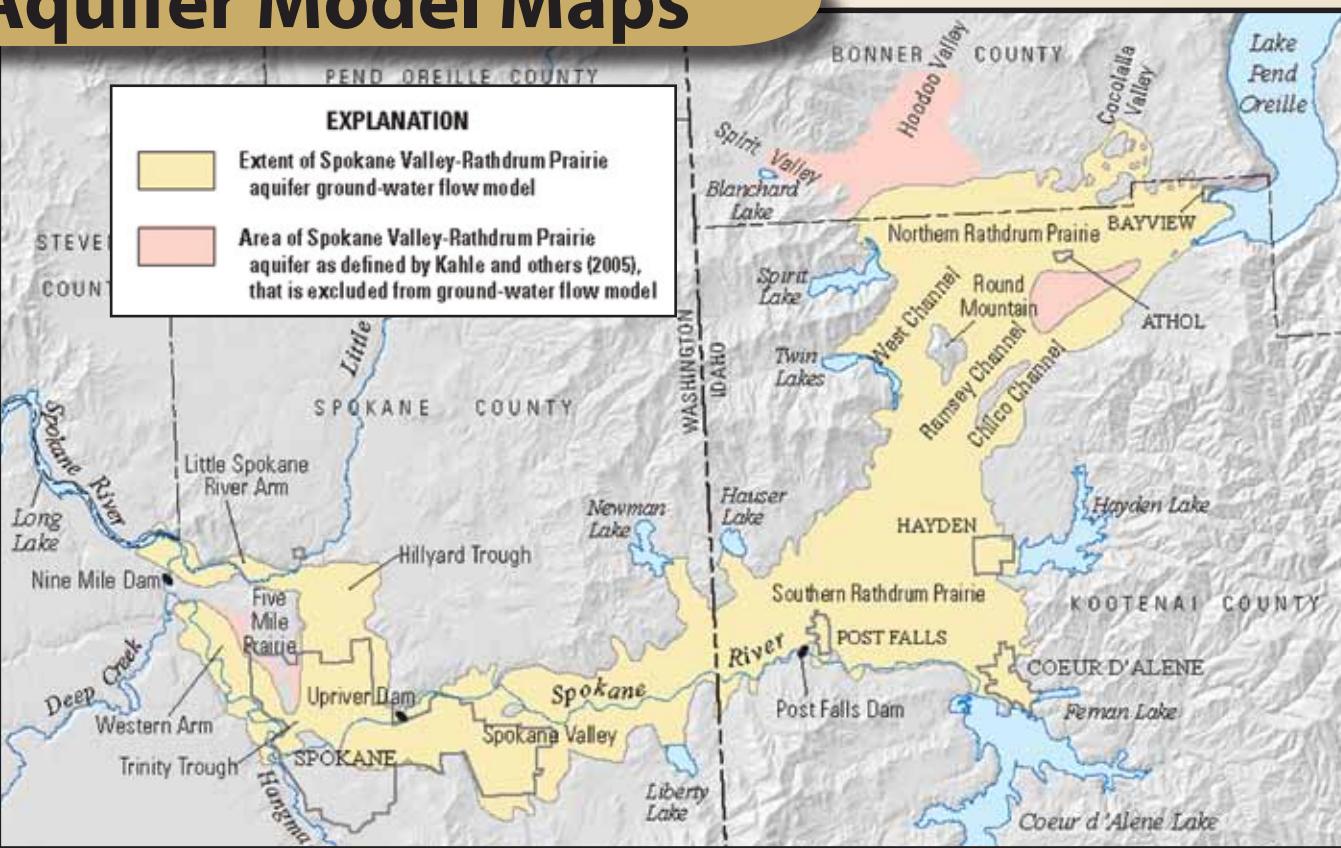
