A REGIONAL PLANNING ANALYSIS OF
A SINGLE ENTERPRISE COMMUNITY OF SETTLEMENTS

by

EDWARD TERRENCE CLEGG

REPORT ON A PROJECT SUBMITTED IN LIEU OF A THESIS IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE

in the Department of

COMMUNITY AND REGIONAL PLANNING

We accept this report as conforming to the standard required
from candidates for the degree of MASTER OF SCIENCE

__________________________________

__________________________________

Members of the Department of
Community and Regional Planning

THE UNIVERSITY OF BRITISH COLUMBIA

September, 1958
ABSTRACT

It is the purpose of this Thesis to demonstrate: that a single enterprise community of settlements should plan its activities to prevent ghost towns from developing and to lessen the ill-effects of economic fluctuations; that a regional planning approach to this problem is the best since it produces balanced solutions from consideration of physical, social, and economic aspects; that the problems of single enterprise communities can be solved if a group or an individual who has recognized the problem can give the leadership needed to stir governments, companies, and the people sufficiently so that a regional planning administration will be established as the first step to solving the problem; and, finally, that the survey, analysis, and solutions, will be a contribution to knowledge. A survey of various communities was undertaken to demonstrate the problem. These were settlements as they existed in the past and as they exist today. The single enterprise community of settlements of the Rossland-Trail Region is used as a case study in order to show that such a community is vulnerable to the general problem but can be aided. A survey of its particular problems is undertaken and various solutions to them are offered. From the problems and solutions certain general principles are derived: The Principle of a Regional Planning Approach;
The Principle of the Physical Habitat; A Principle for Regional Delimitation; The Principle of Economic Dominance; The Principle of a Regional Land-Use Balance; The Principle of Economic Expansion and Diversification; The Principle of Resource Development; The Principle of Citizen Participation; The Principle of Limited Jurisdiction; and The Principle of a Regional Planning Administration.
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the Head of my Department or by his representative. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Community and Regional Planning

The University of British Columbia, Vancouver 8, Canada.

