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| Client: | Any interested land manager near waterways |
| Designers: | TRAILS Students |
|  | Problem: |
|  | All streams need a buffer of riparian vegetation to prevent harmful erosion and to filter contaminants from entering the stream. These riparian zones take many years to develop on the edges of a stream and, depending on the size of the waterway, may be very large in size. For many reasons, these riparian zones have disappeared causing different harmful changes in streams and rivers. Not every property along a waterway has the room for replanting natural vegetation and if there is space, the harm may be done before the natural vegetation can regrow. |
|  | Design: |
|  | Work with two team members to design and build prototype of a device that can be used to mimic the functions of a natural riparian zone. You will test your prototype proving the functionality to minimize the negative effects of stream erosion. After you have built and tested your protype, you will present your idea and how to reconstruct it on a practical scale to the class. Your design will have to be something that can be constructed and installed in a real-life scenario. |
| Constraints: | 1. Your design must be a 3D printed prototype 2. Your design must be testable on our class erosion testing table 3. Your design must biomimic the natural riparian functions of your target waterway 4. Your designs must have a practical and real plan of implementation |