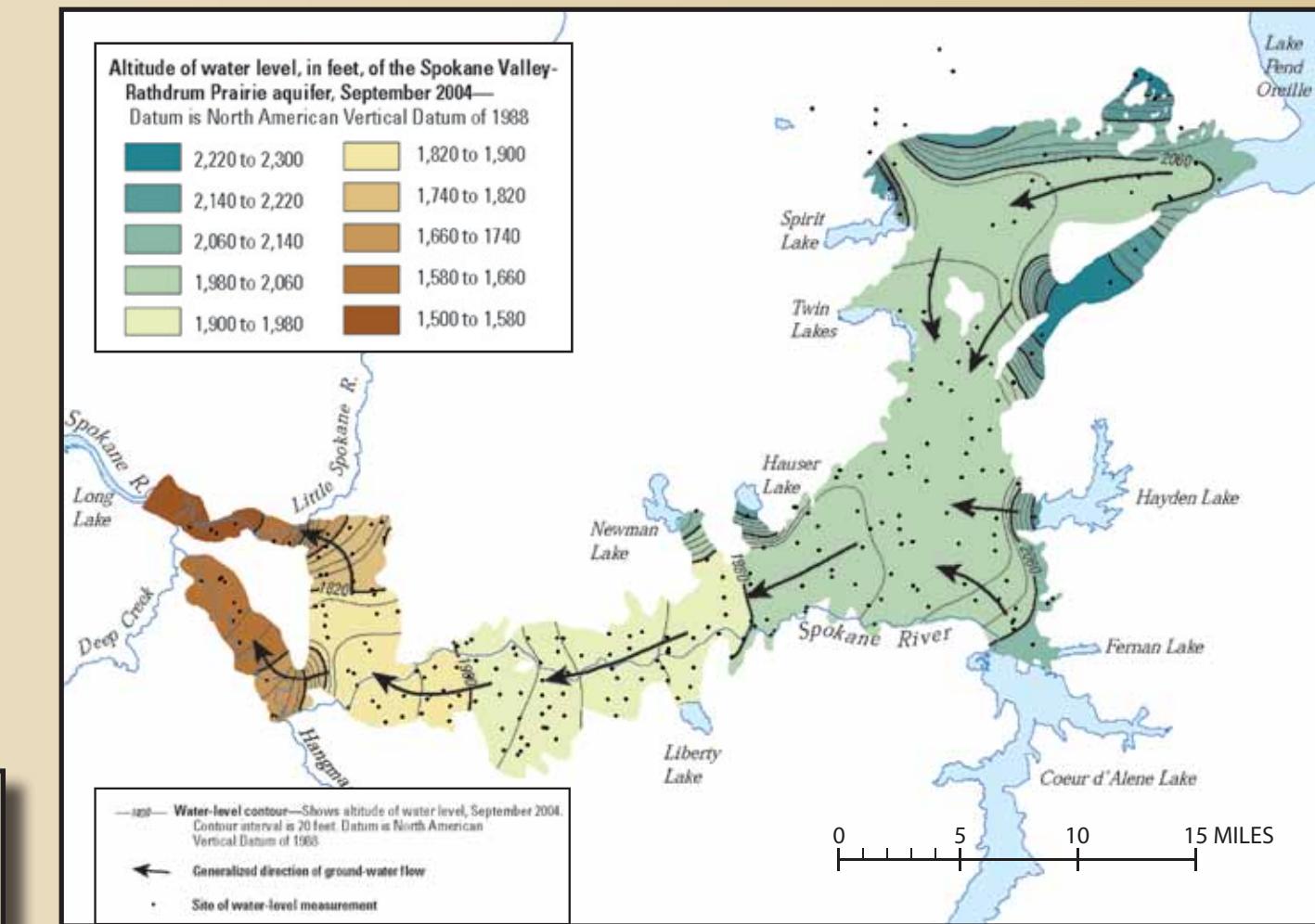