Date September 27, 1958.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. THE PROBLEM OF THE SINGLE ENTERPRISE</td>
<td></td>
</tr>
<tr>
<td>COMMUNITY OF SETTLEMENTS</td>
<td>1</td>
</tr>
<tr>
<td>Planning Hypothesis</td>
<td>1</td>
</tr>
<tr>
<td>Methods of Study</td>
<td>2</td>
</tr>
<tr>
<td>The Single Enterprise Based Community</td>
<td>4</td>
</tr>
<tr>
<td>The Causes of Failure and Depressions</td>
<td>36</td>
</tr>
<tr>
<td>The Problems of Community Depressions and Failures</td>
<td>38</td>
</tr>
<tr>
<td>The Role of the Regional Planner</td>
<td>40</td>
</tr>
<tr>
<td>II. A SURVEY OF THE PROBLEMS OF THE ROSSLAND-TRAIL REGION</td>
<td>41</td>
</tr>
<tr>
<td>Rossland-Trail Area</td>
<td>41</td>
</tr>
<tr>
<td>The Rossland-Trail Regional Delimitation and Settlement Pattern</td>
<td>50</td>
</tr>
<tr>
<td>Municipal Revenues</td>
<td>63</td>
</tr>
<tr>
<td>Municipal Finances in Rossland and Trail</td>
<td>82</td>
</tr>
<tr>
<td>Utilities and Services</td>
<td>87</td>
</tr>
<tr>
<td>Economic Base Analysis</td>
<td>93</td>
</tr>
<tr>
<td>Regional Economy</td>
<td>101</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Potential Resources in the Region</td>
<td>110</td>
</tr>
<tr>
<td>Social Characteristics</td>
<td>116</td>
</tr>
<tr>
<td>Municipal Government in Rossland and Trail</td>
<td>126</td>
</tr>
<tr>
<td>Regional Power Structure</td>
<td>129</td>
</tr>
<tr>
<td>A Lack of Direction</td>
<td>132</td>
</tr>
<tr>
<td>III. SOLUTIONS TO THE PROBLEMS IN THE ROSSLAND-TRAIL REGION</td>
<td>137</td>
</tr>
<tr>
<td>Introduction</td>
<td>137</td>
</tr>
<tr>
<td>Regional Development</td>
<td>138</td>
</tr>
<tr>
<td>Economic Expansion and Diversification</td>
<td>164</td>
</tr>
<tr>
<td>A Planning Administration</td>
<td>176</td>
</tr>
<tr>
<td>Improving Municipal Finances</td>
<td>182</td>
</tr>
<tr>
<td>IV. A SUMMARY</td>
<td>194</td>
</tr>
<tr>
<td>The Problems of the Single Enterprise</td>
<td></td>
</tr>
<tr>
<td>Community of Settlements</td>
<td>194</td>
</tr>
<tr>
<td>A Survey of the Problems in the Rossland-Trail Region</td>
<td>199</td>
</tr>
<tr>
<td>Solutions to the Problems of the Rossland-Trail Region</td>
<td>208</td>
</tr>
<tr>
<td>V. SOME GENERAL CONCLUSIONS FOR APPLICATION</td>
<td>216</td>
</tr>
<tr>
<td>The Principle of a Regional Planning Approach</td>
<td>216</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>The Principle of the Physical Habitat</td>
<td>217</td>
</tr>
<tr>
<td>A Principle for Regional Delimitation</td>
<td>219</td>
</tr>
<tr>
<td>The Principle of Economic Dominance</td>
<td>222</td>
</tr>
<tr>
<td>The Principle of a Regional Land-Use Balance</td>
<td>223</td>
</tr>
<tr>
<td>The Principle of Economic Expansion and Diversification in a Region</td>
<td>224</td>
</tr>
<tr>
<td>The Principle of Resource Development</td>
<td>226</td>
</tr>
<tr>
<td>The Principle of Citizen Participation</td>
<td>228</td>
</tr>
<tr>
<td>The Principle of Limited Jurisdiction</td>
<td>230</td>
</tr>
<tr>
<td>The Principle of a Regional Planning Administration</td>
<td>231</td>
</tr>
<tr>
<td>Recapitulation</td>
<td>232</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>234</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>244</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>247</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Population Change and Distribution in Rossland-Trail Area From 1891 to 1956</td>
<td>49</td>
</tr>
<tr>
<td>II. A Comparison of Population Growth in Rossland, Trail and British Columbia</td>
<td>51</td>
</tr>
<tr>
<td>III. The Labor Force in Communities Surrounding Tadanac Employed at the Consolidated Mining and Smelting Company</td>
<td>53</td>
</tr>
<tr>
<td>IV. Where Cominco Employees Live</td>
<td>54</td>
</tr>
<tr>
<td>V. Some Birth, Death, and Marriage Statistics For Rossland, Trail, and British Columbia in 1955</td>
<td>55</td>
</tr>
<tr>
<td>VI. The Distribution of Retail Stores and Trade in Rossland, Trail, and British Columbia</td>
<td>56</td>
</tr>
<tr>
<td>VII. Average Per Capita Income and Income Taxation in the Rossland, Trail, and Kimberley Area and Canada from 1946 to 1955</td>
<td>67</td>
</tr>
<tr>
<td>VIII. A Classification of Wage Earners in Rossland, Trail, and British Columbia</td>
<td>68</td>
</tr>
<tr>
<td>IX. A Comparison of Per Capita Revenues, Expenditures, and Administrative Costs in 1956, for Rossland, Trail, and other municipalities</td>
<td>69</td>
</tr>
</tbody>
</table>
TABLE PAGE

