INTRODUCTION

In the San Juan County area and island group study area, water-quality information was collected as part of the information gathered for the study. This study area, which includes the islands of Orcas, San Juan, Lopez, and Shaw, is located in the northwestern part of Washington state. The study area is characterized by a temperate climate with mild winters and cool summers. The principal water resources in the area are groundwater and surface water, including rivers, streams, and lakes.

The objectives of this study were to determine the distribution and quality of groundwater and surface water resources in the study area. The study also aimed to assess the potential for groundwater contamination and the impact of surface water on groundwater quality.

DATA COLLECTION AND ANALYSIS

The data collected during the study included groundwater quality information, surface water quality data, and land use information. The groundwater quality data were collected from wells and springs, and the surface water quality data were collected from streams and lakes. The land use data were collected from aerial photographs and land use maps.

The quality of the groundwater was assessed using a variety of analytical techniques, including chemical analyses, isotopic analyses, and microbiological analyses. The quality of the surface water was assessed using chemical analyses and bacteriological analyses.

The data were analyzed using statistical and geographic information system (GIS) techniques. The results of the analysis were used to develop a comprehensive understanding of the water resources in the study area.

CONCLUSIONS

The study results indicated that the groundwater and surface water resources in the study area are generally of high quality. However, there are areas where the quality of the groundwater and surface water is impacted by human activities, such as agriculture and urban development.

The study also highlighted the importance of protecting the water resources in the study area. This can be achieved by implementing effective land use practices, such as reduced chemical use in agriculture and improved waste management practices.

The study results were used to develop a strategic plan for the management of the water resources in the study area. The plan includes recommendations for improving the quality of the water resources and protecting them from further degradation.

OCCURRENCE, QUALITY, AND USE OF GROUND WATER IN ORCAS, SAN JUAN, LOPEZ, AND SHAW ISLANDS, SAN JUAN COUNTY, WASHINGTON

Location of Major Ground-Water Withdrawals by Water-Use Category for 1980

By E. A. Whittemore, D. A. Mcdonald, G. C. Bartleson, and J. L. Jacoby

1982