



City of Broken Arrow

Request for Action

File #: 19-1313, **Version:** 1

Broken Arrow Drainage Advisory Committee
Meeting of: 10/28/2019

Title:

Consider and discuss possible action to recommend to City Council the clearing of the creek and drainage way of downed trees and debris in the East Branch of Haikey Creek near the Pembroke Park retention pond (Case 19-003)

Background:

The Pembroke Park subdivision was platted in April 1996. As a part of the plat, an area in the northeast corner of the subdivision was placed in a reserve area to serve as a private park for the subdivision. Within the park is a private retention pond in which there is no apparent public stormwater sewer system discharging into it. The pond appears to be spring feed. It is located downhill from the park, but several feet above the East Branch of Haikey Creek.

The creek appears to have undercut some of the embankment of the pond and the corresponding vegetation located along the outer bank of the pond. The portion of the embankment that held up a large tree has failed and fallen into the creek taking some trees and vegetation with it.

The Homeowners Association (HOA) has met with staff and examined the damage. The HOA is concerned that continued erosion will cause a loss of the embankment and jeopardize the safety of the residents and of the pond.

Staff has examined a floodwall structure as a potential remedy to protect the pond. The major issues with this approach is cost versus the actual benefit. The top of the embankment is 25 feet to 30 feet or so above the creek bed. Any work along the creek will require a 404 permit. The embankment is heavily vegetated and most likely will require extensive clearing and mitigation to construct a structure.

Based upon similar construct efforts of smaller scale, the Staff believes that the costs associated with a complete protection effort will far outweigh the actual benefits gained. Therefore, joint participation in a flood wall project is not recommended. However, Staff recognizes that the downed trees need to be removed or they will continue to create adverse impacts on the embankment. In addition, some large diameter rip rap along the toe of the embankment may greater reduce the continual erosion at that location.

Cost: \$10,000

Funding Source: 2018 GO Bond, Proposition 6

Requested By: Patrick Wilson, P.E., Stormwater Division Manager

Approved By: Engineering and Construction Department

Attachments: Drainage Report, Exhibits

Recommendation:

Drainage Advisory Committee recommends the clearing of the creek and drainage way of downed trees and debris in the East Branch of Haikey Creek near the Pembroke Park retention pond not to exceed \$10,000.