

**Whitman Middle
School, Athletic
Field Lighting**

**DRAFT SEPA
Checklist**

October 2019

PREPARED FOR:

SEATTLE PUBLIC SCHOOLS
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PREPARED BY:

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ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of the proposed project, if applicable:

Whitman Middle School, Athletic Field Lighting

2. Name of Applicant:

Seattle Public Schools (SPS)

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

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Seattle, WA 98134
(206) 252-0660

4. Date checklist prepared:

October 2019

5. Agency requesting checklist:

Seattle Public Schools (SPS)

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

SPS plans to install the field lights in summer 2020. Installation of the lighting will take approximately four weeks.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Seattle Department of Parks and Recreation (Parks) plans to add artificial turf and lights to one of the athletic fields in Soundview Playfield, immediately south of Whitman Middle School. These improvements are planned to occur in 2020.

SPS may consider development at Whitman Middle School at some point in the future. Before pursuing a project at Whitman, the School Board would need to determine that the project should be included in a potential future capital projects levy. The capital projects levy would be subject to approval by a public vote, and development at the school would be subject to SEPA review as appropriate.

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

Whitman Middle School Athletic Field Lighting Project Cultural Resources Assessment, Short Report, ESA, April 2017

Geotechnical Engineering Report, Associated Earth Sciences Inc., February 23, 2017

Noise Technical Memorandum, ESA, August 29, 2019

Transportation Technical Report, Heffron Transportation, Inc., September 23, 2019

Programmatic Environmental Impact Statement for BTA IV Program, ESA, July 2016

Whitman Middle School Athletic Fields Renovation, Light and Glare Report, DA Hogan and Stantec, September 20, 2019

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There are no other applications pending for the subject property.

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

Master Use Permit	City of Seattle
Building Permit	City of Seattle
Electrical Permit	City of Seattle

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.

Seattle Public Schools (SPS) is proposing to install athletic field lighting at multiple school locations, including Whitman Middle School, in the Seattle School District, under the Buildings, Technology and Academics/Athletics IV Program (BTA IV) and Building Excellence V (BEX V) funding.

SPS and the Seattle Department of Parks and Recreation (Parks) have been working together to develop plans for installing lights at athletic fields around the City. Lighting is being installed as mitigation for the impacts of SPS's change in school start times. In fall 2016, SPS changed start times so that high school students start at 8:50 a.m. and are dismissed at 3:20 p.m., approximately 1 hour

later than the previous schedule. The later dismissal time for high schools means that school athletic fields are used for school practice and games later in the day, reducing the time that unlighted fields are available for community use under the Joint Use Agreement with Parks. This was identified as a significant adverse impact in the Change in School Start Times Programmatic Environmental Impact Statement (EIS) (SPS, 2015).

The proposed lighting at Whitman Middle School would be located at both the football/soccer field and the baseball/softball field. Lighting of the fields would allow SPS and Parks to schedule events later in the evening than currently possible. The fields would assist in relieving the demand for all-season, multi-use, lighted fields in the City.

SPS proposes to light the athletic fields at Whitman Middle School to allow for both SPS use and community use. Anticipated uses of the fields include:

- Home field for Ballard High School baseball practice and games
- Whitman Middle School after school soccer and track practice
- Parks community recreational events including youth soccer, ultimate Frisbee, baseball, and softball. The soccer field is smaller than standard for adult games and adult soccer probably would not be scheduled.

The Whitman Middle School fields accommodate football, soccer, baseball, and softball activities. A small track surrounds the football/soccer field. Light fixtures would be installed on a total of 11 galvanized steel poles around the perimeter of the football/soccer field and the baseball/softball field. One of the poles located between the fields would be shared with baseball/softball and football/soccer lights. Four poles would be for the football/soccer field (two on the north side and two on the south side). Eight poles would be for the baseball/softball field (two each on the east and south sides and one each on the north and west sides). Nine of the poles would be 70 feet tall and two of the poles (baseball/softball field) would be 80 feet tall. One pole would be shared and have shielded floodlights for the football/soccer field and the baseball/softball field.

The proposed lighting for the baseball/softball field consists of 12 - 600 watt and 30 - 900 watt shielded LED floodlights. The floodlights would be mounted on eight of the eleven galvanized steel poles surrounding the field. Six of the poles would have 2 additional 575 watt shielded LED floodlights mounted at a height of 25 feet above grade and aimed above the field. One additional low wattage “full cutoff” area light would be mounted at a height of 30 feet above grade on each pole.

