School IPM Inside and Out
Outdoor Pest and Site Management Assessment

Note to Community IPM Team members:
This Assessment Tool includes questions relevant for measuring and assessing site and pest management practices throughout the school grounds. The goal of the assessment is measure the reality of current practices prior to implementation of the SIPMI&O program, and then post.

Sections of this questionnaire may be relevant to different individuals at the school sites as well as to different specialists on our team. The goal is, over the first few visits to each site, to have completed as much of the questionnaire as possible by conducting brief interviews with the appropriate personnel while touring the school grounds. Record what people say, but also record the reality of what you see on the ground. For the purpose of the site assessment, direct observation trumps responses from school personnel where the two are in conflict.

- **Section 1** contains broad, general questions related to all sites on school grounds that will be assessed (p.2).
- **Section 2** opens with a few questions related to turf on all sites on school grounds. Use it to determine which subsections, 2A, 2B and/or 2C need to be completed for a particular school (p.5).
- **Section 2A** focuses on landscape turf. Complete only if relevant (p.6).
- **Section 2B** focuses on playground turf. Complete only if relevant (p.12).
- **Section 2C** focuses on athletic fields. Complete only if relevant (p.18).
- **Section 3** focuses on landscape management and pest management exclusive of turf, including trees, shrubs and bedding plants (p.24).
Section 1: General Questions Applicable to All Outdoor Areas

1A. Site layout

1. Is there a current map or blueprint of the site?
   ____ Yes (1)
   ____ We have a map, but it is out of date (.5)
   ____ No (0)

2. Are the types of trees, shrubs, bedding plants and turf identified, labeled or marked on a map?
   ____ Yes (1)
   ____ No (0)

3. Are various landscapes prioritized as high priority maintenance versus lesser priority maintenance?
   ____ Yes (1)
   ____ No (0)

Comments / Notes (optional):

1B. Soil

4. Are soil types known for the site?
   ____ Yes (1)
   ____ No (0)

5. What soil tests are conducted? (1 point each)
   ____ Soil texture  How often? __________________
   ____ Soil nutrients  How often? __________________
   ____ pH  How often? __________________
   ____ Alkalinity  How often? __________________
   ____ Electrical conductivity (EC)  How often? __________________

6. Are soils tested for drainage?
   ____ Yes (1)
   ____ No (0)
7. Are there any drainage problems on the grounds as shown by prolonged standing water?
   ____ Yes (0)
   ____ No (1)

Comments / Notes (optional):

1C. Irrigation

8. Is there a current map of irrigation pipes?
   ____ Yes (1)
   ____ No (0)

9. Is there a current map of irrigation zones?
   ____ Yes (1)
   ____ No (0)

10. Is all the irrigation automated with irrigation controllers?
    ____ Yes (1)
    ____ No (0)

11. Is any irrigation done manually?
    ____ Yes (1)
    ____ No (0)

12. What is the quality of the irrigation water?
    ____ Potable (1)
    ____ Reclaimed (.5)
    ____ Gray Water (0)

13. What are pH and electrical conductivity (EC) of irrigation water?
    pH _________
    EC _________

14. What type of irrigation systems are used for which types of plants?
    Overhead for ____________________________________________________________
    Drip system for __________________________________________________________
    Spray stakes for __________________________________________________________
    Bubblers for ______________________________________________________________
    Manual irrigation with hose for ______________________________________________
    __________________________________________________________

15. What criteria are used to determine irrigation frequency and duration? (Check all that apply)
    ____ AZMET (1)
16. How often is the irrigation system checked for uniformity, pressure, emitter output and coverage?
   ____ Weekly (1.5)
   ____ Monthly (1)
   ____ 6 Months (.75)
   ____ Yearly (.5)
   ____ Other (please specify):

17. Is an irrigation audit conducted regularly on the turf irrigation system?
   ____ Yes (1)
   ____ No (0)

18. How often are irrigation controllers adjusted?
   ____ Seasonal (1)
   ____ Fixed Schedule (0)
   ____ Other (please specify):

Comments / Notes (optional):
Section 2: Turf

General Questions

19. Which of the following types of turf sites do school personnel manage? (Check all that apply)
   _____ Landscape turf.............If checked complete part 2A starting on p.6
   _____ Playgrounds................If checked complete part 2B starting on p.12
   _____ Athletic fields..............If checked complete part 2C starting on p.18

20. Are different types of turf managed the same or are they managed according to their use? (landscape turf, playground turf, athletic turf)
   _____ Managed the same (0)
   _____ Managed differently (1)
Section 2A. Landscape Turf

