

D. Method Used to Calculate Cost Estimates: Select the appropriate option.

- 1. Project costs are based on completed design and competitive bid on the project. Construction components and costs above should be detailed. Provide documentation attached to this application.
- 2. Project costs are based on completed design with materials and labor costs based on similar, recently bid projects. Construction components above should be detailed. Provide documentation in this application.
- 3. Project design is not complete; however, the proposed project and costs are based on similar and recent projects and costs. Provide as much construction detail above as possible. Provide documentation for this method in this application.
- 4. Project design is not complete and the cost estimate is based on an average or a range of projects and costs. Provide as much construction detail above as possible. Provide documentation for this method in this application.
- 5. Project and costs are less specific than choices above. Provide explanation of cost estimates attached to this application.

E. Cost-Effectiveness

1. a. Explain how this project uses cost-effective and appropriate best management practices to achieve water quality goals. Provide supporting information and documentation for your statements (in attachments, if needed).

The primary benefit will be reduced nitrogen, phosphorous and bacteria to surface water through the elimination of winter manure spreading and direct runoff from farmstead feed lot areas. All five of the proposed substitution locations currently winter spread or headland stack manure in locations that include inappropriate areas during the winter months. None of the locations currently have a Nutrient Management Plan. A secondary benefit will be a reduced threat to groundwater contamination by installing a concrete Liquid Tight Manure Storage Facility that meets current standards and applying all manure according to a NRCS Nutrient Management Plan. The real cost benefit to this substitution is that we achieve the same type of feed lot total containment and manure storage that was proposed for the original farm on 5 different farms in the same HUC 12 (303D proposed) for the same \$129,920 by partnering with NRCS. These are mostly small farms that normally would have financial difficulty implementing a total containment Agricultural waste system without government cost share assistance.

- b. If this project includes a manure storage facility, the state-share should be based on manure storage capacity to meet current (and insignificant growth) AU needs. In the space below, explain the facility size and the duration of storage that is proposed in this project to achieve water quality goals. Reference the NMP, AUs, manure generation, availability of spreadable acres, months of storage, etc.

The animal numbers for the original TRM Grant manure storage equal 135 animal units and manure and process waste water was estimated at 833,322 gallons per year from all sources. The five proposed manure storage units would be for a combined 579 animal units with storage of manure, animal lot runoff and milk house waste of 3,538,000 gallons. Each of the five farms has mandatory Nutrient Management planning associated with the manure storage contract and county ordinance. Some of the 5 EQIP manure storage contracts are for 300 days storage. In the cases where NRCS EQIP funding is for greater than 180 days of storage the TRM contract portion would be prorated to reflect 180 days.

2. If other alternative management measures were evaluated, list them here and describe why the alternative(s) is not being recommended.