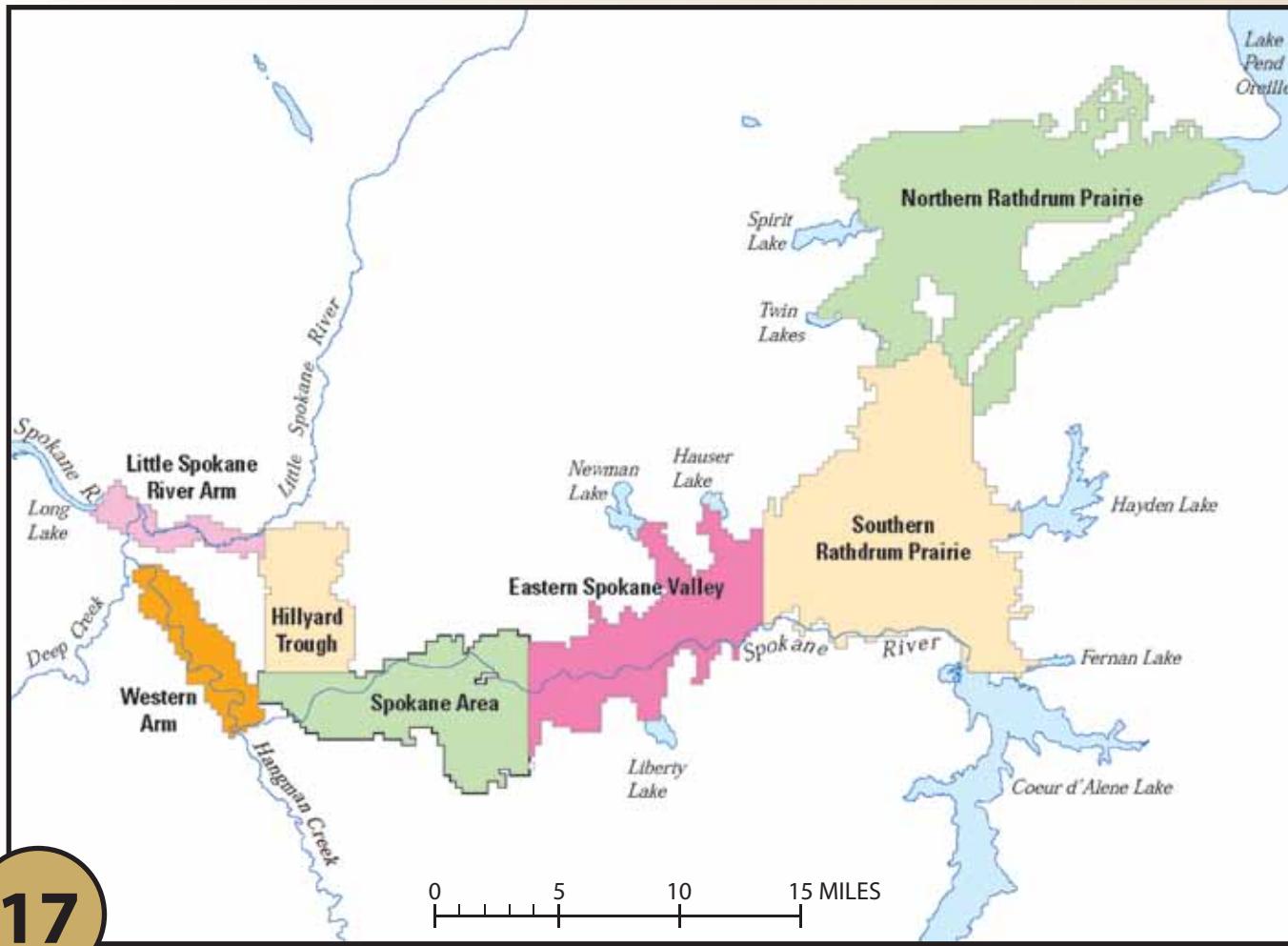


