

PROBLEM

The Aggregate Resources Inventory Program of the Ontario Geological Survey is progressively assessing the aggregate resource base in Ontario to assist in managing the resources. The Survey required an office, field and laboratory study and fully documented report for the Prince Edward County which is designed to 1) provide the geological information required to document potential mineral aggregate resource areas, 2) form the basis for discussion on those areas best suited for possible extraction, and 3) assist decision makers in protecting the public wellbeing by ensuring that adequate resources are available for future use.



APPROACH

Available information on the known sand and gravel and bedrock sources was gathered from the Ministries of Natural Resources and Transportation. Licensed and abandoned pits and quarries (96 sites) were inspected in the field to confirm licence data and to describe the geological characteristics of exposed faces with notes, sketches, and photographs. Selected samples were taken for physical quality testing. Field and laboratory data were analysed to determine the quality and quantity of the sand and gravel and bedrock resource units. Each deposit was assigned a primary, secondary or tertiary level of significance and primary deposits were assigned a priority based on physical characteristics.

RESULTS

Prince Edward County contains limited resources of sand and gravel. Three small Selected Sand and Gravel Resources Areas were identified at the primary level of significance, with a resource potential of approximately 10 million tonnes. The aggregate contained in these areas is suitable for a range of road building and construction products. Sand and Gravel Resource Areas of secondary and tertiary significance have also been identified.

Prince Edward County is underlain by bedrock of the Verulam Formation and the upper and lower members of the Lindsay Formation. These units have been quarried mainly to produce lime for cement manufacture and other chemical uses. The formations do not meet Ministry of Transportation specifications for many road building and construction aggregates. These formations can produce nonspecification aggregate for local use. No areas have been selected for possible resource protection.