

SOILS

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Outlet Development: Who Pays?

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When a group of people recognize a common need for a drainage outlet, they are faced with the problems of developing a suitable organization (a drainage district) and of fairly assessing the proportion of the project cost to each member of the group (usually of the landowners). The second problem is often a major one because landowners in the potential district want to know what their costs are likely to be; they usually want to know *before* they consent to become a member of a drainage district.

One of the first steps is to prepare a map showing all of the land holdings affected by the proposed drainage outlet and the approximate routing of the proposed outlet. Such a map should be prepared on base maps, which are generally acceptable. Base maps can often be obtained from the county planning department or perhaps from the Soil and Water Conservation District office. Land ownership should be carefully plotted on the map, and the boundaries should be checked with each of the landowners, both to prevent errors and to secure landowner approval of the plotted boundaries.

After the map is prepared and the location of the proposed drainage outlet is plotted, it is possible to make preliminary estimates of the *propor-*

tion of the cost that should be paid by each landowner. A sample property map is shown here.

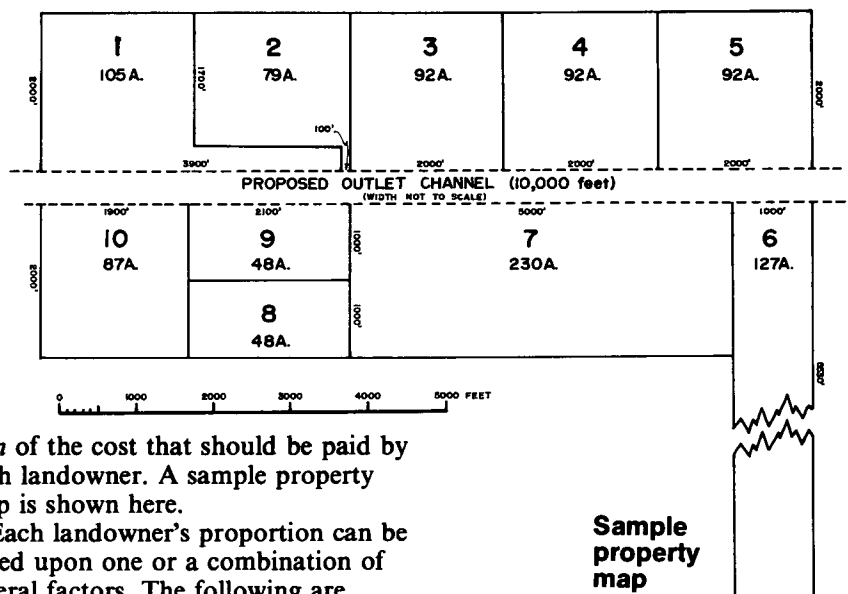
Each landowner's proportion can be based upon one or a combination of several factors. The following are some possible ones:

- The extent of land frontage along the proposed outlet,
- The total acreage of each involved landowner,
- The total cropland or potential cropland in the project,
- The total cropland or potential cropland in an "outlet corridor."

Advantages and disadvantages of each of these factors must be considered, and the best solution (usually a compromise of some kind) must be selected by the landowners who will be affected.

Land Frontage Along the Proposed Outlet

The relative cost can be based on frontage along the outlet. If the outlet channel is 10,000 feet long, there will be 20,000 feet of frontage. Each landowner's share is based on his or her frontage. If a landowner has 1,000



feet of frontage, the share becomes 1,000/20,000; or 5 percent. If the frontage is greater or smaller, the percentage changes in proportion.

Table 1 shows the relative costs for the 10 properties in the sample map.

Advantages:

1. The approach is easy to calculate;
2. It is easy to explain and understand; and
3. It is directly related to potential benefits.

Disadvantages:

1. It does not consider the quality of the land adjacent to the outlet;
2. It does not consider farm shape. (Would farmer 2 be paying a fair share?)

The Total Involved Acreage of Each Landowner

This approach assumes that all of the involved acreage ultimately drains

Table 1. Relative costs for 10 landowners on proposed outlet

| Farmer: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------|-------|------|-------|-------|-------|-----|-----|----|-------|-------|
| Frontage feet: | 3,900 | 100 | 2,000 | 2,000 | 2,000 | 100 | 500 | 0 | 2,100 | 1,900 |
| Relative cost: | 19.5% | 0.5% | 10% | 10% | 10% | 5% | 25% | 0% | 10.5% | 9.5% |

to the proposed outlet and that any acreage that does not drain to the outlet is excluded. Since these conditions often occur in a watershed district project, they provide another means of assigning the proportion of costs to be assumed by each landowner.

Advantages:

1. This approach relates more directly to the farm as a business unit;
2. It avoids problems of farms with disproportionately small frontages (as farm 2 in the example); and
3. It is relatively easy to calculate and explain.

Disadvantages:

1. It does not distinguish differences in land quality (acres in wetlands, swamp, or stony land are not adjusted);
2. It does not distinguish differences in farm layout (Should farmer 6 pay as much as farmer 5?); and
3. It assumes all of the land can be drained to the proposed outlet with equal ease (at about the same cost).

Table 2 shows the relative costs for 10 landholders if this approach is used.

Questions:

1. Is it fair to charge the owner of property 6 more than the owner of property 5 (assuming the soils are the same)?
2. Is it fair to charge the owner of property 2, who has limited access to the outlet, the same cost per acre as property owner 1, who has much more access?

3. Suppose a property owner has 40 acres of very stony soil. Should that be assessed the same as more productive soils?

Total Cropland or Potential Cropland in the Project

This approach bases the costs on the most productive kinds of land—land used for crop production and land that could be converted to cropland. It assumes that, because of the outlet, some land uses would shift (perhaps from pasture or brushland to cropland).

Advantages:

1. This approach bases payment on potential benefit, and
2. It removes land that would not be benefitted.

Disadvantages:

1. It requires soil maps to judge potential cropland, and
2. Decisions on potential cropland are subject to some challenges.

Total Cropland or Potential Cropland in an "Outlet Corridor"

This approach not only considers the land that would or could be benefitted, but compensates for those acres that may be remote from the outlet.

Advantages:

1. Only the lands in a specific corridor are evaluated,
2. The corridor width can be set by a group decision,

3. Farms of unusual shape may be assessed more equitably.

Disadvantages:

1. The choice of corridor width is always subject to criticism,
2. A consensus about the appropriate corridor width may be difficult to obtain,
3. The corridor may include small holdings of land that do not receive direct access to the outlet,
4. The approach requires judgment of what constitutes potential cropland.

Example: The corridor width could be specified as 2,000 feet on either side of the outlet (channel). (Since this is a common dimension in the example, it seems reasonable.) If so, landowner 8 would be expected to pay part of the cost, but would receive no access to the outlet. A 2,000-foot width (1,000 feet each way) would compensate landowner 6, who has land that is quite remote from the outlet. In either case, landowner 2 would be partially compensated for the restricted frontage on the outlet.

Which System Should be Used?

There's no single answer. One of the approaches outlined here may be used, or elements of them may be combined. The important matter is to achieve agreement among the landowners before the system is used. None of these systems will work unless the landowners agree to accept the results.

Table 2. Relative costs for 10 landholders (1,000 acres in watershed)

| Farmer: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------|-------|------|------|------|------|-------|-------|------|------|------|
| Acres: | 105 | 79 | 92 | 92 | 92 | 127 | 230 | 48 | 48 | 87 |
| Relative cost: | 10.5% | 7.9% | 9.2% | 9.2% | 9.2% | 12.5% | 23.0% | 4.8% | 4.8% | 8.7% |

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