Dresden Maine (Lincoln County) Case Study

Frankfort Plantation and Pownalborough (West Precinct) were both early names for the present town of Dresden. Dresden was first settled as Frankfort in 1752. The 1761 Pownalborough Courthouse was the first built in Maine and the only one built prior to the Revolution. President John Adams once tried a case at the courthouse. Incorporated in June 1794, Dresden is believed to have been named for Dresden, Germany. It is nine miles long, three to four miles wide, contains some 25,000 acres and its highest elevation is 442 feet. The town is less than 20 miles from the Ocean and its' rivers are influenced by ocean tides. The land varies between rolling hills along the Kennebec River and its' East Branch in the center and north to low rolling farming lands in the south. Bald Eagles flying along the river and in updrafts are very common in this town.

Today, Dresden is mostly a bedroom community. The consensus among the residents is that they like the quiet, rural atmosphere and want to work towards keeping it so at this the end of 211 years of incorporation and 250-plus years of permanent settlement.

Until 1996, the residents of Dresden obtained their drinking water from private groundwater wells. In 1996, a leaking underground gasoline storage tanks was discovered in the village center. The State primacy built a very small public groundwater system servicing about 30 people. Two wells service this public system and 4 others independently service other public systems such as the school and mobile home parks. At that time, elected officials assigned the town's Conservation Commission to gather information on groundwater quality through the township.

From 1996 through 2004, the town funded the Commission to solicit well owners to allow water sampling and tabulation of lab results. About 40 private wells were in the program when RCAP Solutions, Inc. was contacted in May 2004. The Commission requested RCAP to organize the data and conduct an analysis to present to town leaders. This presentation would give an overview of the results, determine future course and funding.

Spreadsheets, database and GIS software was utilized for the analysis and presentation. RCAP gathered the Commission data but also collected additional data from the State Geological Survey (93 wells) and a State fracture study completed in 1986 (30 wells). Therefore, a total of 172 wells are currently in the study. The census indicates there are 739 housing units in Dresden. Therefore it's possible only 23% of all the private wells are in the study. Although the geographically distribution of tests are very good, RCAP is encouraging the Commission to solicit more well owners to participate.

RCAP informed the town of well depth ranges, typical yields, and casing depths. Well yields seem to be related either to stratified glacial drift aquifers or bedrock fracture trends. An examined various watersheds showed the group of the importance of wellhead protection. This included good homeowner practices including water conservation and wastewater disposal. The Commission continues its' solid waste handling education outreach.

RCAP reported that, for what was tested, the overall quality of Dresden's groundwater is okay. Aesthetic quality is impacted from iron, manganese, sulfur and some brackish intrusion. RCAP showed how the many test results established certain baselines of various aesthetic parameters. RCAP therefore recommended that this program's future testing to focus upon bacteria, nitrate, nitrite, arsenic, uranium, fluoride and radon. Also, the Commission is creating a land-use map that shows current and historical land history. This will be helpful to pinpoint expensive, organic testing if necessary.

The presentation convinced the town leaders to continue funding the program. RCAP concluded the presentation with information about various point-of-entry and point-of-use filtration and treatment equipment. Two local water treatment companies were present displaying their equipment and answered further questions.