# Aquifer Model Maps



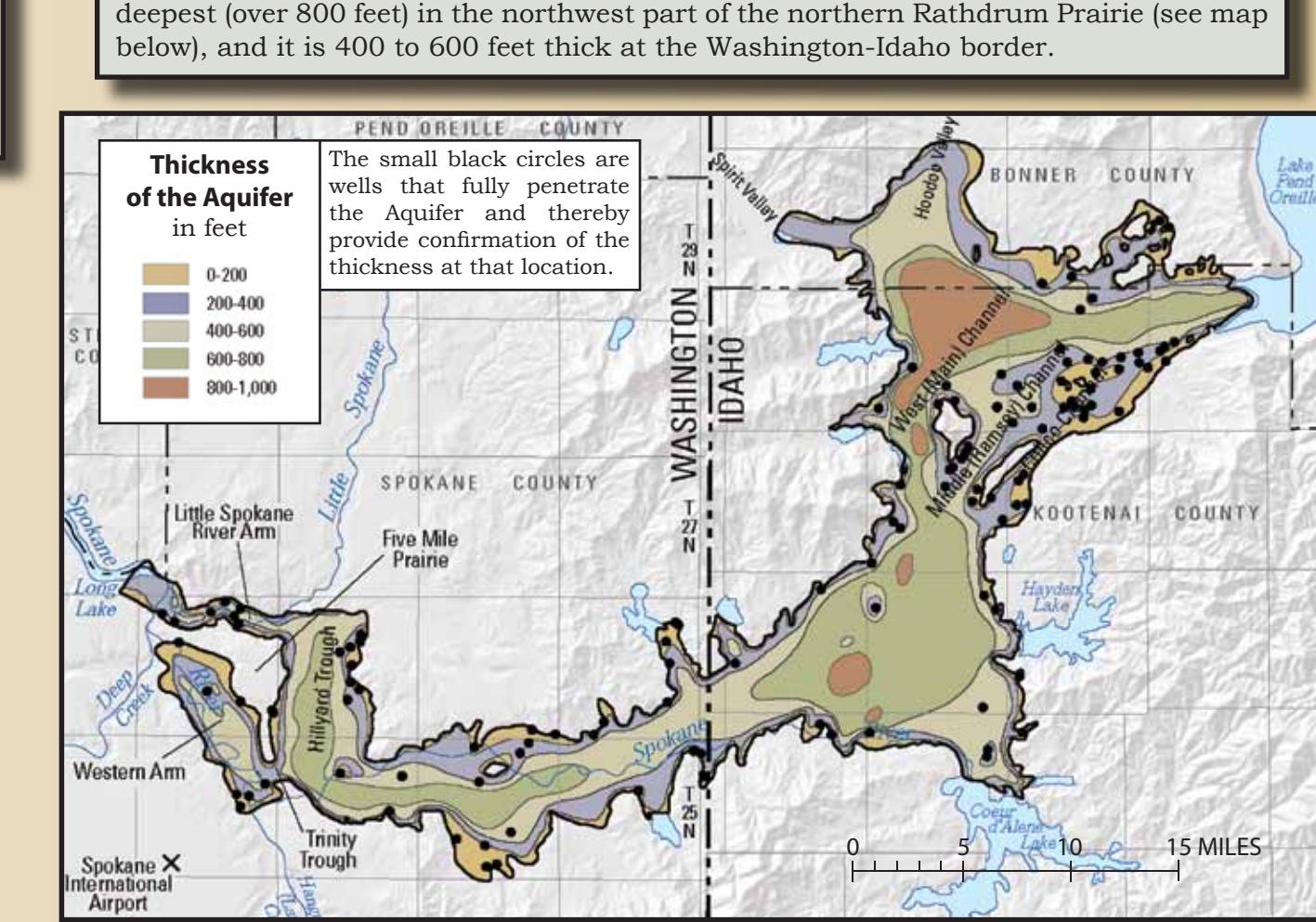
## Aquifer Model Extent

Certain areas within the Aquifer extent were not included in the model because insufficient groundwater information was available in those areas. The map above shows the aquifer extent with areas (in pink) that are excluded from the groundwater flow model. The Aquifer was divided in the model (see map below) into areas called "subregions" in order to calculate the Aquifer water budget. The USGS MODFLOW computer model was adapted to simulate groundwater flow in the Aquifer.

