Aquifer Vulnerability Map of the Inyan Kara Group, Blackhawk Quadrangle

By
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**Definition of Vulnerability**

Aquifer vulnerability is the potential or likelihood that any contaminant could reach the ground-water supply, based on designated parameters described below.

**Areas of increased aquifer vulnerability due to the presence of on-site septic systems in the Inyan Kara recharge area.**

- On-Site Wastewater Disposal System (OSWDS)

<table>
<thead>
<tr>
<th>Density (number of OSWDS per sq. mi.)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>10 - 40</td>
<td>Medium to High</td>
</tr>
<tr>
<td>40 - 81</td>
<td>High to Very High</td>
</tr>
</tbody>
</table>

**Increased aquifer vulnerability due to the presence of roads (buffered 100 feet on either side) in the Inyan Kara recharge area.**

<table>
<thead>
<tr>
<th>Type of Road</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Paved Road</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Highway</td>
<td>High to Very High</td>
</tr>
</tbody>
</table>

**Geologic Units**

- **Inyan Kara Group Present in Subsurface**
- **Inyan Kara Group Absent**

**Explanations**

- **Recharge Area**
  - Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Confined units (Qc) consist of fine-grained sands, silts, and clays

- **Contact**
  - Solid where location certain; dashed where approximately located

- **Intermittent Stream**
- **Perennial Stream**
- **Lake**
- **Interstate**
- **Railroad**

- **Geologic Units**
  - Recharge Area: Unconfined units are fine-grained sands (Qsu) and silts (Qs), and confined units (Qc) consist of fine-grained sands, silts, and clays
  - Confined units (Qc) consist of fine-grained sands, silts, and clays
  - Contact: Solid where location certain; dashed where approximately located
  - Intermittent Stream: Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Perennial Stream: Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Lake: Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Interstate: Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Railroad: Unconfined units are fine-grained sands (Qsu) and silts (Qs)
  - Contact: Solid where location certain; dashed where approximately located

- **Color indicates varying degree of vulnerability; see "Definition of Vulnerability."**