Pitfalls in Permitting
Here we go yo! So what’s the scenario?!?

- Nitrate-N MCL of 10 mg/l
- 3 TMDLs

<table>
<thead>
<tr>
<th>Species</th>
<th>Cedar River</th>
<th>Des Moines River</th>
<th>Raccoon River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen</td>
<td>91%</td>
<td>&gt;90%</td>
<td>90%</td>
</tr>
<tr>
<td>NPS Load</td>
<td>91%</td>
<td>&gt;90%</td>
<td>90%</td>
</tr>
<tr>
<td>Facility Count</td>
<td>95</td>
<td>74</td>
<td>61</td>
</tr>
<tr>
<td>Year Complete</td>
<td>2007</td>
<td>2009</td>
<td>2008</td>
</tr>
</tbody>
</table>

- Point source intended to be capped
Pitfall #1 – Intent vs Reality

• The Cedar River TMDL used 4 methods (Type 1-4) to calculate the total nitrogen effluent from an existing NPDES permitted facility.
  – Type 1 – 0.027 lbs/day TKN x 2000 census population
  – Type 2 – Per Capita TKN + 30d average industrial ammonia mass
  – Type 3 – CDLs used Per Capita TKN and days of discharge
  – Type 4 – Effluent monitoring

• The Des Moines River and Raccoon River TMDLs used 3 methods
  – Type 1 – Design influent TKN from construction permit
  – Type 2 – 0.027 lbs/day TKN x 2000 census population
  – Type 3 – Per Capita TKN + 30d average industrial ammonia mass
Pitfall #1 – Intent vs Reality Cont.

• Several facilities underestimated now require upgrades
• Flipside: Some can expand 3 fold

• What to do?
  – Implement based on intent or as exactly worded?
  – Reopen TMDL to correct?
  – Allow facility to recalculate PS WLA using actual data?
  – Find wiggle room in conversion of TMDL WLA to permit limits (e.g. daily load conversion to AML and MDLs)?
Pitfall #2 & #3– New & Missed Facilities or Outfalls

• No reserve
• Missed cities, water treatment plants, ethanol plants, quarries, etc
• Can’t cause or contribute to the impairment

What to do?
– Reopen TMDL?
– Shut them down?
– Allow facility to calculate a PS WLA using actual data?
– Calculate how much wiggle is left in overall PS load cap?
– Implement on concentration basis (e.g., 9.5 mg/l)?
Pitfalls of the Pitfalls

- Time lost
- Legal uncertainty for point sources
- Frustration for everybody involved
- Lasting effects
- No really good solutions to fix old issues
What questions do you have?