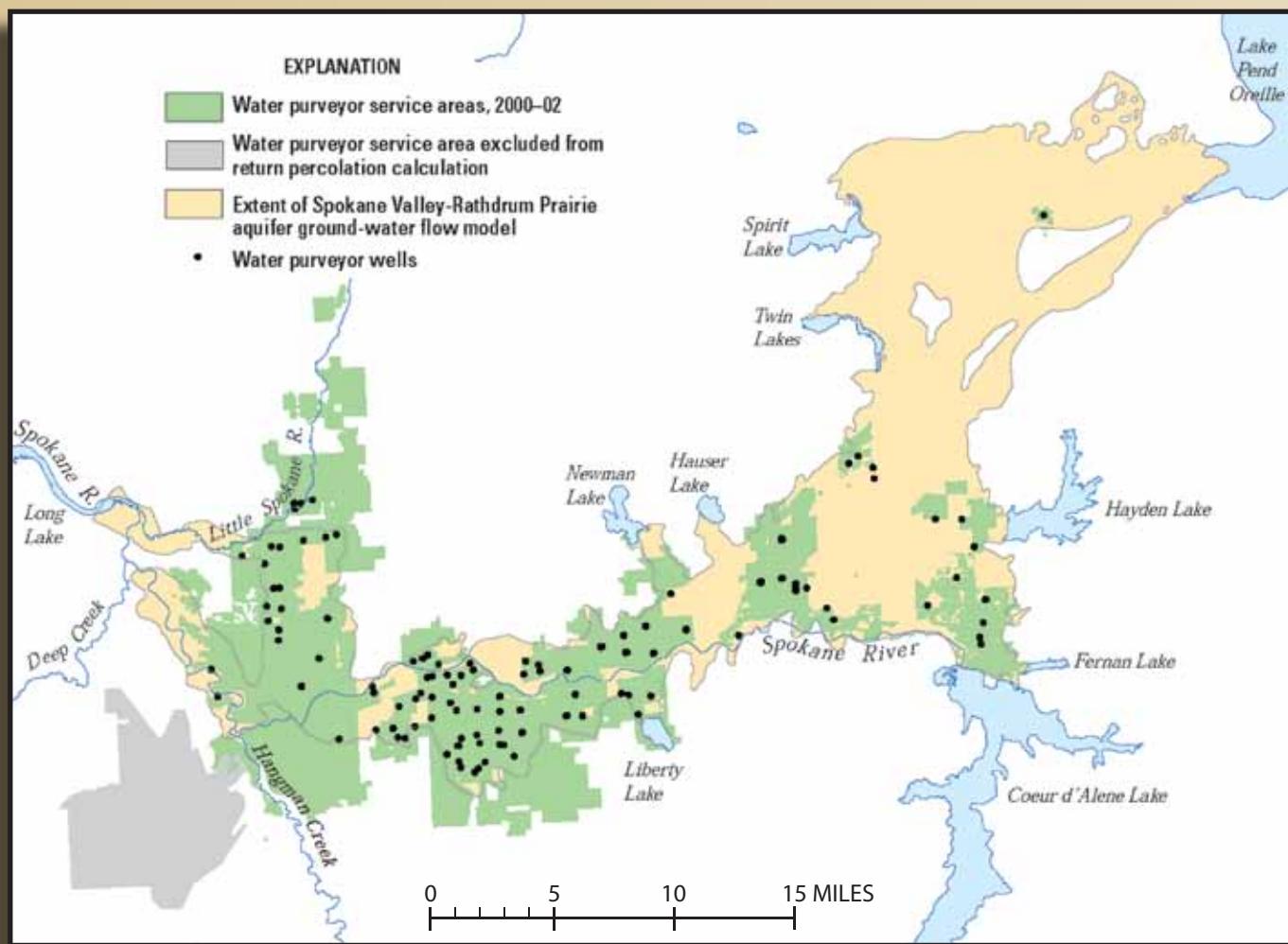


## Aquifer Flow Model

The maps on this page and the following page graphically represent the information used to construct a computer model for the Aquifer. The scale of the model and the level of detail were selected for analysis of aquifer-wide water supply. The MODFLOW-2000 computer model was adapted to simulate groundwater flow in the Aquifer.



