

cm April 6/98

RM of Springfield

Well Survey Results

October 1998

Prepared by:



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RM of Springfield Well Survey Results

This survey identified groundwater wells in the RM of Springfield with an indication of whether they were active or abandoned and visible or not. As a secondary activity, survey personnel made a note of the buildings on the property indicating the presence of residences, barns and other outbuildings. The villages of Oakbank, Dugald, Anola, Hazelridge and Vivian were not included in this survey. The following maps were prepared to demonstrate the data results. The data represents an estimated 95% of all active wells in the RM of Springfield and 70% of all abandoned wells. Missing active well data is due to denied access to the site. Missing abandoned well data is due to lack of local knowledge.

Map 1 – Overview

The well survey was undertaken over a three year period. This map indicates the areas covered in each of the three phases. The ownership parcels are shown along with the major transportation and transmission line infrastructure.

Map 2 – Aquifers

This map delineates the major aquifers as defined by the Provincial Water Resources and shows the surveyed well locations. The number of survey wells encompassed within each aquifer type are indicated.

Map 3 – Abandoned Wells

The Province has identified aquifer pollution hazard areas within the municipality. These areas are identified as hazards due to exposed surface water in sand and gravel aquifers or due to the proximity of bedrock to the surface. This map shows the active and abandoned wells from the survey in relation to these hazard areas. Within each hazard area, the percent of abandoned wells to the total wells is indicated.

Map 4 – Well Density

Well counts were aggregated on a quarter section basis. The well density is presented as a colour shading of the quarter section; the colour representing a given range of well counts.

Map 5 – Well Density

In an alternate format, the density of wells is presented as a continuous colour shading. The “colour thermometer” indicates that 75% of the quarter sections have less than 2.8 wells or less and that 50% of the quarters have 1.3 wells or less.

Map 6 – Building Locations

Buildings identified in the survey are shown with respect to the pollution hazard areas

Map 7 – Population Density

Population was aggregated to a quarter section and is displayed in this map. The population was derived by multiplying the number of dwellings on a quarter section (taken from the current assessment rolls) by the population per household (taken from Statistics Canada data) for the enumeration area encompassing that quarter section. There are 20 enumeration areas that cover the RM of Springfield. Note that the populations for the village areas are included in this data.




