Forestry & Sustainability Lab C. Kohn, Waterford WI

Name: Hour Date:

Date Assignment is due: Why late? Score: + ✓ -  
 Day of Week Date If your project was late, describe whyYou have been asked by your community to examine a local forest in a public park. This forest has many old trees that are showing signs of disease. Most of the trees are same species as each other and very few new trees or new species of trees are growing in this ecosystem. A lot of new trees are competing with weeds and invasive plants for nutrients and sunlight. Some trees are also being strangled by an excessive amount of vines. Very few people have been using this forest because it is overgrown and looks like it has been neglected. The leaders of your community have the following questions:

1. Describe three things that are wrong with this forest:  
     
   1   
     
   2   
     
   3
2. What are three recommendations that you have for improving this forest?   
     
   1   
     
   2   
     
   3

Foresters have some techniques for changing a forest. These include:

* Clear Cutting – if a forest is too overgrown with old trees, foresters may completely clear large sections of that forest in order to give sun-loving trees the chance to grow from seed.
* Selective Harvesting – if a forest has a healthy mix of trees, a forester may choose specific older or damaged trees to remove in order to give the more productive trees a greater chance to grow and mature.
* Timber Stand Improvement – if a forest is not healthy at all, a forester may wait to harvest trees. In the meantime, he or she will work to improve the forest habitat by removing dying or diseased trees, eliminating weeds and invasive species, and check for harmful insects and diseases.

1. For the forest described above, which of these techniques do you think would be most useful?   
     
   Technique: Why?
2. If the choice you made above is successful, what do you think would be the next technique a forester would use?   
     
   Technique: Why?

On the next page, you’ll find a rubric to use in an actual forested area. Visit a nearby forest (such as a school forest or park) and use the rubric to assess this wooded area. You’ll be playing the part of a forester and you will take into account all of the things that a forester must consider. For each category, assign a score. Then calculate the total score and percent score for this forest and assign a grade to this forested area. Finally, answer the questions below.

1. For the forest you visited and assessed, which of these techniques (Clear Cutting, Selective Harvesting, Timber Stand Improvement) do you think would be most useful?   
     
   Technique: Why?
2. If the choice you made above is successful, what do you think would be the next technique a forester would use in this particular?   
     
   Technique: Why?

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| **Criteria** | **Score** | **Healthy (2 points)** | **Unhealthy (1 point)** | **Very Unhealthy (0 points)** |
| **This forest has a mixture of tree species.** |  | There are lots of different kinds of trees. | There are only a few kinds of trees. | There are only two or three species of trees. |
| **This forest has a healthy understory.** |  | There are species of young trees and bushes below the large mature trees. | There are some small wooded species and grasses, but not much. | There is no understory in this forest. |
| **This forest has minimal impact from invasive species.** |  | There are no invasive species that can be found. | There are a few invasive species. | There are large numbers of invasive species. |
| **This forest has minimal impact from disease** |  | There are no diseased or dying trees that can be found. | There are a couple trees missing their leaves or rotting. | There are numerous leaf-less trees or standing rotting trees. |
| **This forest has a mixture of young and old trees.** |  | There is an even mix of young and old trees. | There are mostly old trees. | There are only old trees. |
| **This forest has minimal impact from human development and pollution.** |  | The forest is unaffected by human activity. | The forest is a little impacted by human activity. | The forest is totally affected by human activity. |
| **TOTAL** |  | *To calculate your percentage score, divide your total score by 12.* | **Percentage Score** |  |

Note: a fantastic resource for identifying invasive species can be found from the WDNR at <http://dnr.wi.gov/topic/Invasives/documents/WI_common_inv_Montage(3-25).pdf>