# Aquifer Model Maps

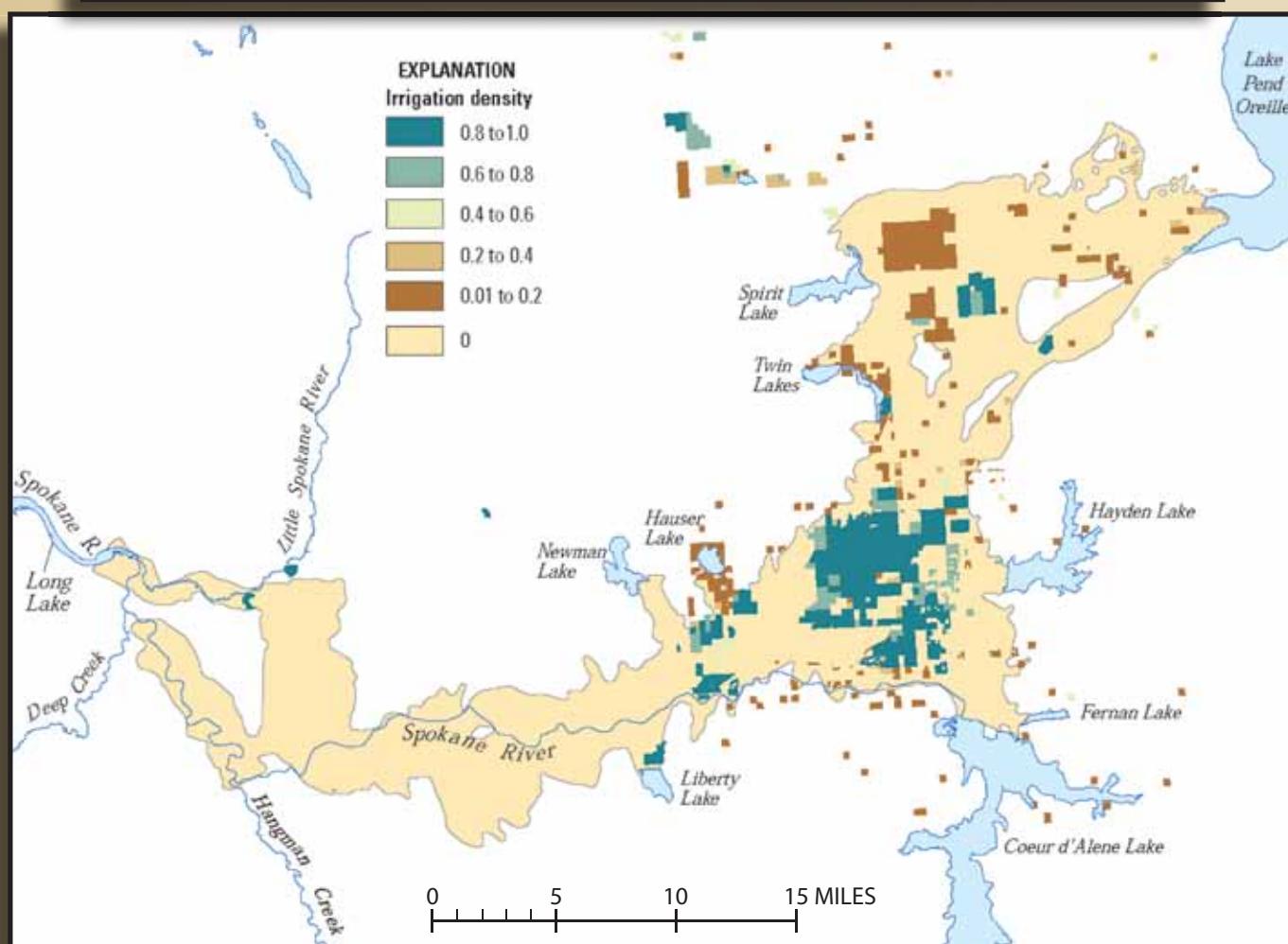


## Water Purveyors (above)

Shown are water service areas and major wells that withdraw water from the Aquifer.

## Irrigation Areas (below)

Shown are irrigation areas outside self-supplied golf courses and water purveyor service areas.



## Developing a Flow Model

Developing a computer model to simulate groundwater flow in the Aquifer is a four step process.

### Step 1

Define the extent of the model (upper left map, page 17) and the depth of the model (lower right map, page 17) based on the Aquifer boundary.

### Step 2

Define the direction and flow rate of the groundwater in the Aquifer (upper right map, page 17).