Map 8 – Livestock Buildings

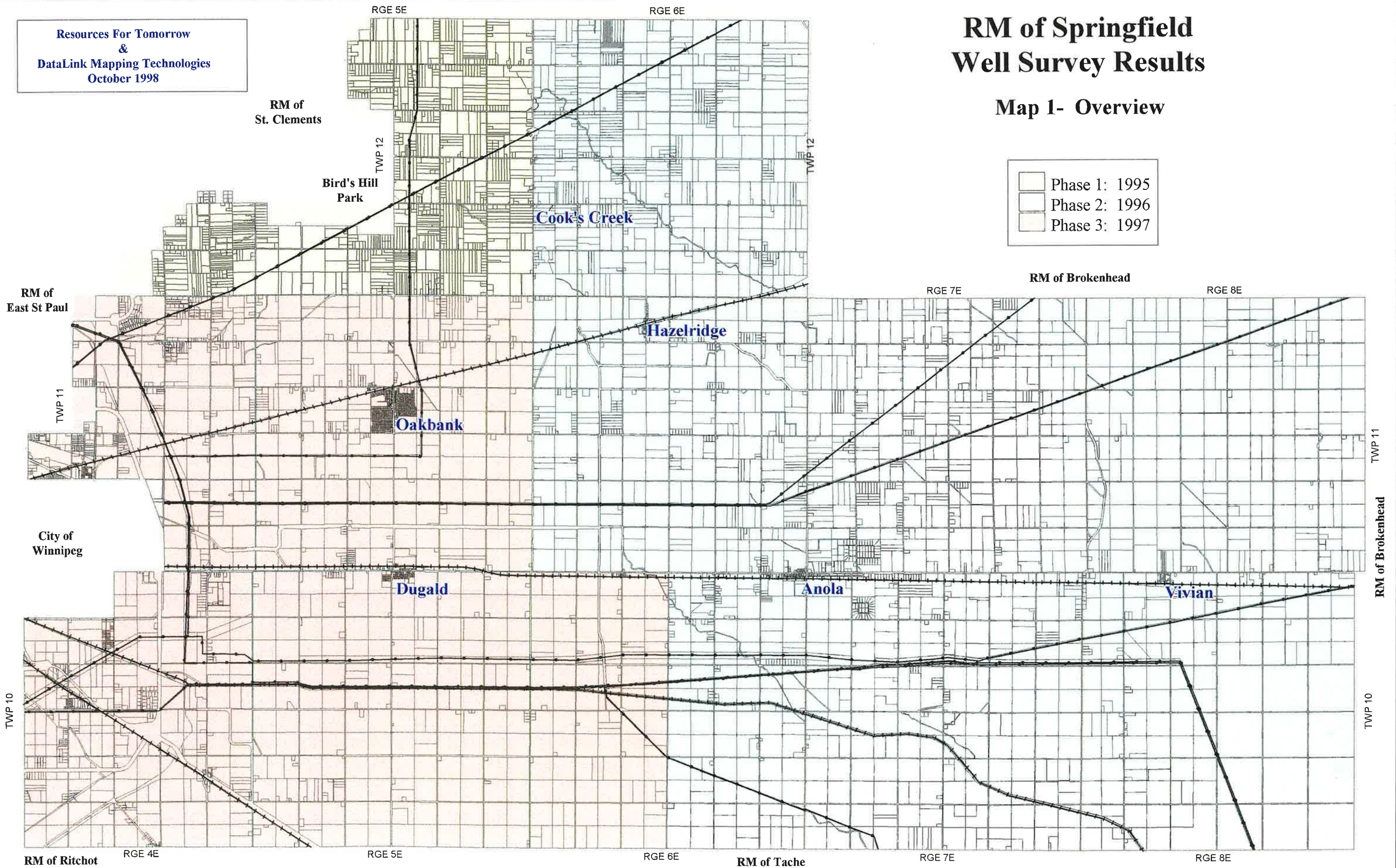
Those buildings that were associated with livestock are indicated with a symbol representing the livestock type. The pollution hazard areas are also shown in this map.

