The oil and gas industry has an issue: what to do with all that produced and flowback water -- in broad terms the water that comes out of the earth along with oil and gas. It can include old brackish water, flow-back water that could have dangerous hydraulic fracturing chemicals and remnants of oil and gas. According to a recent study, the average oil and gas well in the U.S. produces about a million gallons of water per year, though the amount can vary widely by region, with areas like the Eagle Ford having much lower amounts of produced water than the Permian Basin. Indeed, one recent study found that in the Permian Basin, the water needs will grow by some 400% over the next several years, and that by 2023 the industry will inject about 5 billion barrels of water per year, assuming 8,200 new horizontal wells injecting an average of 600,000 barrels of water each. And coming back will be over 15 billion barrels per year of produced water plus about 5 billion barrels of flowback water. That's more than 20 billion barrels of water produced for only 2 billion barrels of oil.

In Texas, most “produced” and flowback wastewater is sent underground through on-site or commercial injection wells. While much of this injection is done safely, there is no guarantee that problems of improper casing or cementing, movement of wastewater undergrounds, spills, and seismic activity won’t occur and these are all potential or real problems. While the Sierra Club does support looking at alternative means of reusing the wastewater - and in particular --favors its reuse in the oilfield itself as a way to reduce dependence on freshwater, we have serious concerns about HB 2545, which could give substantial tax breaks to oil and gas producers (or wastewater treatment facilities) that treat saline or brackish water to a certain standard. Some of this wastewater could end up in our streams and rivers, and if not treated properly, could impact aquatic life or even drinking water.

**Issues with the legislation**

First, there is no definition offered of freshwater in the proposed legislation, making it difficult to surmise what treatment levels will be required. We agree with our colleagues at the Environmental Defense Fund that the legislation should be improved with a definition of freshwater.

Second, the proposed tax breaks are substantial, essentially with some treatment allowing large subsidies for the value of the water, well above the market prices of water. The table
below suggests for an average well in the Permian that produces 2,000,000 gallons what the amount of the tax break would be for that one well (or permit holder).

<table>
<thead>
<tr>
<th>TDS Level</th>
<th>Tax break</th>
<th>Tax Break at 2,000,000 gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 TDS</td>
<td>50 cents per 1,000 gallons</td>
<td>$1,000</td>
</tr>
<tr>
<td>30,000 TDS for at least 50 percent of source water</td>
<td>$1 per 1,000 gallons</td>
<td>$2,000</td>
</tr>
<tr>
<td>50,000 TDS for at least 50 percent of source water</td>
<td>$5 per 1,000 gallons</td>
<td>$10,000</td>
</tr>
<tr>
<td>90,000 TDS for at least 50 percent of source water</td>
<td>$17 per 1,000 gallons</td>
<td>$34,000</td>
</tr>
</tbody>
</table>

While $1,000 or even $34,000 might not seem like a huge tax break, when you consider the hundreds of wells owned by single companies in the Permian, the potential tax break is occurred, which may be way the fiscal note is indeterminate. In particular, we find the $17 tax incentive very high, and would suggest it be lowered to $10 per 1,000 gallons.

Third, the first levels of tax breaks may not be appropriate, since they would occur at the level of 5,000 TDS, which is considered “saline” water, but not brackish water. If the Legislature is going to offer tax breaks, they should offer them at much higher levels of TDS than 5,000. We would suggest eliminating this first level of tax breaks, or at least doubling the TDS to 10,000 TDS.

Finally, it should be noted that the proposed tax breaks can be transferred from one type of tax break to another, meaning that while the original tax break contemplated is for the franchise tax, the tax break can be “swapped” for oil or gas severance taxes. We are concerned when the state is actively considering using these severance taxes not only for education, but for road improvements that HB 2545 could have a fiscal impact on the state’s education and road needs.

In conclusion, the Sierra Club opposed HB 2545. If the bill is to proceed, we would suggest:

1. Doubling the first incentive level to 10,000 TDS;
2. Reducing the maximum incentive rate from $17 to $10;
3. Add a definition of freshwater;
4. Consider amending the transferability of the franchise tax to the severance tax.
We appreciate the opportunity to provide these brief comments.

Sincerely,

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