General Management

21. What types of turfgrass are grown?

22. What is the mowing height?

23. How often is the turf mowed?

24. Is the turf aerified?
   _____ Yes (1)
   _____ No (0)

25. If so, how often and when?

26. Is the turf de-thatched (verticut)?
   _____ Yes (1)
   _____ No (0)

27. If so, how often and when?

28. Is overseeding done for a winter turf?
   _____ Yes (1)
   _____ No (0)

Comments / Notes (optional):

Fertility

29. Are soils or plant tissues tested for nutrient content before fertilizing? If so, how often?
   _____ Yes, prior to each fertilization (1)
   _____ Yes, sometimes, but not prior to each fertilization (.5)
   _____ No (0)

30. What is the schedule for fertilizing?
31. What types of fertilizer are used?

32. How much fertilizer is applied each time?

33. What type of fertilizer application equipment is used?

34. How often is the fertilizer application equipment calibrated?
   - Prior to each use (1)
   - Daily (1)
   - Weekly (.5)
   - Monthly (0)
   - Yearly (0)
   - Never (0)

35. Are delivery amounts, speeds, and volumes known for each setting on application equipment?
   - Yes (1)
   - No (0)

Comments / Notes (optional):

**Pest Management**

36. Which of the following cultural issues pose a problem in your turf? (Check all that apply)
   - Uneven irrigation
   - Poor drainage
   - Compaction
   - Holes / uneven surface area
   - Other (please specify)

37. Which of the following pests pose a problem? (Check all that apply.)
   - Weeds (please specify which weeds and where they occur):
____ Insect pests (please specify which insects and where they occur):

____ Diseases (please specify which diseases and where they occur):

____ Vertebrate pests (please specify which vertebrates and where they occur):

38. Are management areas regularly monitored / inspected to identify any existing pest problems?
   ____ Yes (1)
   ____ No (0)
   If yes, how often?

39. Are any cultural practices done with the intent of discouraging or preventing pest, disease, or weed problems?
   ____ Yes (1)
   ____ No (0)

40. If so, which ones? (1 point per relevant practice used)

41. Are pests identified prior to implementation of any pest control strategy?
   ____ Always (1)
   ____ Most of the time (.75)
   ____ Sometimes (.5)
   ____ Rarely (.25)
   ____ Never (0)

42. What non-chemical and reduced-hazard pest control methods are used? (1 point each)
   ____ Conservation of natural enemies / beneficial insects (if yes, which beneficial insects have been observed?):

   ____ Application of nematodes or other biological insecticides (please specify):
Application of selective, reduced-hazard pesticides that help preserve natural enemies
Hand pulling / physical removal of weeds
Other (please specify):

43. Are pesticides, other than herbicides, used on turf?
   ___ Yes
   ___ No

44. If yes, are these pesticides used only in the infested area?
   ___ Yes (1)
   ___ No (0)

45. If pesticides are used, are they only used when the pest or disease problem is observed, or are they used preventatively?
   ___ Observed (1)
   ___ Preventative (0)

46. Are pre-emergence herbicides used?
   ___ Yes
   ___ No

47. If yes, which weeds are they controlling?

48. When are they applied?

49. Are post-emergence herbicides used?
   ___ Yes
   ___ No

50. Which weeds are they controlling?

51. When are they applied?

52. How are pests and weeds controlled along fence lines?

53. Are insecticides used to control insect pests?
54. If so, which ones?

55. Are fungicides used to control plant diseases?
   ____ Yes
   ____ No

56. If so, which ones?

57. Are reduced-hazard pesticides used for controlling weeds, insects, and diseases?
   ____ Yes (1)
   ____ No (0)

58. If yes, which ones?

59. Are pesticide and herbicide application equipment calibrated before use?
   ____ Yes (1)
   ____ No (0)

60. Are nozzles checked to be the same size and not worn?
   ____ Yes (1)
   ____ No (0)

61. Are hoses, valves, and gauges checked so they don't leak?
   ____ Yes (1)
   ____ No (0)

62. How often is the spray equipment calibrated?
   ____ Prior to each use (1)
   ____ Daily (1)
   ____ Weekly (.5)
   ____ Monthly (0)
   ____ Yearly (0)
   ____ Never (0)

63. How are vertebrate pests controlled?
64. Which of the following records are kept?
   _____ Records of pest monitoring and occurrence (1)
   _____ Equipment maintenance records (sprayer calibration, etc) (1)
   _____ Pesticide application records (1)
   _____ Other (please specify)

65. May we have access to relevant records, including pesticide application records, for the purpose of assessing the progress of the School IPM Inside and Outside program?
   _____ Yes
   _____ No
   Contact Person(s):

