergency services that might be required.

Typical emergency medical aid vehicle (ambulance) services may be required. The project will enhance the already adequate access.

2. Proposed measures to reduce or control environmental health hazards, if any:

NA

b. Noise

1. What types of noise exist in the area which may affect your project (i.e., traffic, equipment, operation, other)?

Team play and community recreation (same as current) which includes parents cheering, whistles from couches or referees, and children playing. Maintenance equipment noise will be reduced because gators used for grooming and sweeping are quieter than

2. What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (i.e., traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction noise is anticipated, but site is buffered from nearby residences. Existing from programming will continue when the project is complete. This includes parents cheering, whistles from couches/referees, and children playing. Hours will extend to 11pm.

3. Proposed measures to reduce or control noise impacts, if any:

The isolation of the site will play an important part in reduction of noise impacts. Air horns, traditionally used by lacrosse will be prohibited at the field. Amplified sound and car sterioes will also be prohibited. Constuction activity is enforced by the City of Kirkland and will be restrcited accordingly.

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8. Land and shoreline use

a. What is the current use of the site and adjacent properties?

The site is currently a public park with athletic facitilies. The proposed improvements are an enhancement of an existing field area consistent with the current use.

b. Has the site been used for agriculture? ☐ Yes ☒ No
If so, describe.

c. Describe any structures on the site.

There are no structures in the project area. The park includes fences, backstops, dugouts, small retaining walls, play structures, and related infrastructure. The project field does have some fencing.

d. Will any structures be demolished? ☐ Yes ☐ No If so, what?

The fence on the Southern boundary will be removed and replaced with an upgraded fence.

e. What is the current zoning classification of the site?

R4-PSO - Residential Park Special Overlay

f. What is the current Comprehensive Plan designation of the site?

Park

g. If applicable, what is the current shoreline master program designation of the site?

None

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h. Has any part of the site been classified as an "environmentally sensitive" area? ☐ Yes ☒ No Is so, specify.

i. Approximately how many people would reside or work in the completed project?

None

j. Proposed measures to avoid or reduce displacement impacts, if any:

NA

k. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed use is the same as the existing land use.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.

None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle or low-income housing.

None

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c. Proposed measures to reduce or control housing impacts, if any:

NA

10. Aesthetics

a. What is the tallest height of any proposed structure or structures, not including antennas? What is the principal exterior building material or materials proposed?

There are no buildings proposed. There are ball nets and light poles proposed. Ball nets will extend approximately 20 feet up behind goals and four black light poles will be approximately 70 ft in height (to achieve photometric and mitigation goals)

b. What views in the immediate vicinity would be altered or obstructed?

None

c. Proposed measures to reduce or control aesthetic impacts, if any:

Fences and netting will be black, so as to minimize visibility. Only the existing field footprint will be used in order to preserve the vast majority of the park in its natural state. The project footprint takes up 1.55% of the park.

11. Light and glare

a. What type of light and glare will the proposal produce? What time of day would it mainly occur?

Field lights are proposed for use in the evenings. Lights will primarily be used in the non-Summer months to extend evening hours. Glare will be minimal and will not effect homes. The design uses full cutoff, shielded fixtures with focusing capabilitities. The field location provides between 400 and 2000 feet of wooded buffer. The photometrics show that the light drops off to moonlight level and ultimately darkness starting at 150 feet.

b. Could light or glare from the finished project be a safety hazard or interfere with views? ☐ Yes ☒ No If yes, explain:

see above.

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c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

See item 11a.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

The site is a regional public park and recreational facility and will remain so. Opportunities include lacrosse, soccer, baseball/softall, playground equipment, trails, etc.

b. Would the proposed project displace any existing recreational uses?
☐ Yes ☒ No If so, describe.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, in any:

The project is an enhancement of existing recreation opportunities.

To be completed by applicant	Evaluation for Agency Use Only

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, the national state or local preservation registers known to be on or next to the site?
☐ Yes ☒ No If so, generally describe.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural importance known to be on or next to the site.

None

c. Proposed measures to reduce or control impacts, if any:

NA

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The site is accessed via an existing park entrance drive on NE Juanita Dr. This access will remain unchanged.

b. Is the site currently served by public transit? ☒ Yes ☐ No
If not, what is the approximate distance to the nearest transit stop?

Within 0.5 mile

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c. How many parking spaces would the completed project have? How many would the project eliminate?

In conjunction with ADA parking improvements, an additional 8 parking stalls will be created via a small addition of pavement (~2,000sf) to an existing parking area.

d. Will the proposal require any new roads or streets or improvements to existing roads or streets, not including driveways? ☐ Yes ☒ No
If so, generally describe (indicate whether public or private).

e. Will the project use (or occur in the immediate vicinity of) water, rail or air transportation? ☐ Yes ☒ No If so, generally describe.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Peak trips will generally occur after school hours. The improvement does not increase the capacity of the facility at any given time so peak use will not increase from current conditions. The improvement simply expands use into more seasons of the year. (See letter from TSI)

g. Proposed measures to reduce or control transportation impacts, in any:

None

To be completed by applicant	Evaluation for Agency Use Only

15. Public services

a. Would the project result in an increased need for public services (i.e., fire protection, police protection, health care, schools, other)?
☒ Yes ☒ No If so, generally describe.

b. Proposed measures to reduce or control direct impacts on public services, if any:

NA

16. Utilities

a. Check utilities currently available at the site:

- ☒ Electricity
- ☐ Natural gas
- ☒ Water
- ☐ Refuse service
- ☐ Telephone
- ☐ Sanitary sewer
- ☐ Septic system
- ☐ Other: _____

b. Describe the utilities that are proposed for the project, the utility providing the service and the general construction activities on the site or in the immediate vicinity which might be needed.

Electrical runs from existing electrical service will be installed for lights. Existing water service will be used for spot cleaning the surface as needed.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature

11/10/11

Date submitted