The proposed lighting for the football/soccer field consists of 24 - 900 watt shielded LED floodlights. The floodlights would be mounted on four of the eleven galvanized steel poles located on the two sides of the field. The poles would be 70 feet tall with all floodlights mounted near the top of the pole. One

additional low wattage “full cutoff” area light would be mounted at a height of 30 feet above grade on each pole.

The height of the poles has been proposed in order to minimize light spillage outside the athletic complex. The lights would comply with the guidelines established by Parks (Parks, 2002). SPS and Parks propose to schedule events at the lighted fields from dusk until 10 p.m. While not currently planned, the fields may also be lit in the morning hours of winter to allow high school practice. Such future field use would be conducted in compliance with noise ordinance requirements. The proposal would not change the school enrollment or any other facilities on the site, but would allow increased use of the athletic fields for scholastic and non-scholastic recreational activities schedules to end by 9:45 p.m., with lights automatically turned off at 10:00 p.m.

In setting the cutoff time for lights, SPS considered the following:

Parks has adopted Policy # 060-P 7.1.1, Use and Scheduling of Outdoor Athletic Facilities, which became effective on July 1, 2002. For lighted fields, Parks’ policy is to schedule play until 10:45 p.m., except on fields where residences adjoin the length of the field on two or more sides (unless arterials, significant topography, and/or other buffers are found between the field and adjacent residences on one or both sides). Fields that meet these criteria are scheduled until 10:00 p.m. Unless security lighting is available, lights at all fields will be turned off 15 minutes after the end of scheduled play to allow players to leave the site safely (Policy # 060-P 7.7.1, Section 4.3.3). Because residences adjoin the Whitman fields on two sides, events at those fields would be scheduled until 10:00 p.m.

- 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(s). 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 related to this checklist.**

The school site is located at 9201 15th Avenue NW, Seattle, WA 98117. The school site is bounded by single-family homes to the immediate north and west, 15th Avenue NW to the east, and Soundview Playfield to the south. The site is located in the southeast quarter of Section 35, Township 26, Range 3. The site is made up of one parcel (parcel 352603-9131) with the following legal description:

NE 1/4 OF NE 1/4 OF SE 1/4 & E 1/2 OF NW 1/4 OF NE 1/4 OF SE 1/4 LESS
CO RD

Figures illustrating the project vicinity, athletic fields, and the proposed layout for the lighting poles are available from SPS on request.

B. ENVIRONMENTAL ELEMENTS

1. Earth

A geotechnical investigation was performed at the project site by Associated Earth Sciences, Inc. (2017). The work included a review of existing subsurface information for the property as well as drilling six soil borings on the project site. Information from this report is summarized in this section and incorporated throughout the SEPA Checklist as appropriate.

a. General description of the site (underline): Flat, rolling, hilly, steep slopes, mountainous, other.

The subject site includes steeply sloping areas leading down to the existing baseball/softball field, both from nearby properties to the west and from the area of the main school building east of the fields. These slopes are delineated as “Steep Slope Environmentally Critical Areas (ECAs) in the City of Seattle Department of Construction and Inspections (SDCI) maps. It is likely that these slopes were created during the original grading for the existing baseball/softball field. Because the project will not include construction of new buildings and will be limited to the installation of light poles for the existing athletic fields, a detailed analysis of the existing slopes around the perimeter of the project is not needed. Typically, such analyses are required if structures are planned adjacent to slopes, or if substantial cuts or fills are proposed that could affect slope stability (Associated Earth Sciences, Inc., 2017). No light poles are proposed to be located within a steep slope.

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

The City of Seattle designates slopes greater than 40% with a rise of at least 10 feet as critical areas (Seattle Municipal Code [SMC] 25.09.012).

Steep slopes (greater than 40%) are located in areas that lead down to the existing baseball/softball field, from nearby residential properties located to the west. It is likely that these slopes were created during the original grading done for the existing baseball field. No light poles are proposed to be located with any of the steep slopes on the site.

- c. What general types of soils are found on the site (for example clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

The types of soils encountered during site exploration were mostly surficial fill, generally dense to very dense sand with some silt and gravel.

- d. Are there any surface indications or a history of unstable soils in the immediate vicinity? If so, describe.**

According to the Associated Earth Sciences, Inc. report, the existing fill is relatively loose and presents some risk of greater than normal post-construction settlement. The project consists of erecting light poles, resulting in minimal ground disturbance.

- e. Describe the purpose, type, total area, and approximate quantities of total affected area of any filling or grading proposed. Indicate source of fill.**

No filling or grading is proposed for the project.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

The erosion potential of the site soils is generally low, though it is high along steeply-sloping areas. However, no soils on the slopes will be disturbed as a result of this project. Because of the flat topography around the fields, and the minimal amount of ground disturbance associated with the pole construction, the potential for erosion is minor.