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Map 1- Overview




	Phase 1: 1995
	Phase 2: 1996
	Phase 3: 1997



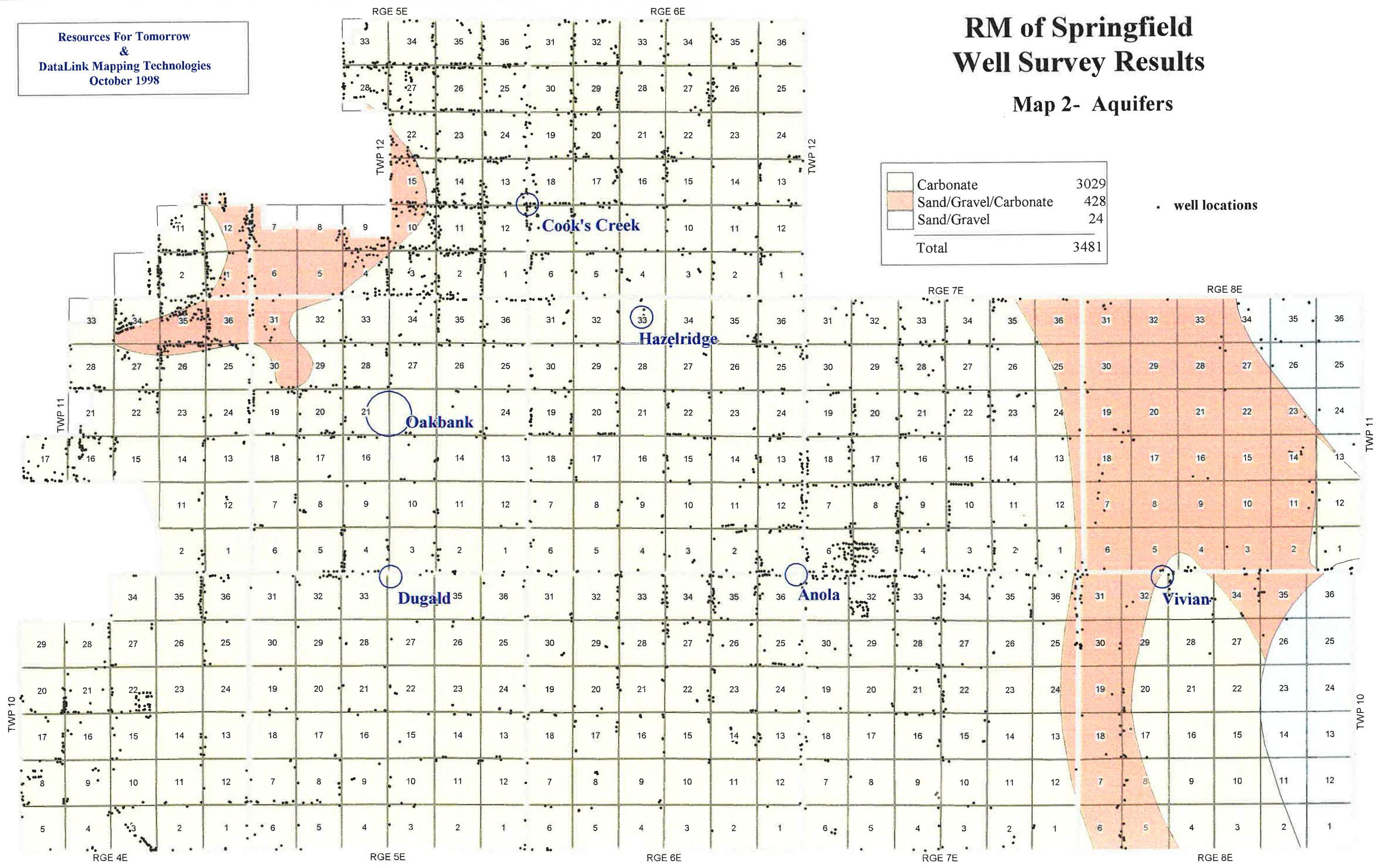
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Map 2- Aquifers