X. Revenues of the Province and Rossland .......................... 77
XI. A Comparison of the Consumer's Index
From 1925 to 1955 .................................................. 80
XII. A Comparison of Mill Rates in Various
Municipalities in British Columbia .......... 84
XIII. A Comparison of the Distribution in
Occupation of Workers in Rossland,
Trail, and British Columbia ............. 88
XIV. The Number of Cominco Workers Employed
At Trail From 1931 to 1957 ..................... 105
XV. A Classification of Population in
Rossland, Trail, and British Columbia
by Five Year Age Classes ................. 117
XVI. Persons in the Labor Force by Households
for Rossland, Trail, and British
Columbia ............................................................ 118
XVII. A Comparison of the Number of Tenant
and Owner-Occupied Households in
Rossland, Trail and British Columbia . . . 120
XVIII. A Comparison of Population by Origin
in Rossland, Trail and British Columbia 121
XIX. A Comparison of the Distribution of Church
Membership in the Rossland-Trail Area 123
TABLE XX. A Cutting and Planting Schedule For A Sustained Yield Management Plan of the Sheep Lake Forest Area . . . . . . . 156
# LIST OF DRAWINGS

<table>
<thead>
<tr>
<th>DRAWING</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rossland-Trail Region in British Columbia</td>
<td>3</td>
</tr>
<tr>
<td>2. Depressed Communities in the Kootenay</td>
<td>6</td>
</tr>
<tr>
<td>3. The Boundary Region in 1906</td>
<td>8</td>
</tr>
<tr>
<td>4. Ghost Towns and Depressed Communities</td>
<td>34</td>
</tr>
<tr>
<td>5. Regions and Settlement Patterns</td>
<td>59</td>
</tr>
<tr>
<td>6. The Rossland-Trail Metropolitan Area</td>
<td>61</td>
</tr>
<tr>
<td>7. Revenues, Assessments, and Population in Tadanac, Rossland, and Trail</td>
<td>73</td>
</tr>
<tr>
<td>8. Municipal Revenues in Rossland and British Columbia</td>
<td>81</td>
</tr>
<tr>
<td>9. A Comparison of Taxation Rates</td>
<td>86</td>
</tr>
<tr>
<td>10. A Land-Use Plan of Rossland City</td>
<td>96</td>
</tr>
<tr>
<td>11. Employment at Cominco</td>
<td>106</td>
</tr>
<tr>
<td>12. Fluctuations of Cominco Stock Value</td>
<td>108</td>
</tr>
<tr>
<td>13. Forest Cover</td>
<td>112</td>
</tr>
<tr>
<td>14. Resources of the Rossland-Trail Region</td>
<td>139</td>
</tr>
<tr>
<td>15. Exploration for New Ore Bodies</td>
<td>148</td>
</tr>
<tr>
<td>16. A Sustained Yield Cutting Plan for the Sheep Lake Forest Area</td>
<td>153-154</td>
</tr>
<tr>
<td>PHOTOGRAPH</td>
<td>PAGE</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>L. The Young Growing City of Phoenix in 1900</td>
<td>7</td>
</tr>
<tr>
<td>2. The Granby Smelter at Grand Forks as it Appeared Fifty Years Ago</td>
<td>10</td>
</tr>
<tr>
<td>3. The Greenwood Smelter as it Appeared Fifty Years Ago</td>
<td>11</td>
</tr>
<tr>
<td>4. The Ruins of Phoenix City as it Appeared in June, 1958</td>
<td>13</td>
</tr>
<tr>
<td>5. The Last Building in Phoenix City</td>
<td>14</td>
</tr>
<tr>
<td>6. The Skeletal Remains of a Fine Masonry Building in Phoenix as it Appears Today</td>
<td>15</td>
</tr>
<tr>
<td>7. A Tombstone for Phoenix War Veterans and a Dead City</td>
<td>15</td>
</tr>
<tr>
<td>8. The Remains of the Granby Smelter</td>
<td>16</td>
</tr>
<tr>
<td>9. The Abandoned Smelter of Greenwood City</td>
<td>17</td>
</tr>
<tr>
<td>10. The City of Sandon as it Appeared in 1898</td>
<td>19</td>
</tr>
<tr>
<td>11. The Remains of the St. Eugene Mine and the Settlement of Moyie in the Background as it Appears Today</td>
<td>21</td>
</tr>
<tr>
<td>12. The Ruins of Lumberton's Spruce Mills as They Appeared Today</td>
<td>23</td>
</tr>
<tr>
<td>13. The Ruins of the Residential Section of Lumberton</td>
<td>23</td>
</tr>
</tbody>
</table>