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

The proposed project would not construct any buildings or add new impervious surfaces to the project site. The existing artificial turf on the athletic fields was replaced as part of a separate project in 2017.

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

No significant erosion is anticipated from installation of the lighting standards. Standard erosion control measures will be taken to minimize erosion potential. These include implementing the recommendations for fill placement and light pole foundations in the Associated Earth Sciences, Inc. report.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

During lighting installation, there may be a small increase in exhaust emissions from construction vehicles and equipment and a temporary increase in fugitive dust. When the project is complete, the increased vehicular traffic accessing the athletic fields for events may cause a small increase in exhaust emissions.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

There are no off-site sources of emissions or odors that would affect the proposed project.

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

Contractors will use best management practices to minimize construction-related emissions. These emissions are expected to be minimal.

Additionally, construction equipment would be equipped with the appropriate emission controls.

3. Water

- a. Surface Water:**

- 1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

There are no known surface water bodies on or in the immediate vicinity of the site.

- 2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The project would not require any work over, in, or adjacent to any surface water bodies.

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

The proposed project would not require any work in or near surface water, and would not place any amount of fill or dredge material in surface waters or associated wetlands.

- 4. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities, if known.**

The project would not require surface water withdrawals or diversions.

- 5. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

According to the Federal Emergency Management Agency (FEMA), Flood Insurance Maps, the site is not located within a 100-year floodplain.

- 6. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The project would not involve the discharge of waste materials to any surface waters.

b. Ground Water:

- 1. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

The proposed project does not involve withdrawal of groundwater or discharge of water to groundwater. No groundwater was encountered during soil borings, which was approximately 21 feet below the surface. The installment of poles would not affect groundwater because excavation would be shallow.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: 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 the system(s) are expected to serve.**

No waste material would be discharged into the ground. The project site would not utilize septic tanks.

c. Water Runoff (including stormwater)

1. **Describe the source of runoff (including storm water) 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.**

The new lighting poles and associated equipment would not generate additional runoff.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

It is unlikely that sediment generated during lighting installation could leave the site. Once the light poles are installed, the surrounding area will be restored.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe**

The proposed project would not alter drainage patterns.

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

No impacts to surface or groundwater are expected, nor is runoff expected to increase. Therefore, no measures are proposed to reduce impacts.

4. Plants

a. Check the 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
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

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

No vegetation would be removed or altered during installation of the poles. The athletic fields currently have artificial turf.

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

No threatened or endangered plant species or critical habitat are known to be on or near the site (WDFW, 2019).

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

No landscaping is proposed as part of the lighting project. Existing landscaping would not be affected by the project.

e. List all noxious weeds and invasive species known to be on or near the site.

No plant surveys were conducted for this Checklist. Himalayan blackberry was observed on the slope west of the football/soccer field. The project would not disturb this area.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

Animals observed on the site are restricted to typical urban birds and animals.

Fish: not applicable

Amphibians: none observed

Reptiles: none observed

Birds: species adapted to urban areas such as gulls, American crow, rock pigeon, chickadee, robin, Steller's jay, northern flicker, and Bewick's wren.

Mammals: species adapted to urban areas such as Norway rat and other rodents, raccoon, opossum.

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

According to the WDFW Priority Habitats and Species program maps, no threatened or endangered species are known to be on or near the site.

c. Is the site part of a migration route? If so, explain.

The Puget Sound area is located within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends south from Alaska to Mexico and South America. No portion of the proposed project would interfere with or alter the Pacific Flyway.

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

The proposed project is not expected to result in any impacts to wildlife or wildlife habitat. The athletic field area is not a quality habitat area for wildlife, and wildlife would avoid the area during athletic events. Light spill from the athletic fields would be reduced by the taller light poles, and would not shine on trees or shrubby areas at the edge of fields where wildlife might be located.

There is evidence that migrating birds become disoriented by lighted towers and collide with the towers, or the guy wires supporting the towers. The literature does not report bird fatalities at lighted towers less than 200 feet tall, and the U.S. Fish and Wildlife Service guidelines for siting towers do not address those less than 200 feet tall. The proposed athletic field light towers would be less than 100 feet tall, and would not use guy wires. It is unlikely that the proposed athletic field light towers would present problems for migrating birds, since the average migration elevation is 1,000 to 2,000 feet.

e. List any invasive animal species known to be on or near the site.

No animal surveys were conducted for this checklist. Invasive animal species likely to be in the area include rats and opossums, typical of an urban area.