	Carbonate	3029
	Sand/Gravel/Carbonate	428
	Sand/Gravel	24
Total		3481

• well locations



TWP 10

TWP 10

TWP 11

TWP 11

TWP 12

TWP 12

RGE 4E

RGE 5E

RGE 6E

RGE 7E

RGE 8E

RGE 5E

RGE 6E

RGE 7E

RGE 8E

Cook's Creek

Hazelridge

Oakbank

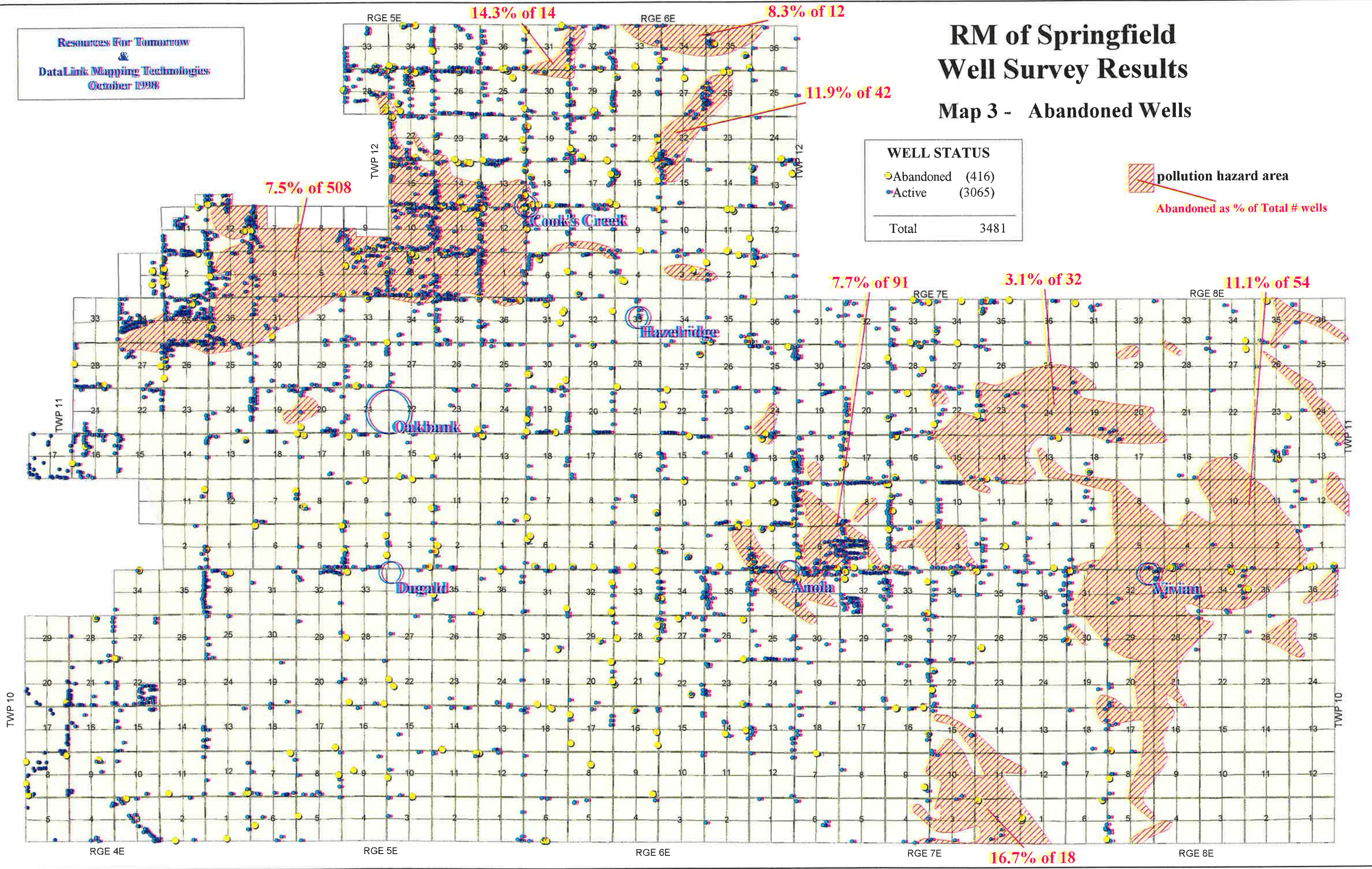
Dugald

Anola

Vivian

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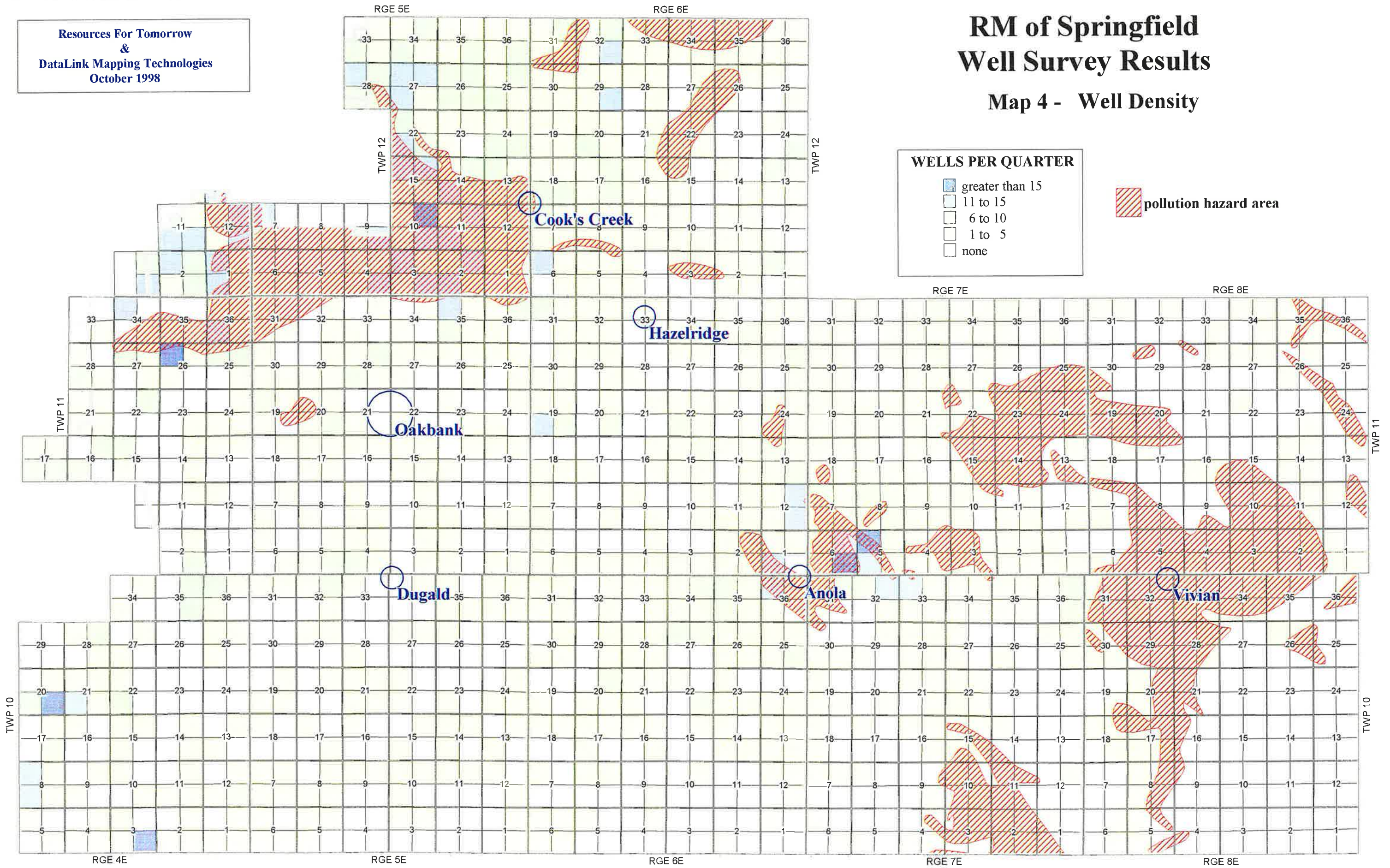
Map 3 - Abandoned Wells