Comments / Notes (optional):
Section 2B. Playground Turf

General Management

66. What types of turfgrass are grown?

67. What is the mowing height?

68. How often is the turf mowed?

69. Is the turf aerified?
   ____ Yes (1)
   ____ No (0)

70. If so, how often and when?

71. Is the turf de-thatched (verticut)?
   ____ Yes (1)
   ____ No (0)

72. If so, how often and when?

73. Is overseeding done for a winter turf?
   ____ Yes (1)
   ____ No (0)

Comments / Notes (optional):

Fertility

74. Are soils or plant tissues tested for nutrient content before fertilizing? If so, how often?
75. What is the schedule for fertilizing?

76. What types of fertilizer are used?

77. How much fertilizer is applied each time?

78. What type of fertilizer application equipment is used?

79. How often is the fertilizer application equipment calibrated?
   - Yes, prior to each fertilization (1)
   - Yes, sometimes, but not prior to each fertilization (.5)
   - No (0)

80. Are delivery amounts, speeds, and volumes known for each setting on application equipment?
   - Yes (1)
   - No (0)

Comments / Notes (optional):

Pest Management

81. Which of the following cultural issues pose a problem in your turf? (Check all that apply)
   - Uneven irrigation
   - Poor drainage
Compaction
Holes / uneven surface area
Other (please specify)

82. Which of the following pests pose a problem? (Check all that apply.)

Weeds (please specify which weeds and where they occur):

Insect pests (please specify which insects and where they occur):

Diseases (please specify which diseases and where they occur):

Vertebrate pests (please specify which vertebrates and where they occur):

83. Are management areas regularly monitored / inspected to identify any existing pest problems?

Yes (1)
No (0)
If yes, how often?

84. Are any cultural practices done with the intent of discouraging or preventing pest, disease, or weed problems?

Yes (1)
No (0)

85. If so, which ones? (1 point per relevant practice used)
86. Are pests identified prior to implementation of any pest control strategy?
   _____ Always (1)
   _____ Most of the time (.75)
   _____ Sometimes (.5)
   _____ Rarely (.25)
   _____ Never (0)

87. What non-chemical and reduced-hazard pest control methods are used? (1 point each)
   _____ Conservation of natural enemies / beneficial insects (if yes, which beneficial insects have been observed?):

   _____ Application of nematodes or other biological insecticides (please specify):

   _____ Application of selective, reduced-hazard pesticides that help preserve natural enemies
   _____ Hand pulling / physical removal of weeds
   _____ Other (please specify):

88. Are pesticides, other than herbicides, used on turf?
   _____ Yes
   _____ No

89. If yes, are these pesticides used only in the infested area?
   _____ Yes (1)
   _____ No (0)

90. If pesticides are used, are they only used when the pest or disease problem is observed, or are they used preventatively?
   _____ Observed (1)
   _____ Preventative (0)

91. Are pre-emergence herbicides used?
   _____ Yes
   _____ No

92. If yes, which weeds are they controlling?

93. When are they applied?

94. Are post-emergence herbicides used?
   _____ Yes
   _____ No
95. Which weeds are they controlling?
96. When are they applied?
97. How are pests and weeds controlled along fence lines?

98. Are insecticides used to control insect pests?
   ____ Yes
   ____ No

99. If so, which ones?

100. Are fungicides used to control plant diseases?
    ____ Yes
    ____ No

101. If so, which ones?

102. Are reduced-hazard pesticides used for controlling weeds, insects, and diseases?
    ____ Yes (1)
    ____ No (0)

103. If yes, which ones?

104. Are pesticide and herbicide application equipment calibrated before use?
    ____ Yes (1)
    ____ No (0)

105. Are nozzles checked to be the same size and not worn?
    ____ Yes (1)
    ____ No (0)

106. Are hoses, valves, and gauges checked so they don’t leak?
    ____ Yes (1)
    ____ No (0)

107. How often is the spray equipment calibrated?
    ____ Prior to each use (1)
108. How are vertebrate pests controlled?