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.**

The proposed athletic field lights would be powered by electricity.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The new lighting poles and associated equipment would not block the use of solar energy by adjacent properties. No other aspect of the project would interfere with solar energy use by others.

- 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:**

To conserve energy, the athletic field lights would use high efficiency light emitting diode (LED) floodlights. The LED floodlights would reduce the electrical energy load used for lighting by approximately 33 percent compared to standard lighting.

A fully programmable control system with remote operation would allow the fields to be lighted independently and to automatically turn off after play is completed. This feature ensures that lights would be on only during the hours that events are scheduled on each field. If necessary, the lights could also be operated manually through separate switches that would be installed.

Additionally, the new athletic field lighting would be in compliance with the Washington State Energy Code and the City of Seattle Energy Code.

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? If so, describe.**

Accidental spills of hazardous materials from equipment and vehicles could occur during construction. Installation of the light poles would require limited excavation and few vehicles, so the potential for spills would be minimal. The contractor would develop a spill prevention and control plan to prevent the accidental release of contaminants into the environment.

1. Describe any known or possible contamination at the site from present or past uses.

According to the Department of Ecology Facility/Site(s) database, the Whitman Middle School site is not known to be contaminated (Ecology, 2017).

2. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

There are no existing hazardous chemicals or conditions that would affect project development.

3. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Chemicals stored and used during construction would be limited to gasoline and other petroleum based products required for maintenance and operation of construction equipment and vehicles.

4. Describe special emergency services that might be required.

The project would not require any special emergency services.

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

Site-specific pollution prevention plans and spill prevention and control plans would be developed to prevent or minimize impacts from hazardous materials.

b. Noise

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

There are no existing sources of noise in the area that would adversely affect the proposal. Whitman Middle School is surrounded by single-family residences, playfields and arterial streets which generate background traffic noise.

Existing noise levels were originally measured at Whitman Middle School on January 24, 2017 between 7:00 p.m. and 11:00 p.m., which generally reflected existing evening/early nighttime noise conditions which are quiet and influenced by activities surrounding residential land uses near the school. Follow-up measurements were also taken on August 7, 2019 and August 13, 2019 between 8:30 p.m. and 9:30 p.m. More details can be found in the Whitman Middle School Noise Memorandum (ESA, 2019), available from SPS upon request.

The City of Seattle Noise Ordinance (SMC Chapter 25.08) regulates noise in the City. Noise is typically defined as an unwanted sound that can disrupt quality of life (EPA, 2016). Noise is typically measured in units called decibels (dB). For the purposes of environmental analysis noise is commonly quantified as “A weighted” decibels (dBA), which corresponds to the frequencies that are audible to the human ear. Use of the dBA frequency is consistent with SMC 25.08.090. Leq or the “equivalent sound level” is used to describe noise over a specified period of time in terms of a single numerical value. The Leq of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The Leq may also be referred to as the average sound level.

The City sets exterior sound level limits according to the land use of both the property generating the noise (the source) and the property receiving the noise (SMC Chapter 25.08.410). From one property to another when both properties within a residential district, the maximum allowable noise during daytime and evening hours (7:00 a.m. to 10:00 p.m.) is limited to 55 Leq (dBA).

The code further regulates noises considered “unreasonable” including "loud and raucous, and frequent repetitive or continuous sounds made by the amplified or unamplified human voice" between the hours of 10:00 p.m. and 7:00 a.m. During these hours, maximum allowable noise from one property to another within residential districts is reduced to 45 Leq (dBA). Whitman Middle School, including the athletic field, and surrounding residences are all located within residential districts per City of Seattle Zoning.

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

Minor, short-term noise impacts could result from construction vehicles and equipment during daylight hours when the light poles are installed.

Long-term noise impacts would result from increased traffic associated with the athletic events at the fields. Increased noise, including cheering, whistles, and voices of the sports participants, would also occur during the extended hours of field use allowed by the lighting. Hours of increased noise would be from dusk to 10:00 p.m. every day to accommodate both SPS and Parks activities.

Potential noise impacts to residential properties surrounding the Whitman Middle School athletic field were predicted based on review of existing conditions and anticipated noise from proposed late evening athletic activities. The noise analysis used Ingraham High School and Jane Addams Middle School to estimate future noise that would occur at Whitman Middle School with scheduled night time events. Ingraham High School and Jane Addams Middle School were selected because surrounding land uses are comparable to the Whitman Middle School neighborhood. Traffic conditions are somewhat comparable, but traffic is somewhat heavier at the Ingraham and Jane Addams sites because surrounding streets are arterials. Night-time athletic events at Ingraham High School and Jane Addams Middle School are similar to those proposed at Whitman Middle School.

