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These papers were presented at the Annual Meetings of the Soil Science Society of America and the American Society of Agronomy at Columbus, Ohio, November 1-5, 1965.
"Land-use planning" is an expression that we shall be hearing more often in the future. As the population expands, all uses of land and soil become more competitive. Good agricultural land will be under increasing pressure from urban growth and expanding public facilities such as highways and airports. These demands are unique to our time, reflecting the increasing importance of land as living space. It has been estimated that by 1980, over 38 million acres of farm land will be taken over for nonagricultural use. Much of this will be taken from our supply of irreplaceable, highly productive soils because the steep, rough areas are much less desirable for urban and public facility development. Most of the decisions will be irreversible, so the importance of sound land-use planning is evident.

Furthermore, with the ever larger areas of soil being devoted to housing, factories, highways, and the like, there is an increasing danger of costly mistakes in locating structures on soils ill-suited to the particular purpose. In many communities over the country such experience has focused attention on the importance of matching soil characteristics to the requirements for specific uses. Regional and community planners as well as soil scientists are aware of this need. They are joining forces with increasing frequency to deal with problems ranging in scope from broad, regional, land-use planning to specifications for individual structure sites.

The papers published in this book are the result of one of these efforts. They were presented on a special program at the 1965 annual meetings of the Soil Science Society of America and the American Society of Agronomy and were co-sponsored by the American Society of Planning Officials. It is our hope that the experience brought together here will be helpful to those engaged in regional and community planning for the best possible use and conservation of our land resources.

R. W. Pearson, President
Soil Science Society of America

L. A. Richards, President
American Society of Agronomy
PREFACE

Since the end of World War II, the art of planning for urban development has evolved so rapidly that it might be termed a "revolution." The change has come through the introduction of scientific method and knowledge into planning. Now we like to speak of "the art and science of planning," instead of simply "the art of planning." It is doubtful that city planning can ever become completely scientific, but it is already a much better art because of the leavening of science.

In the United States we have had an embarrassment of riches. As we thought of our country before the war, it was an unlimited reservoir of the three basic environmental resources: air, water, and land. We could use these resources in whatever manner desired; there was no end to them in sight.

Not until after World War II did we realize that maybe these resources were not as inexhaustible as previously thought. In fact, the end of the "unlimited" water supply, in the proper place, seemed alarmingly close. We found that there was a limit to the supply of air that could be used both as a sewer and for breathing. There was a limit to the supply in the proper place, such as in the metropolitan center.

Finally, we have discovered that there is even a limit to our supply of land, suitable land of the right kind for urban development, in the proper places. It has been difficult, more so than with water and air, to convince people that all land is not the same, that land has physical characteristics which often are more important than geographic location in planning urban development. Since land is a market commodity, the introduction of the principle that land is a public resource requiring public management based on scientific knowledge has been particularly difficult. And this battle is far from won.

I do believe, however, that the rapidly growing use of soil science—the most recent of the physical sciences to lend a hand to city planning—marks a major step in our progress toward producing better urban environment in our nation. If there were no soil science, I shudder to think of the hodgepodge which would result in trying to care for the 100 million new residents to be added to our urban areas by the end of this century.
The American Society of Planning Officials has been pleased to co-sponsor this meeting with the American Society of Agronomy and the Soil Science Society of America and other conferences on the use of soil science in planning urban development. Soil science is still a new tool for most planners, but I believe that the soil capability analysis soon will be as basic to our art, and science, as the land use inventory, the traffic count, and the population projection.

Dennis O'Harrow, Executive Director
American Society of Planning Officials
CONTENTS

Foreword vii
Preface ix

Chapter 1. Soil Surveys for Community Planning Charles E. Kellogg 1

Chapter 2. Soil Surveys and the Regional Land Use Plan Robert H. Doyle 8

Chapter 3. Soils and Their Role in Planning a Suburban County David B. Witwer 15

Chapter 4. Use of Soil Maps by City Officials for Operational Planning W. R. Hunter, C. W. Tipps, and J. R. Coover 31

Chapter 5. The Use of Soils Information in Urban Planning and Implementation John G. Morris 37

Chapter 6. Application of Soils Studies in Comprehensive Regional Planning Kurt W. Bauer 42

Chapter 7. Use of Soil Surveys by a Planning Consultant Carol J. Thomas 60

Chapter 8. Use of Soil Surveys in Subdivision Design John R. Quay 76

Chapter 9. The Use of Agricultural Soil Surveys in the Planning and Construction of Highways Thomas H. Thornburn 87

Chapter 10. Use of Soil Surveys in Planning for Recreation P. H. Montgomery and F. C. Edminster 104

Chapter 11. Improving Soil Surveys Interpretations Through Research Gerald W. Olson 113
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>The Urban Soils Program in Prince William County, Virginia</td>
<td>Dwight L. Kaster and Oscar W. Yates, Jr.</td>
<td>126</td>
</tr>
<tr>
<td>14</td>
<td>Use of Soil Surveys in the Equalization of Tax Assessments</td>
<td>Robert R. Kinney</td>
<td>132</td>
</tr>
<tr>
<td>15</td>
<td>Soil Surveys and Urban Development—An Educational Approach</td>
<td>Harry M. Galloway</td>
<td>137</td>
</tr>
<tr>
<td>16</td>
<td>Educational Programs to Aid Agricultural Users of Soil Survey Reports</td>
<td>O. W. Bidwell</td>
<td>147</td>
</tr>
<tr>
<td>17</td>
<td>Quantitative Aspects of Soil Survey Interpretation in Appraisal of Soil Productivity</td>
<td>William R. Oschwald</td>
<td>152</td>
</tr>
<tr>
<td>18</td>
<td>Role of Detailed Soil Surveys in Preparation and Explanation of Zoning Ordinances</td>
<td>M. T. Beatty and D. A. Yanggen</td>
<td>160</td>
</tr>
<tr>
<td>19</td>
<td>Changes in the Need and Use of Soils Information</td>
<td>S. S. Obenshain</td>
<td>175</td>
</tr>
</tbody>
</table>