109. Which of the following records are kept?
- Records of pest monitoring and occurrence (1)
- Equipment maintenance records (sprayer calibration, etc) (1)
- Pesticide application records (1)
- Other (please specify)

110. May we have access to relevant records, including pesticide application records for the purpose of assessing the progress of the School IPM Inside and Outside program?
- Yes
- No

Contact Person(s):

Comments / Notes (optional):
Section 2C. Athletic Fields

General Management

111. What types of turfgrass are grown?

112. What is the mowing height?

113. How often is the turf mowed?

114. Is the turf aerified?
   _____ Yes (1)
   _____ No (0)

115. If so, how often and when?

116. Is the turf de-thatched (verticut)?
   _____ Yes (1)
   _____ No (0)

117. If so, how often and when?

118. Is overseeding done for a winter turf?
   _____ Yes (1)
   _____ No (0)

Comments / Notes (optional):

Fertility
119. Are soils or plant tissues tested for nutrient content before fertilizing? If so, how often?
   ____ Yes, prior to each fertilization (1)
   ____ Yes, sometimes, but not prior to each fertilization (.5)
   ____ No (0)

120. What is the schedule for fertilizing?

121. What types of fertilizer are used?

122. How much fertilizer is applied each time?

123. What type of fertilizer application equipment is used?

124. How often is the fertilizer application equipment calibrated?
   ____ Prior to each use (1)
   ____ Daily (1)
   ____ Weekly (.5)
   ____ Monthly (0)
   ____ Yearly (0)
   ____ Never (0)

125. Are delivery amounts, speeds, and volumes known for each setting on application equipment?
   ____ Yes (1)
   ____ No (0)

Comments / Notes (optional):  

Pest Management

126. Which of the following cultural issues pose a problem in your turf? (Check all that apply)
___ Uneven irrigation
___ Poor drainage
___ Compaction
___ Holes / uneven surface area
___ Other (please specify)

127. Which of the following pests pose a problem? (Check all that apply.)

___ Weeds (please specify which weeds and where they occur):

___ Insect pests (please specify which insects and where they occur):

___ Diseases (please specify which diseases and where they occur):

___ Vertebrate pests (please specify which vertebrates and where they occur):

128. Are management areas regularly monitored / inspected to identify any existing pest problems?
   ___ Yes (1)
   ___ No (0)
   If yes, how often?

129. Are any cultural practices done with the intent of discouraging or preventing pest, disease, or weed problems?
   ___ Yes (1)
   ___ No (0)

130. If so, which ones? (1 point per relevant practice used)
131. Are pests identified prior to implementation of any pest control strategy?
   _____ Always (1)
   _____ Most of the time (.75)
   _____ Sometimes (.5)
   _____ Rarely (.25)
   _____ Never (0)

132. What non-chemical and reduced-hazard pest control methods are used? (1 point each)
   _____ Conservation of natural enemies / beneficial insects (if yes, which beneficial insects have been observed?):

   _____ Application of nematodes or other biological insecticides (please specify):

   _____ Application of selective, reduced-hazard pesticides that help preserve natural enemies
   _____ Hand pulling / physical removal of weeds
   _____ Other (please specify):

133. Are pesticides, other than herbicides, used on turf?
   _____ Yes
   _____ No

134. If yes, are these pesticides used only in the infested area?
   _____ Yes (1)
   _____ No (0)

135. If pesticides are used, are they only used when the pest or disease problem is observed, or are they used preventatively?
   _____ Observed (1)
   _____ Preventative (0)

136. Are pre-emergence herbicides used?
   _____ Yes
   _____ No

137. If yes, which weeds are they controlling?

138. When are they applied?
139. Are post-emergence herbicides used?
    ____ Yes
    ____ No

140. Which weeds are they controlling?

141. When are they applied?

142. How are pests and weeds controlled along fence lines?

143. Are insecticides used to control insect pests?
    ____ Yes
    ____ No

144. If so, which ones?

145. Are fungicides used to control plant diseases?
    ____ Yes
    ____ No

146. If so, which ones?

147. Are reduced-hazard pesticides used for controlling weeds, insects, and
diseases?
    ____ Yes (1)
    ____ No (0)

148. If yes, which ones?

149. Are pesticide and herbicide application equipment calibrated before use?
    ____ Yes (1)
    ____ No (0)

150. Are nozzles checked to be the same size and not worn?
    ____ Yes (1)
    ____ No (0)

151. Are hoses, valves, and gauges checked so they don’t leak?
    ____ Yes (1)
152. How often is the spray equipment calibrated?
   - Prior to each use (1)
   - Daily (1)
   - Weekly (.5)
   - Monthly (0)
   - Yearly (0)
   - Never (0)

153. How are vertebrate pests controlled?

154. Which of the following records are kept?
   - Records of pest monitoring and occurrence (1)
   - Equipment maintenance records (sprayer calibration, etc) (1)
   - Pesticide application records (1)
   - Other (please specify)

155. May we have access to relevant records, including pesticide application records for the purpose of assessing the progress of the School IPM Inside and Out program?
   - Yes
   - No

Contact Person(s):