Comparative noise measurements taken during evening athletic activities at Ingraham High School and Jane Addams Middle School indicate that environmental noise would increase at Whitman Middle School as a result of the proposed field lighting project. Based on the noise analysis, it is not anticipated that the noise increase would result in an exceedance of the 55 Leq (dBA) limit at adjacent residences. At the nearest residences, set back approximately 55 feet from the edge of the athletic field up a hill to the west, noise levels during evening athletic activities are anticipated to be at or below the levels recorded at the Jane Addams Middle School field, ranging from 50.9 to 52.4 Leq (dBA).

While the character of environmental noise and specific events (whistles, loud yells) during athletic activities would likely be

perceptible at adjacent residential properties – especially those immediately to the west and north of the athletic field – these noises would all be of short duration (generally no more than a few seconds for any given event). Based on measurements at Jane Addams and Ingraham athletic fields during soccer games, short-term, non-continuous noise events are not anticipated to exceed approximately 60 (dBA). These levels would be within the limits of 70 (dBA) established by SMC 25.08.410.

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

SPS and Parks would schedule evening games to end by 9:45 p.m. to minimize noise impacts on the neighborhood. Security lighting would be provided for an additional 15 minutes (until 10:00 p.m.) to allow players to safely leave the field.

No public address system would be used at the athletic fields.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The site is used as a school and is comprised of one large rectangular building with portable classrooms to the west, a parking lot, a baseball/softball field and an athletic field with surrounding track.

The school is located in a predominantly single-family residential neighborhood. Areas to the east are single family and low-rise residential and areas on the south are low-rise residential. Soundview Playfield is located adjacent to the south boundary of the school.

The project would not affect current land uses. The site has been used as a school and would continue to be used as a school.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The site is not currently and has not been previously used for working farmlands or working forest lands. No agricultural or forest land would be converted to other uses. The site has been developed as a school since the 1950s (Johnson Partnership, 2014).

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No working farm or forest lands are located near the proposed project, so the project would not affect or be affected by farm or forest land operations.

c. Describe any structures on the site.

Structures on the school site include one rectangular school building with two courtyards, approximately 10 free-standing portable buildings; a baseball/softball field, a football/soccer field and track; and a parking lot.

d. Will any structures be demolished? If so, what?

No structures would be demolished as a part of the athletic field lighting project.

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

The current zoning classification of the school site is single family residential (7200, City of Seattle, 2019).

f. What is the current comprehensive plan designation of the site?

The City of Seattle comprehensive plan designation of the site as a “Single Family Residential Area” (City of Seattle, 2019a).

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

The project site is not within a shoreline jurisdiction; therefore, there is no applicable shoreline master plan designation.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Review of the City of Seattle DCI GIS mapping database for environmental critical areas indicated an area of steep slopes bordering the east and west side of the baseball/softball field on the site as stated above in B.1(a), it is likely that these slopes were created during the original grading for the existing baseball/softball field (Associated Earth Sciences, Inc., 2017). Because the project would be limited to the installation of light poles for the existing athletic fields, the steep slopes would not be affected by the project.

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

No people would reside or work in the completed project. The proposed field lighting would allow for increased use of the fields during the late fall, winter, and spring months between 5:30 p.m. and 10:00 p.m. It is estimated that, on average, approximately 118 to 135 participants and spectators for scholastic events, and approximately 51 to 57 participants and spectators for recreational athletic events could use the site on any given evening (Heffron Transportation, 2019).

j. Approximately how many people would the completed project displace?

The completed project would not displace any people.

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

No displacement would occur; therefore, no mitigation measures are needed.

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

The proposed height of the light poles is taller than permitted by Seattle Municipal Code in a single-family residential area. The height limit for light poles in residential areas is 30 feet and the proposed poles would be 70 to 80 feet (SMC 23.76). SMC 23.51B.002(D)(6) permits light poles at public school athletic fields to exceed the maximum permitted height up to a maximum of 100 feet if the Director of the Department of Construction and Inspection (DCI) determines that the additional height is necessary to ensure adequate illumination and that light and glare are minimized to the extent practicable. Section 11 of this Checklist describes how the taller poles reduce light and glare impacts.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

The project is not located near any agricultural or forest lands, so no measures to ensure compatibility are required.

9. Housing

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

No housing units would be provided as part of the project.

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

No housing units would be eliminated.

- c. Describe proposed measures to reduce or control housing impacts, if any.**

The project would not cause housing impacts; therefore, mitigation measures to control housing impacts would not be required.