15. An Original Log Cabin Home of 1860 Built at Fort Steele During the Gold Rush  

16. A Retail Store in Fort Steele Built in 1864  

17. The Last Tower of Fort Steele  

18. The Coal Town of Hosmer in 1913  

19. The Townsite of Hosmer as it Appeared in July, 1958  

20. The Ghost Town of Coal Creek as it Appeared in July, 1958  

21. The City of Corbin About 1920  

22. The City of Corbin as it Appeared in July, 1958  

23. A Residential Section of Corbin and the Old Railway Yards  

24. The Ghost Town of Copper Mountain in June, 1958  

25. The Toxic Effect of Sulphur Dioxide on the Foliage of Acer Saccharinum and Ulmus Americana  

PAGE

24  

26  

27  

27  

29  

29  

30  

31  

32  

32  

36  

43
<table>
<thead>
<tr>
<th>Photograph</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.</td>
<td>The City of Rossland</td>
<td>45</td>
</tr>
<tr>
<td>27.</td>
<td>The City of Trail</td>
<td>47</td>
</tr>
<tr>
<td>28.</td>
<td>Flood Waters and Silt on a Trail Street</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>After a Rain Storm, June, 1958</td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Gulley Erosion on a Sidehill in Trail</td>
<td>90</td>
</tr>
<tr>
<td>30.</td>
<td>The Flood Waters of the Columbia River</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>in Trail in 1948</td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>The Town of Frank</td>
<td>219</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

The comprehensive nature of this Thesis made it necessary to obtain the assistance of many municipalities, the Consolidated Mining and Smelting Company, the Fine Arts Library under Miss M. Dwyer, and numerous individuals. The technical advice of many Professors was used to good advantage throughout the Thesis and this help is gratefully acknowledged. The writer particularly wishes to express his thanks to Dr. H. Peter Oberlander for his encouragement and criticism, and to Harold Clegg for his valuable advice and information. The author is most directly indebted to his wife, Gunhild Evelyn Clegg, whose assistance made the completion of this Thesis possible.
CHAPTER I

THE PROBLEM OF
THE SINGLE ENTERPRISE COMMUNITY OF SETTLEMENTS

"God made the country, but man made the town." Cowper, The Task

1. PLANNING HYPOTHESIS

It is the purpose of this Thesis to demonstrate that:

A. A single enterprise community of settlements should plan their activities to prevent ghost towns from developing and to lessen the ill effects of economic fluctuations.

B. A planning analysis of a single enterprise community of settlements can produce reasonable solutions to this complex and important problem characteristic of the dependence upon a single enterprise.

C. A regional planning approach to this problem can produce balanced solutions since it considers the social, economic, and physical aspects at the regional level.

D. General planning principles can be derived from such a regional planning analysis that will contribute to the general knowledge of the single enterprise community of settlements.

E. The survey, analysis, and proposed solutions to the problem of the single enterprise community of settlements in this Thesis may provide a foundation for further investigation of that problem.
F. The problem of the single enterprise community of settlements\(^1\) can be solved if a group or an individual who has recognized the problem can give the leadership needed and can stir the actions of governments, companies, and people sufficiently to establish a regional planning authority.