Comments / Notes (optional):

**Section 3: Landscape plants**

**General Information**

156. What types of trees, shrubs and other plants are grown?
157. Is there a maintenance plan for landscape plants?
    ____ Yes (1)
    ____ No (0)

158. If yes, is it...
    ____ Seasonal
    ____ By calendar
    ____ Monthly
    ____ Other (please specify)

159. When were the majority of trees and shrubs established on the property?

160. Is there a replacement plan in case of plant failure?
    ____ Yes (1)
    ____ No (0)

161. If so, what is the plan?

162. Are current plants and new plants selected based on their adaptability to the
    climate, soil conditions, exposure, and function?
    ____ Yes (1)
    ____ No (0)

163. Is the size of current plants appropriate for the space allocated?
    ____ Yes (1)
    ____ No (0)

164. Are trees and shrubs pruned on a schedule or an as needed basis?
    ____ As needed (1)
    ____ Schedule (0)

165. Is a certified arborist consulted to examine trees periodically?
    ____ Yes (1)
    ____ No (0)

Fertility

166. Are soils or plant tissues tested for nutrient content before fertilizing? If so, how often?
167. What is the schedule for fertilizing?

168. What types of fertilizer are used?

169. How much fertilizer is applied each time?

Comments / Notes (optional):

Pest Management

170. Which of the following cultural issues pose a problem in the landscape? (Check all that apply)
   ____ Improper irrigation
   ____ Nutrient management issues
   ____ Poor drainage
   ____ Poor soil
   ____ Other (please specify):

171. Which of the following pests pose a problem? (Check all that apply.)

   ____ Weeds (please specify which weeds and where they occur):

   ____ Insect pests (please specify which insects and where they occur):

   ____ Diseases (please specify which diseases and where they occur):
172. Are management areas regularly monitored / inspected to identify any existing pest problems?
   ____ Yes (1)
   ____ No (0)
   If yes, how often?

173. Are any cultural practices done with the intent of discouraging or preventing pest, disease, or weed problems?
   ____ Yes (1)
   ____ No (0)

174. If so, which ones? (1 point per relevant practice used)

175. Are pests identified prior to implementation of any pest control strategy?
   ____ Always (1)
   ____ Most of the time (.75)
   ____ Sometimes (.5)
   ____ Rarely (.25)
   ____ Never (0)

176. What non-chemical and reduced-hazard pest control methods are used? (1 point each)
   ____ Conservation of natural enemies / beneficial insects (if yes, which beneficial insects have been observed?):
   ____ Application of nematodes or other biological insecticides (please specify):
   ____ Application of selective, reduced-hazard pesticides that help preserve natural enemies
   ____ Hand pulling / physical removal of weeds
___ Physical removal of pest
___ Other (please specify):

177. Are pesticides other than herbicides, used on trees and shrubs?
     ____ Yes
     ____ No

178. If yes, are these pesticides used only in the infested area?
     ____ Yes (1)
     ____ No (0)

179. If pesticides are used, are they only used when the pest or disease problem is
     observed, or are they used preventatively?
     ____ Observed (1)
     ____ Preventative (0)

180. Are pre-emergence herbicides used?
     ____ Yes
     ____ No

181. If yes, which weeds are they controlling?

182. When are they applied?

183. Are post-emergence herbicides used?
     ____ Yes
     ____ No

184. Which weeds are they controlling?

185. When are they applied?

186. Are insecticides used to control insect pests?
     ____ Yes
     ____ No

187. If so, which ones?
188. Are fungicides used to control plant diseases?
   ____ Yes
   ____ No

189. If so, which ones?

190. Are reduced-risk pesticides used for controlling weeds, insects, and diseases?
   ____ Yes (1)
   ____ No (0)

191. If yes, which ones?

192. How are vertebrate pests controlled?

193. Which of the following records are kept?
   ____ Records of pest monitoring and occurrence (1)
   ____ Equipment maintenance records (sprayer calibration, etc) (1)
   ____ Pesticide application records (1)
   ____ Other (please specify)

194. May we have access to relevant records, including pesticide application records for the purpose of assessing the progress of the School IPM Inside and Out program?
   ____ Yes
   ____ No

Contact Person(s):

Comments / Notes (optional):
Getting Students Involved

195. Are plants used as part of the curriculum?
   _____ Yes (1)
   _____ No (0)

196. Are vegetables or fruit trees grown as part of the curriculum?
   _____ Yes (1)
   _____ No (0)

197. Do students participate in the planting or maintenance of plants on campus?
   _____ Yes (1)
   _____ No (0)

Comments (optional):