10. Aesthetics

- a. What is the tallest height of any of the proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The tallest proposed structures are the light poles for the athletic fields. There are eleven poles proposed for the lighting system. These poles would be 70 to 80 feet high. The poles would have one horizontal galvanized bracket to mount the floodlights, with cut off lights at 30 feet. On the baseball/softball field, the floodlights would be mounted near the top of the pole on eight galvanized steel poles surrounding the field. On the football/soccer field, the floodlights would be mounted near the top of the pole on four galvanized steel poles on two sides of the field.

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

Views across the athletic fields would be altered by the new light poles.

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

The steel poles are designed to minimize size and bulk. The floodlights and brackets are designed to minimize quantity, size and bulk.

11. Light and Glare

The following is based on the “Whitman Middle School Athletic Fields Renovation, Light and Glare Report” by DA Hogan and Stantec, dated September 20, 2019. The full Light and Glare report is available from SPS upon request.

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

The proposed lighting for the baseball/softball field would include 42 – 600\900 watt shielded LED floodlights mounted on eight of the eleven galvanized steel poles surrounding the field. The poles would be 70 to 80

feet tall. One pole would be shared with the football/soccer field. Six of the poles would have two additional lower wattage floodlights mounted at 25 feet above grade and aimed above the field. One additional low wattage “full cutoff” area light would be mounted at a height of 30 feet above grade on each pole.

The proposed lighting for the football/soccer field would include 24 - 900 watt shielded LED floodlights mounted on four of the eleven galvanized steel poles located on the two sides of the field. The poles would be 70 feet tall with all floodlights mounted near the top of the pole. One pole would be shared with baseball/softball field. One additional low wattage “full cutoff” area light would be mounted 30 feet above grade on each pole. For examples of the LED and associated shields, please refer to the “Whitman Middle School Athletic Fields Lighting, Light and Glare Report”.

The sports field lighting would be designed to a Class IV lighting level, as prescribed by the Illuminating Engineering Society of North America (IESNA) standard Recommended Practice for Sports Lighting (RP)-8. The football/soccer field would be lighted to an average maintained lighting level of 29 foot-candles¹ using a 0.95 Light Loss Factor. The baseball/softball infield would be lighted to an average maintained lighting level of 41 foot-candles using a 0.95 Light Loss Factor. The baseball/softball outfield would be lighted to an average maintained lighting level of 29 foot-candles using a 0.95 Light Loss Factor.

Current City of Seattle guidelines recommend that athletic field spill light not exceed 1.0 foot-candles initial at residential property lines. To comply with this requirement, an exemption to the height limit is required. This exemption will ensure adequate illumination for safe play and reduce the amount of impacts from light and glare into the neighborhood.

The lighting systems would operate from dusk to the pre-set curfew time. The lighting systems would be operated by a fully programmable control system with remote operation. The lights for the baseball/softball field and the football/soccer field would be operated separately so that they could be turned off when not in use. The area lights would be on a separate zone and would remain on for a short time after each event to provide ample light for egress from the site following the completion of scheduled field use each evening.

The new lighting system would increase the overall light and glare in the area during evening hours. The proposal would produce direct glare,

¹ A foot-candle is a standard unit of measurement for lighting levels and is equivalent to the illumination produced by one candle at a distance of one foot.

reflected glare, spill light (light trespass) and sky glow. Commonly used lighting terms as defined by the Illuminating Engineering Society are described as follows:

glare is the sensation produced by luminance within the visual field that is sufficiently greater than the luminance to which the eyes are adapted to, causing annoyance, discomfort, or loss in visual performance and visibility.

direct glare describes when an observer can see directly into a luminaire's light source, where the lamp or the reflector are visible.

foot candles a measurement of the light intensity, the illuminance being a one-square foot surface from a uniform source of light.

luminance refers to direct glare and reflected glare.

reflected glare describes when light reflected from a surface causes disability glare. It is assumed that the surface is not intentionally a light source. Surfaces attributable to reflected glare would have a higher luminance than adjacent or nearby surfaces.

spill light is light from a source, which does not strike the area intended for illumination. Spill light can be characterized by foot-candles (fc) calculated or measured in a horizontal or vertical plane.

light trespass is when spill light extends beyond the property line of the owner of a light source, and onto or above another owner's property.

sky glow is the haze or glow of light emitted above the lighting installation and reduces the ability to view the darkened night sky. This is a combination of light emitted directly from the light source, light reflected upward from the illuminated surface, and light reflected from airborne particles between the light source and the illuminated surface.