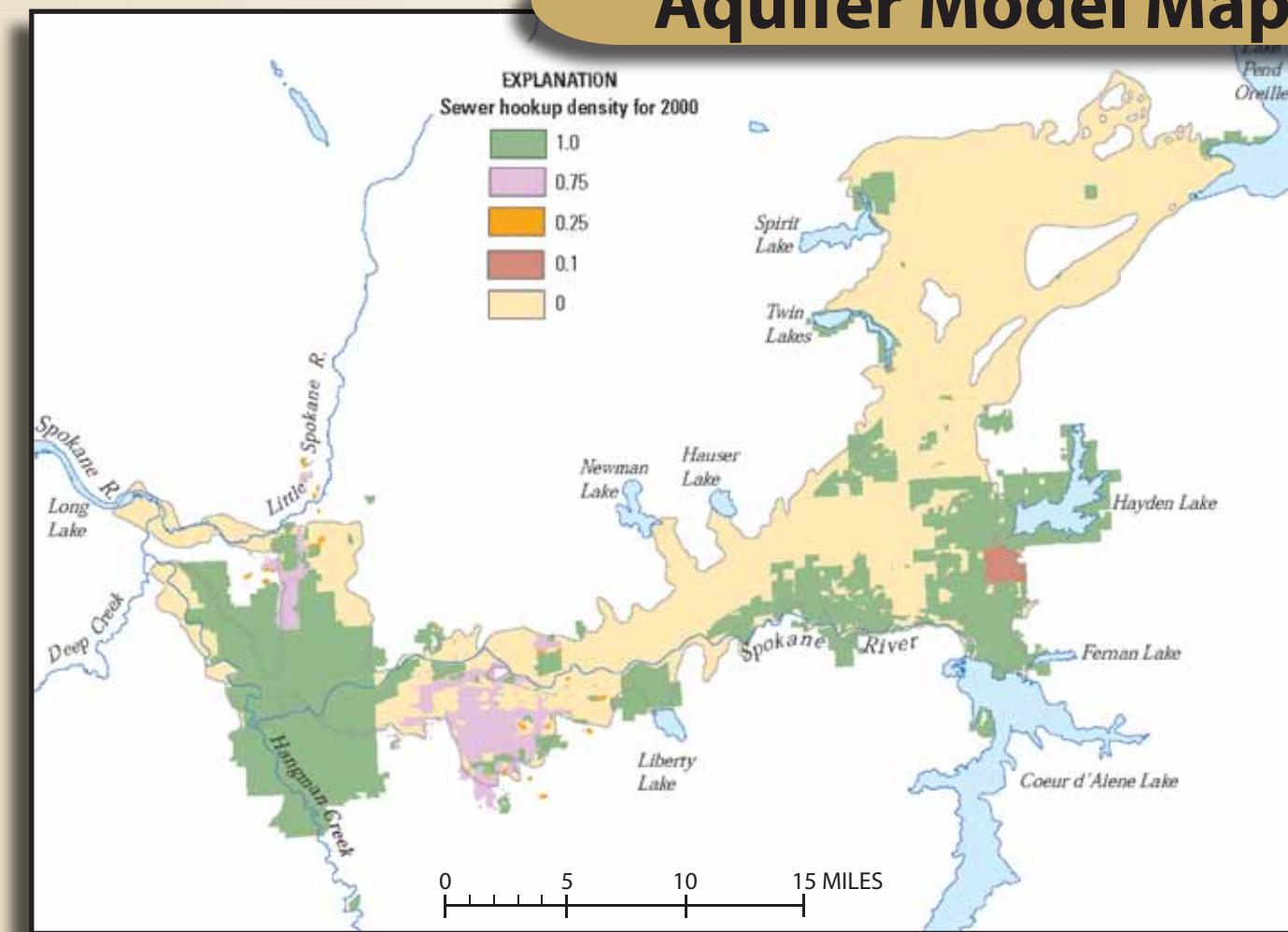
### Step 3

Estimate the water entering and leaving the Aquifer (some of that information shown on the maps on this page).

### Step 4

Calibrate the model by comparing model results with real-world data, then revising the model many times until the model results closely match the real world.

An aquifer groundwater flow model (when calibrated) can be used to predict the affect on water levels and flow rates from different uses and withdrawal rates. Some of the predicted affects on the Aquifer and the Spokane River from future pumping of the Aquifer are discussed on page 15.



## Pipe Sewer Areas (above)

These areas provide pipe sewer service that do not contribute septic drain field flow to the Aquifer.

## Aquifer Tributary Areas (below)

These areas either drain to the Aquifer (pink) or drain to lakes near the Aquifer (green).

