Protection TMDLs in Kansas

My Predecessors’ Shoes

- Presentation in 2018
- Fits mold well of protection-based goals
- Original example was asked for by local stakeholders
- Issues observed during high runoff event even though not enough occurrences to warrant 303(d) listing
Where are we going?

- Vision 1.0 metrics were 100% achieved before I took the reigns
- Vision 2.0 discussions have been broad:
  - Continue TP TMDLs not under Vision 1.0
  - Go to Biological Metrics (MMI)?
  - Redo dated TMDLs?
  - Trash TMDL?
- Priority Metrics through 2024 include TP TMDLs not under Vision 1.0, also trying a hybrid restorative **and** protective TMDL
Hybrid Rationale (protection + preemptive)

- KDHE writes TMDLs by the watershed, previous TMDLs have included segments not listed as impaired within a TMDL watershed before
- If we require TP reductions from facilities in impaired watersheds only, is it fair for non-impaired watersheds? Should we wait until there is a TP impairment?
- What happens if downstream entities adopt numeric nutrient criteria?
- No ATTAINS credit for non-impaired segments
Caney River TMDL

- All that follows are preliminary results
- TMDL for TP and Nitrate
- No impairments for TP on 303(d) list
- Several segments with Nitrate listing
Caney TMDL – Current Conditions

- >1 exceedance in past 10 years = impairment
  (Domestic Water Supply Use)
Caney TMDL – Current Conditions

- If median TP is > 0.201 mg/L, impairment (narrative criteria interpretation)
Caney TMDL – NPDES Dischargers

<table>
<thead>
<tr>
<th>Permittee</th>
<th>Facility Type</th>
<th>Receiving Station</th>
<th>Design Flow (MGD)</th>
<th>Ammonia (mg/L)</th>
<th>TP (mg/L)</th>
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<tbody>
<tr>
<td>City of Caney</td>
<td>Oxidation Ditch</td>
<td>SC572</td>
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<td>(2004-2021) 2.11</td>
<td>(2006-2021) 3.62</td>
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</table>

- Caney (city of) is largest municipality in watershed, population ~1,800 and has been ~2,000 or less for the past 30 years
Caney TMDL – Soil Permeability and Land Use

A tale of two watersheds with forested in east and herbaceous west.
Priority watersheds guide our 319 group’s 9-element plans.
Protection TMDLs in Kansas

Thank you/Questions

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