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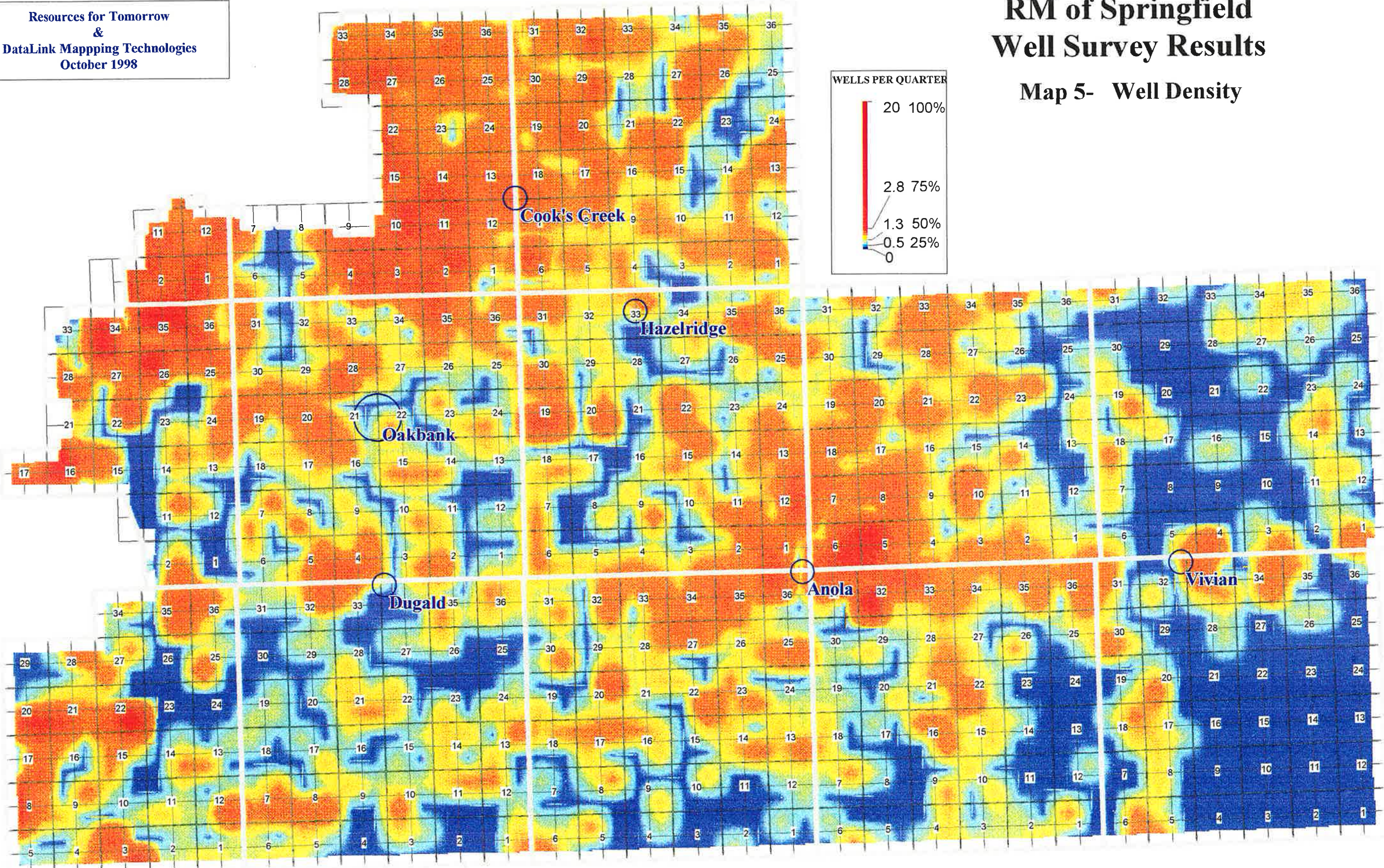
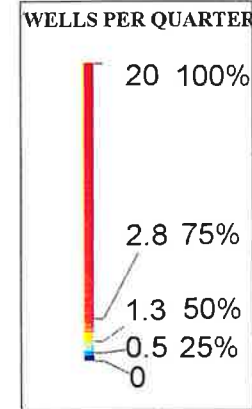
Map 4 - Well Density