2. METHODS OF STUDY

A. In order to illustrate the problem of the single enterprise community of settlements a brief analysis of the phenomena as it is found in British Columbia will be discussed. These communities will be examined as they have existed in the past and at the present. The Kootenay Area of British Columbia has been studied particularly since this area has been well-known for its many single enterprise communities. Some of the more common causes of depression and failure in these communities will be mentioned. Finally, some of the problems resulting from depressions and failures will be explained.

B. The single enterprise community of the Rossland-Trail Region (see Drawing:i on page 3) of the West Kootenay District will be examined as a case study for this Thesis.

\(^1\)The problems of a single enterprise community are considered to be the same in general terms as those of the single enterprise community of settlements who differ only in scale. The single enterprise community in this Thesis will refer to either one single community or a number of communities based upon a single enterprise.
Here the problem of the single enterprise economy has been well demonstrated in the past and at present. The City of Rossland was a single enterprise community based upon a mining industry. Its mineral resource was depleted and the community was on its way to becoming a ghost town. However, today Rossland and other communities depend upon the single enterprise of the Consolidated Mining and Smelting Company of Canada (Cominco) at Tadanac. The problems facing the single enterprise community of settlements around Tadanac today are much like those that faced the single enterprise community of Rossland. These are the same problems that have confronted such communities in Canada during past years and are the same as those that confront many such communities today.

C. A critical survey and analysis of the pertinent problems of the Rossland-Trail Area is then outlined. From this data a number of possible solutions are discussed. A summary of the survey and solutions is presented. Some general conclusions are then derived from the study to add to the general knowledge on the subject.

3. THE SINGLE ENTERPRISE BASED COMMUNITY

A. History of Single Enterprise Communities in British Columbia

British Columbia is in the process of settlement and development. This is also true of most of Canada which is
still a young nation. At such a stage of development many communities have been established in the exploitation of a single resource or in the operation of one large enterprise. Lumbering and mining communities are particularly well known. If these communities have their natural resource depleted or if the enterprise fails for some reason, then the communities suffer, the region suffers, and even the nation suffers to some extent. Although all recessions in such communities do not produce ghost towns, the mere fluctuation of employment following various economic changes can still produce hardships for many people. The Province of British Columbia has a history marked with the rise and fall of many single enterprise communities. Drawing 2 on page 6, indicates the location of some of these communities in the Kootenay area. This southeastern part of the Province has had a particularly large number of ghost towns during the past fifty years which have resulted from the failures of various enterprises upon which the communities economies were based. It is in this district of dead cities that the case study for this Thesis, the Rossland-Trail Region was studied.

Ghost Towns in the Grand Forks District. The Boundary Mining Region in 1906 was one of the largest and most active mining and industrial areas in the Province at that time. The
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

Title of Drg.  DEPRESSED COMMUNITIES IN THE KOOTENAY

Drawn by E.T. Clegg
appearance of this region is shown on Drawing 3 on page 8, as it was shown in an early mining journal of the period. ²

Phoenix City was the central city of the Boundary Mining Region. In 1905 "the population of the camp was between 1500 and 2000."³ The largest population in Phoenix was reported to be about 3000 persons.⁴ The community depended upon the rich copper mines nearby. It was a growing city in 1900 as shown in Photograph 1.

Photograph 1

THE YOUNG GROWING CITY OF PHOENIX IN 1900

NOTE: The business section of Phoenix is shown. The buildings were large and well built.


³Phoenix Journal, op.cit., p.28c, also photograph p. 34d

⁴Information obtained through an interview with W.E.A. McArthur, local resident and miner since 1897, Greenwood B.C., June 18, 1958.
THE BOUNDARY MINING REGION, 1906

Mine or Smelter in Ruins

Community No Longer Exists


A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

THE BOUNDARY REGION IN 1906

Drawn by E. T. Clegg
The ore was shipped by railway. The town of Eholt was the railway divisional point of the CPR in the boundary district. The railway town of Eholt had a population of 400. The ore was delivered by railway from Eholt to the Granby Smelter at Grand Forks. The smelter was located in Grand Forks because the Kettle River nearby, could be used to remove smelting wastes. This smelter was the largest in Canada. It is well described in some history books. Its output was, for a time, the largest in the British Empire. The early smelter is shown in Photograph 2, on page 10.

