Eagle Mountain Sediment Surveys

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Eagle Mountain Recorded Lake Volumes

\[ y = -0.9782x + 211091 \]

\[ R^2 = 0.5492 \]

<table>
<thead>
<tr>
<th>Year</th>
<th>Historic Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>150,000</td>
</tr>
<tr>
<td>1938</td>
<td>160,000</td>
</tr>
<tr>
<td>1952</td>
<td>170,000</td>
</tr>
<tr>
<td>1966</td>
<td>180,000</td>
</tr>
<tr>
<td>1979</td>
<td>190,000</td>
</tr>
<tr>
<td>1993</td>
<td>200,000</td>
</tr>
<tr>
<td>2007</td>
<td>210,000</td>
</tr>
</tbody>
</table>

Baylor Study
- 2 Distinct Sediment Loads
  A. Delta Sediment Density – 98 lbs/ft³
  B. Pro Delta Sediment Density – 26 lbs/ft³
  C. Average Density – 40.4 lbs/ft³
- Historic Long Term Sed Rate:
  427.3 Ac-ft/yr → 376,000 tons/yr

Baylor EM Sediment Cores

TWDB EM Survey Data Collection Transects
EM Sedimentation Rates

- **Baylor Study**
  - Long term average 427.3 ac-ft/yr

- **New 2008 TWDB Survey**
  - Volumetric Survey = 179,880 ac-ft
    - Equates to 408 ac-ft/yr
  - Sediment Survey = 15,861 ac-ft
    - Equates to 214 ac-ft/yr

Eagle Mountain Recorded Lake Volumes

\[ y = -0.8479x + 208860 \]

\[ R^2 = 0.5571 \]
Sediment Conclusions

- TWDB Sedimentation Survey may only include pro-delta sediment areas.
- Delta sedimentation areas may be impossible to survey due to lack of water.
- Volumetric Survey values may account for delta sedimentation in addition to pro-delta areas measured by sed survey.