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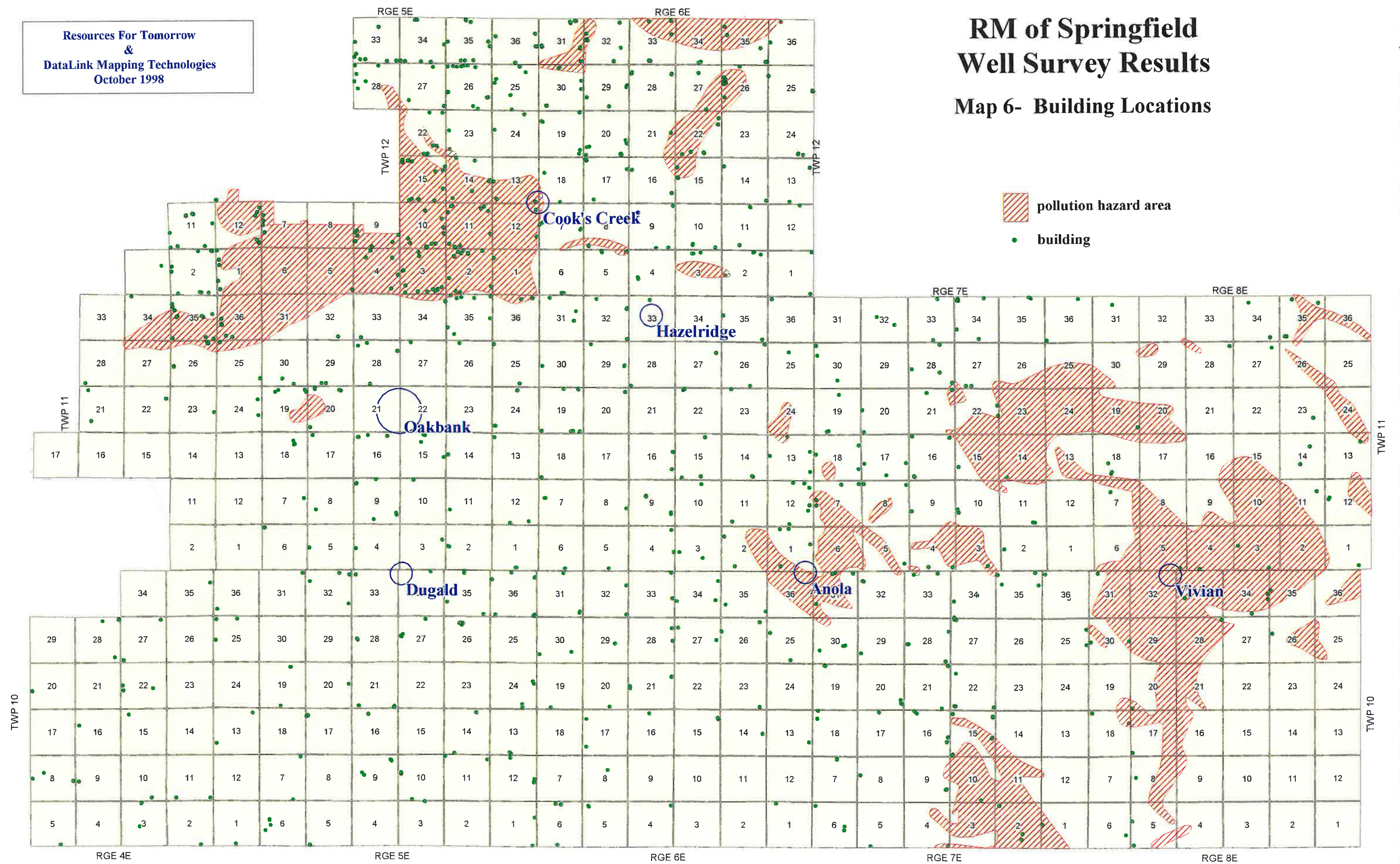
Map 5- Well Density