Depending on the viewpoint location, direct glare (and reflecting glare) would be visible from all directions overlooking the athletic fields. Due to their proximity to the fields, properties to the north of the football/soccer field and west of the football/soccer and baseball/softball fields would be exposed to direct glare at low and moderate levels. These properties are close to the fields with direct exposure to the light poles and floodlight assemblies. The direct glare visible at these residences would primarily be from light bouncing off the internal polished reflecting surface of the floodlights. The residences adjacent to the baseball/softball field would have slightly less exposure to direct glare because the residences are at a higher elevation than the field. Residential properties that do not border

the site are located farther away from the field and would have minimal to no direct glare and reflected glare impacts.

The spill light impacts would occur at the residential properties that border the site on the north side of the football/soccer field and the west side of the football/soccer and baseball/softball fields. The spill light impacts would be minimal right at the residential property lines immediately adjacent to the fields. Spill light would be below 1.0 foot-candle maximum at the property line, drop below 0.2 foot-candle horizontal within 20 feet of the property line. The spill light would be reduced to 0.0 foot-candle within 40 feet of the property line.

The athletic field lighting system would generate a minimal amount of “sky glow” at locations in close proximity to the fields. Sky glow would be very minor during heavy low overcast skies and small amounts of sky glow would be evident during conditions of low to heavy fog.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

The illumination system would not pose a safety hazard or interfere with views from off-site locations.

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

No offsite sources of light or glare would affect this proposal.

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

The lighting systems selected for the proposed athletic fields are designed to minimize light and glare impacts. To reduce the amount of glare, spill light and sky glow that is visible off-site the floodlights would need to be mounted higher than the 30 feet permitted by City code (SMC 23.76). The increased mounting height of 70 to 80 feet would reduce the maximum spill light at the residential property lines and meet recommended practice of maximum of 1.0 foot-candles set by the City of Seattle.

12. Recreation

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

Recreational opportunities on the Whitman Middle School site include a baseball/softball field, a football/soccer field surrounded by a track.

City of Seattle Parks in the vicinity of Whitman Middle School include:

- Soundview Playfield, located immediately south of the project site, featuring two baseball fields, a soccer field, a playground and open space.
- Crown Hill Park, located approximately 1,150 feet to the east of the project site, featuring trail access, open space, and a skate dot.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project would not displace any existing recreational uses. City of Seattle Parks in the vicinity of the project site would not be impacted by the project.

Recreational opportunities for the school and community use would be enhanced with installation of field lighting. Installation of lights would allow SPS and Parks to schedule events later in the evening than currently possible and help meet the demand for athletic field use in the City.

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

This project would increase the number of available hours for use of Whitman's athletic fields. The proposed lighting project is intended to mitigate for the impacts of reduced Parks use of SPS athletic fields caused by the later start times of high schools (see Section A.11). No additional mitigation measures are required.

13. Historic and Cultural Preservation

The following is based on the *Cultural Resources Short Report* prepared by ESA (April 2017).

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

The school site was purchased in the 1950s and developed as a school in 1959, and became a middle school in 1981. Both the school building and portables located west of the school are older than 45 years. No impacts to the school or portables are anticipated associated with the field lighting.

There are 15 unevaluated historic-aged properties in the project vicinity. The project consists of the athletic fields; the Study Area used for historic properties consists of those parcels bordering the athletic fields. These are residences adjacent to the project that meet the minimum-age threshold for

an historic property (being 25 years old) based on the City's Planning Department and SMC 25.05.675H. None of the properties have been inventoried in the Washington State Department of Archaeology and Historic Preservation's (DAHP) historic property inventory database. The homes are part of the Olympic Manor and Sunset Hill developments, and face away from the fields. It is anticipated that there would be no impacts to the 15 historic-aged properties as no buildings would be demolished or modified by the project.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

There are no City of Seattle Landmark properties or evidence of Native American historic use or occupation on the site. No cultural materials or archaeological sites were identified. In three of the five boreholes excavated as part of the geotechnical investigation on the site (Associated Earth Sciences, Inc., 2017), the sediments demonstrated variable depths of fill, directly overlying Advance Outwash Deposits, as predicted (surfaces that had been available for occupation during the pre-contact period had been removed and covered with fill). In the remaining two boreholes, fill overlaid weathered till. The weathered till was the ground-surface during the pre-contact period, indicating that cultural resources may be present.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

ESA conducted a literature review of the Project Area and Study Area, and reviewed geotechnical data. Information reviewed included any previous archaeological survey reports, ethnographic studies, historic maps, government landowner records, aerial photographs, regional histories, geological maps, soils surveys, and environmental reports. These records were reviewed in order to determine the presence of any potentially significant cultural resources, including Traditional Cultural Properties (TCPs), within the Project Area. Relevant documents were examined at DAHP, the University of Washington Libraries, online, and within ESA's research library.

