## Chapter 103E Drainage System Repair Cost Apportionment

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### General description of how repair cost apportionment is done under current drainage law

1) Benefited properties and benefits of a drainage system are determined by a team of 3 viewers, when appointed by a drainage authority for a "drainage project", for a separate redetermination of benefits and damages, or for certain other drainage proceedings.
2) Repair costs are apportioned pro rata, based on the benefited properties and benefits of record. (i.e., The cost of a repair is split between all benefited properties in proportion to the determined benefits of each property compared to the total benefits of the drainage system.)
3) Benefited properties and benefits remain unchanged until a redetermination of benefits and damages.
4) A repair anywhere on a drainage system is paid for by all benefited properties of the drainage system.
5) A repair hearing is only required for a petitioned repair, which also requires the appointment of an engineer to prepare a repair report.
6) Appeal of a repair cost apportionment that is not done in accordance with drainage law can be pursued through district court and/or the court of appeals under Section 103E.095, based on case law.

### How it could be done using the DWG proposed Drainage System Repair Cost Apportionment Option

1) For each repair cost to be apportioned, the drainage authority decides whether to use the existing benefits based method, or the relative runoff and sediment contribution method option. ("Relative" means in proportion to all property contributing to the drainage system.)
2) This option could only be used for repair cost apportionment.
3) If the relative runoff and sediment contribution method is chosen, the drainage authority appoints one or more persons qualified to use geographic information system (GIS) technology and applicable digital information to equitably apportion repair costs. Digital information to be used includes conditioned digital elevation data, soils data, land use data, and property, road, and utility corridor identification data, together with appropriate on-site verification.
4) The option would define property contributing runoff to the drainage system, together with the relative runoff contribution and the relative sediment contribution of each contributing property. Runoff is a measure of the use of the drainage system capacity and sediment is a measure of contribution to the need for a drainage system repair via cleanout.
5) The GIS method developed as a proof of concept for the option uses a 5-meter by 5-meter grid for analyses across the drainage area of a drainage system. It can put more or less emphasis on runoff contribution and sediment contribution, depending on the type of repair (e.g., culvert replacement, erosion control, or sediment cleanout). The method considers storage in wetlands that reduces the runoff of the wetland area, and evaluates road corridors based on road type and the applicable right-of-way width.
6) This option would require preparation of a repair cost apportionment report and a hearing on the report.
7) The repair cost would be apportioned pro rata, based on the relative runoff and sediment contributions of each property contributing runoff to the drainage system.
8) This GIS method could be updated based on the current land use and associated digital data. Update could be for a new repair, or in response to a request by an assessed landowner, if the drainage authority determines that the repair cost apportionment report of record no longer reasonably reflects current land use, runoff and sediment contributions.
9) Appeal of a repair cost apportionment under this option would be in accordance with Section 103E.095.