ACKNOWLEDGEMENT

Graduate research assistantship was provided by a grant from the National Corporation Service through the Service-Learning Center and the Virginia Water Resources Research Center at Virginia Tech.

I would like to thank:

- My co-chairs, Dr. John Randolph and Dr. Tamim Younos and my committee members, Dr. Michael Rosenzweig and Dr. JoAnn Carmin, for their wisdom and support
- Michele James-Deramo and Ken Yetman for their technical support
- My Family (de Leon, Vautier, Taylor, Parent, and the Golden) for their love, encouragement, and prayers
- My fiancé, Amy Regrut, for her continuing love, patience, and support

I would like to recognize the following for their support and time:

Sponsors:

  Virginia Tech
  Virginia Water Resources Research Center
  Service-Learning Center
  Cabell Brand Center
  Seek Education, Explore, DiScover

Service-Learners from Virginia Tech:

  Kimberly Porter       Mandy Stoughton       Stephanie Garman
  Jennifer Young       Mary Crawford         Megan Roberts
  Joao Mil-Homens      Clay Rogers            Angela Benson
  Bernardo Buchsbaum   John Strandberg       Jason Hamel

Landon Canida
Ed Brooks
Community volunteers
Landowners along Stroubles Creek
Town of Blacksburg, VA
Montgomery County, VA
# TABLE OF CONTENTS

## CHAPTER I
INTRODUCTION .........................................................................................................1  
OBJECTIVE .............................................................................................................2  
THE WATERSHED PROTECTION APPROACH ....................................................3  
CHALLENGES IN WATERSHED MANAGEMENT ..............................................4  

## CHAPTER II
THE MEANING OF SERVICE-LEARNING .............................................................7  
SERVICE-LEARNING IN HIGHER EDUCATION ...............................................10  
BENEFITS OF INTEGRATING SERVICE-LEARNING .......................................11  
SERVICE-LEARNING IN WATERSHED MANAGEMENT ................................13  

## CHAPTER III
THE STROUBLES CREEK WATERSHED INITIATIVE .....................................16  
THE STROUBLES CREEK WATERSHED .............................................................18  
SERVICE-LEARNING PROJECTS .......................................................................21  
Stroubles Creek Corridor Assessment ............................................................22  
Database Management System ......................................................................30  
Stroubles Creek Watershed Stakeholder Summit .........................................34  
Website Development ......................................................................................36  
Citizen Bulletin Board .......................................................................................42  
SEEDS Summer Camp .......................................................................................43  
ACCOMPLISHMENTS .........................................................................................46  

## CHAPTER IV
LESSONS LEARNED .............................................................................................49  
Challenges Faced .................................................................................................50  
*Sustainability of Service-Learning in Watershed Management* .................50  
Low Faculty and Student Participation ............................................................50  
Time Management .............................................................................................51  
*Coordinating Project Activities* .......................................................................52  
Lessons from the Stroubles Creek Watershed Initiative .................................53  
*Making a Purposeful Service-Learning Program* .........................................54  
Diversify Service-Learning Programs .............................................................55  
*Provide Opportunities for Reflections on Service Experiences* ..................56  
Provide Community Input .................................................................................57  
*Evaluate the Service-Learning Program* .......................................................57  
Provide Opportunities for Students to Receive Wage or Credit .....................58  
Increase Faculty and Student Participation to Sustain Service-Learning in Watershed Management Activities .........................................................58  
NEXT STEPS .......................................................................................................60  

## CHAPTER V
SUMMARY .............................................................................................................63  

## BIOBIBLIOGRAPHY

## APPENDIX I

## APPENDIX II

## APPENDIX III