- d. **Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

The project would not involve any ground-disturbing excavations; therefore, no additional cultural resources work is recommended.

14. Transportation

A Transportation Technical Report (Heffron Transportation, Inc., September 23, 2019) has been prepared for the proposed project and the results of the report are summarized in this section. The full Transportation Technical Report is available from SPS upon request.

- a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

The Whitman Middle School site is bounded on the east by 15th Avenue NW, on the south by Soundview Playfield, and on the north and west by private residential properties. The school has one primary parking lot with 55 striped spaces with two one-way driveways on 15th Avenue NW (entrance on the north and exit on the south). In addition to the main parking lot, there is a paved surface located between the football/soccer field and the school building with gated access from 17th Avenue NW. That area is used for school employee parking and has an estimated capacity of 32 vehicles (striping has faded). The project would not change access to the school site.

- b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

Yes, King County Metro Transit (Metro) provides bus service directly to the Whitman Middle School site. There are Metro bus stops serving both directions immediately to the south of NW 96th Street and at NW 92nd Street (the southbound stop is south of the intersection; the northbound stop is north of the intersection). The southbound stops have shelters and the northbound stops do not. These stops are served by Metro's Route 15, which provides weekday express (peak-period, peak-direction) service between Downtown Seattle, Ballard, Crown Hill, and Blue Ridge. It operates with 13 trips into Downtown Seattle in the morning between about 6:50 and 9:15 A.M.; it operates with 10 trips from Downtown Seattle in the afternoon between about 4:00 and 7:00 P.M. During these periods, the headways (time between consecutive buses) are between 7 and 12 minutes.

Southeast of the site, Metro's RapidRide D Line and Route 40 operate along Holman Road NW and 15th Avenue NW. These routes offer all-day

service seven-days per week with headways of 6 to 15 minutes. The nearest stops are on Holman Road NW, about a 1,200-foot walking distance from the school.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The project would not add or eliminate any parking spaces.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

No, the project would not require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The project would not use or occur in the immediate vicinity of water, rail, or air transportation. The site is located about a half-mile east of the BNSF Seattle Subdivision railroad that is aligned along Shilshole Bay and carries freight and passenger rail trains from Seattle to areas north; however, the project would have no impacts on this rail line.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

The field lighting project is expected to generate about 350 to 400 additional trips per day for part of the year—primarily from about October until early March. Peak volumes (estimated at about 85 trips per hour associated with scholastic athletics) added due to the field lights could occur in PM peak hour as a high school athletic practice or game ends (up to 55 outbound trips) and the spectators and participants of a recreational game arrive (estimated at 25 trips in and 5 trips out). During the remainder of the year, natural lighting conditions allow for field use during these times without the need for field lights.

Based on observations of traffic at other athletic fields, none of the new trips are expected to be trucks (commercial or non-passenger vehicles). However, participants and/or spectators of some scholastic athletics may be transported to and from the site in buses (e.g., school buses).

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The proposal would not interfere with the movement of agricultural or forest products on streets in the area because no agricultural or working forest lands are located within the vicinity of the project site.

- h. Proposed measures to reduce or control transportation impacts, if any:**

Based upon the transportation and parking analyses conducted for this project, the proposed project would not result in significant adverse impacts to traffic or parking within the study area (Heffron, 2019). It is recommended that the District and Whitman Middle School ensure that the off-street parking lots are open and available for users during all times that the fields are being used. No other mitigation would be required to accommodate the project.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

Lighting the fields would add activities and people to the facility during evening hours. Scheduling of night games could require additional police protection; however, attendance at these events would be small.

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

According to the 2016-2019 Joint Use Agreement with Parks, SPS would provide and schedule all necessary staff for all SPS owned fields including field attendants, supervision, and security for the fields. This includes, but is not limited to, unlocking gates, bathrooms, storage rooms and security support.

16. Utilities

- a. Underline utilities currently available at the site:**

Existing utilities currently at the site include electricity, natural gas, water, refuse service, telephone, storm drain, and sanitary sewer.

- 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.**

Electricity, telephone, restrooms and natural gas would continue to be provided to the school. The new lights would require additional electricity. SPS would work with Seattle City Light to coordinate the extension of utilities to the new light poles.

SPS installed the electrical conduit as part of the 2017 project to replace the existing artificial turf. During that project, all existing utilities in the vicinity of the light pole locations would be located. Installation of the light poles and connecting power to them would require limited excavation, so no impacts to utilities are anticipated.

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: _____

Name of signee: _____

Position and
Agency/Organization: _____

Date Submitted: _____

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