

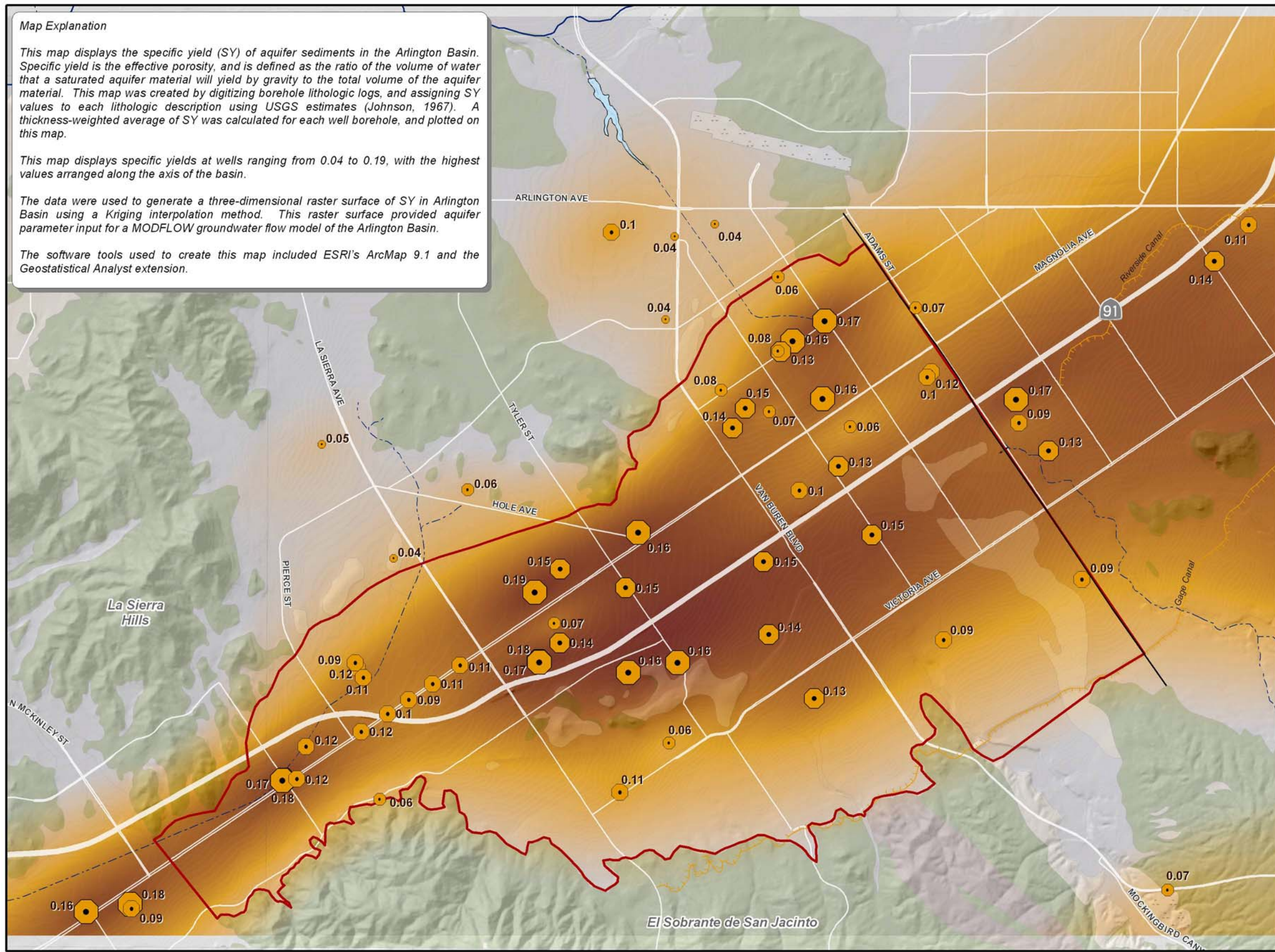
**Map Explanation**

This map displays the specific yield (SY) of aquifer sediments in the Arlington Basin. Specific yield is the effective porosity, and is defined as the ratio of the volume of water that a saturated aquifer material will yield by gravity to the total volume of the aquifer material. This map was created by digitizing borehole lithologic logs, and assigning SY values to each lithologic description using USGS estimates (Johnson, 1967). A thickness-weighted average of SY was calculated for each well borehole, and plotted on this map.

This map displays specific yields at wells ranging from 0.04 to 0.19, with the highest values arranged along the axis of the basin.

The data were used to generate a three-dimensional raster surface of SY in Arlington Basin using a Kriging interpolation method. This raster surface provided aquifer parameter input for a MODFLOW groundwater flow model of the Arlington Basin.

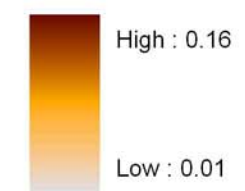
The software tools used to create this map included ESRI's ArcMap 9.1 and the Geostatistical Analyst extension.



**Specific Yield at Well Sites**

- 0.02 - 0.05
- 0.051 - 0.08
- 0.081 - 0.12
- 0.121 - 0.15
- 0.151 - 0.19

**Interpolated Specific Yield**



**Geology**

- Recent Fill Material
- Quaternary Alluvium & Unconsolidated Sediments
- Tertiary to Quaternary Consolidated Sedimentary Bedrock
- Cretaceous Igneous Bedrock
- Mesozoic & Paleozoic Metamorphic Bedrock

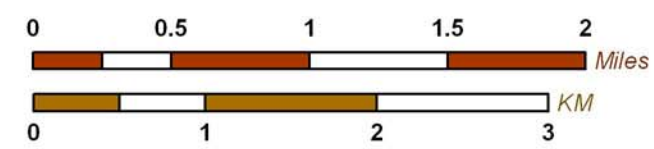
**Other Features**

- Groundwater Flow Model Domain
- Rivers and Streams
- Groundwater Divide



Produced by:  
**WILDERMUTH**  
 ENVIRONMENTAL INC.  
 23692 Bircher Drive  
 Lake Forest, CA 92630  
 949-420-3030  
 www.wildermuthenvironmental.com

Author: AEM/ETL  
 Date: 20061012  
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Feasibility Study for the  
 Expansion of the Arlington Desalter  
 Task 1

**Specific Yield**  
 Arlington Basin

**Figure 6**