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Map 6- Building Locations



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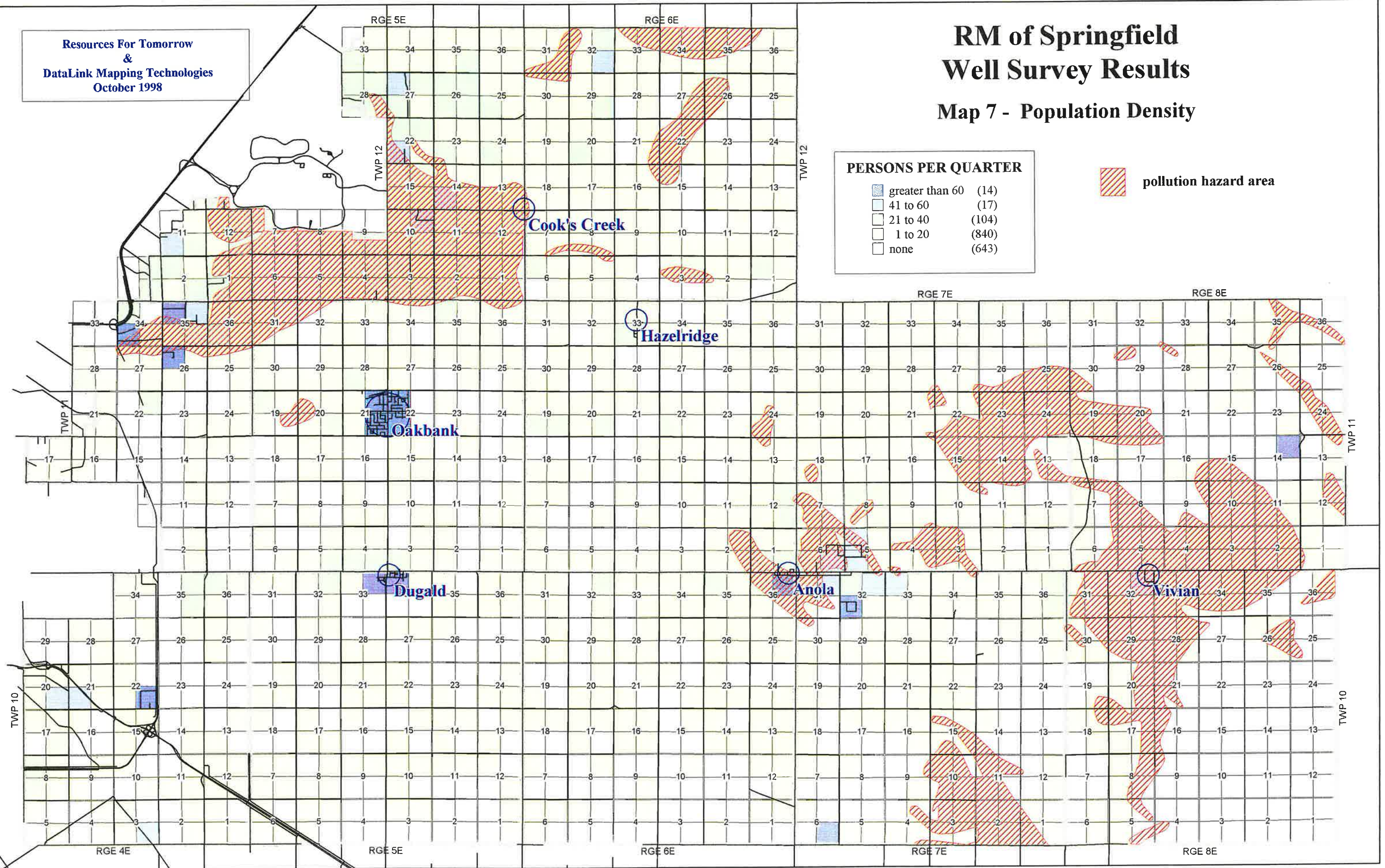
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Map 7 - Population Density

PERSONS PER QUARTER

	greater than 60	(14)
	41 to 60	(17)
	21 to 40	(104)
	1 to 20	(840)
	none	(643)

pollution hazard area



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Map 8 - Livestock Buildings

BARN TYPE	
▲ cattle	(122)
▼ hogs	(21)
◆ horses	(182)
● unknown	(519)
■ poultry	(33)

 pollution hazard area

