Problem Set 2, part 3
Introduction to Environmental and Resource Economics, October 19, 2004
Due Oct. 25

1. Return to the "market for cookies" problem (Problem 3, due Oct. 12).

   (a) Suppose that due to high budget deficits, the government is no longer able to subsidize cookie production. Passers-by have gotten used to he pleasant smells, and attempt to organize to subsidize the bakers. On your graph, identify the most likely per-cookie subsidy that all would agree to. (We can call it a "Coasean" subsidy.)

   (b) Would the total cost of the "Coasean subsidy" be lower than the orgininal subsidy program? Why or why not?

   (c) The cookie subsidy program's success depends on all passers-by contributing their part of the subsidy in a timely fashion. Explain potential probelms that could occur. What are the possible results of these problems?

2. Return to the "house along the river" problem (Problem 4, due Oct. 12).

   (a) Suppose that the factory had the legal right to pollute. Show how bargaining between you and the factory could lead to the socially optimal solution. Demonstrate graphically your willingness to pay to reduce pollution and the factory's willingness to accept.

   (b) What is a possible total payment (for the move from the free market to the socially optimal solution) that would be acceptable to you both? How are the gains from trade divided at your solution?

   (c) Suppose, alternatively, that you had the right to clean water, and the factory had to negotiate with you over a payment for you to accept pollution in order to increase production from the socially optimal level. Show how bargaining between you and the factory could lead to the socially optimal solution. (Hint: This is a bit challenging, but start by assuming that no pollution is allowed, meaning no production is allowed, and demostrate willingness to pay on the part of the factory and willingness to accept on your part to increase production from there.)

   (d) Explain how high tranaction costs might change your answer above. What might the transaction costs be? How how would transaction costs need to be in order for a Coasean bargain to not be possible?

3. Read the articles about the conflicts between rice and cotton growers in central California. Do you think there is potential for a Coasean solution to this problem? What factors might favor it? What might stand in the way?