ACKNOWLEDGEMENT

It is with immense pleasure that I express my deep sense of gratitude and humble appreciation towards Dr. G P Nagori who not only readily accepted me as student but also suggested the area of research. I am deeply indebted to him for his excellent guidance, wholehearted co-operation, constructive criticism and continuous encouragement, which were important for the satisfactory completion of this research work. I am also thankful to Dr. B. S. Pathak, Director, SPRERI, not only for providing facilities at the Institute but specially, for his keen interest and fruitful discussions, valuable suggestions and advice whenever & wherever (needed most) it mattered.

I am thankful to Dr. P Nema, Dy. Director, NEERI, Nagpur for technical guidance, discussions, materialistic support and continuous inspiration extended during the course of work. I would also like to express my sincere thanks to Prof. J N Joshi, Shri M M Shah, Shri Vimalbhai Chokhavatia and Samirbhai Choksi for extending their wholehearted support during the studies. I would acknowledge the invisible blessings of my guru, Dr. P P Oza.

I would also like to appreciate the support extended by the faculty members of Environmental Engineering Department, L D College of Engineering, particularly Prof. Y H Oza, Ms. Huma Syed, Shri G H Bun and Ms M J Pandya during the research work.

I take this opportunity to express my gratitude and thanks to the staff of SPRERI, particularly Er. Himali S Desai and Shri H R Patel for their constant support and technical discussions during the research work.

I would also like to express my sincere thanks and sense of deep appreciation towards different groups of final year students who helped me in operating the lab.
scale models to generate the required data. Some of them need special mention here. I would like to mention the names of Shri Hardik Shah, Ms. Depali Shah, Ms. Sonika Patel, Ms. Shradha Athavle, Ms. Nikita Mahetaliya, Mr. Amar Wadhawan and Ms. Vrunda Paranjape for their enthusiastic and untiring work. The hard work put in by Ms. Prakruti Shah, specially in the development of nomographs, is acknowledged.

I would like to specially appreciate the kind of support, help, continuous push, logistic, technical & emotional support extended by Ms. Nairuti R Shah. I would never forget her association and complete involvement in the completion of the thesis. It will not be out of the place if I accept the fact that without her support, things would have been more difficult for me.

I feel indebted to all my family members, particularly my wife Mohini and son Ashish, who have been a continuous source of encouragement, contentment and means of releasing the tension particularly during the trying times.

I am also highly indebted to my mother Mrs. Shantaben for blessings and to my brothers Pratapbhai, Rameshbhai & Deepakbhai for their love & moral support.

N S Varandani