Another large community developed at Greenwood. However it was not as large as Phoenix. The rich ore deposits of the Mother-Lode Mine and others were treated at the Greenwood Smelter. This early smelter is shown in photograph 3, on page 11. Residential communities grew up at Greenwood, Deadwood.

---

6 W.E. McArthur, loc. cit.
9 W.E. McArthur, loc. cit.
and the Mother Lode. They had populations of 2500, 100, and 400 respectively.\textsuperscript{11} A power dam was built at Boundary Falls\textsuperscript{12}

Photograph 2

THE GRANBY SMELTER AT GRAND FORKS AS IT APPEARED FIFTY YEARS AGO

\textbf{NOTE:} The sloped trestle on the left hand side of this photograph is the same as that protruding from the slag pile in Photograph 8.

Source: Cominco Magazine Archives, Trail, June, 1958.

\textsuperscript{11}W.E. McArthur, \textit{loc.cit.}

\textsuperscript{12}Percy F. Godernath, \textit{op.cit.}, p. 16, (photograph of Boundary Falls in the early days.)
for the Greenwood Smelter and at Cascade\textsuperscript{13} for the Granby Smelter. These plants provided the smelters with power. Communities of 500 and 100 persons grew up around these power sites.\textsuperscript{14} These then were the communities of the Boundary Region as they appeared a half century ago. This Mining Region was, at that time, larger than the Rossland-Trail Mining Region.

\begin{center}
\textbf{Photograph 3}
\textbf{THE GREENWOOD SMELTER AS IT APPEARED FIFTY YEARS AGO}
\end{center}

\textbf{NOTE:} This photograph was taken from approximately the same position as Photograph 9.

\textbf{Source:} Cominco Magazine Archives, Trail, June, 1958.

\textsuperscript{13} The Phoenix Journal, \textit{loc.cit.}, 1905, p. 37, (Photograph of the Cascade Power Dam in the early days).

\textsuperscript{14} W.E. McArthur, \textit{loc.cit.}. 
The major employer in the Boundary District in the early days was the Granby Mining Company. When the mines of the area showed signs of exhaustion, the Company made no attempt to find new ore bodies or to stabilize the regional economy in anyway. This policy is very different from that of Cominco's, who, in 1906, expanded the sources of ore so that its smelter operations could be made a relatively stable industry. The Granby policy was to shut-down as soon as the ore deposits became low-grade. The result was ruin for the Boundary Region and today the area appears very different. Within a few short years Phoenix City was completely abandoned and the city and mines fell into ruin. The City of Phoenix has not appeared on maps for over thirty years. Photograph 4, on page 13, illustrates the condition of Phoenix City today. One of the few remaining buildings is shown in Photograph 5, on page 14. The permanent-type construction of some of the original buildings of Phoenix are illustrated by Photograph 6, on page 15. Here the skeleton of a solid brick building can be seen. The only landmark that remains to mark Phoenix is the First World War Memorial that stands alone in a grove of trees in a remarkably well-preserved state. Photograph 7, on page 15, shows the memorial as it appeared to the author.

---

When the mines of Phoenix and the Mother Lode were closed, the other dependent communities of the Region fell into ruin one by one. The Granby Smelter closed down and today only concrete foundations and mountains of slag mark the site of the great smelter as shown in Photograph 8, on page 16.

![Photograph 4](image)

**Photograph 4**

**THE RUINS OF PHOENIX CITY AS IT APPEARED IN JUNE, 1958**

*NOTE: This photograph was taken from point A on photograph 1, page 7. Most of the ruins have been over-run with forest growth.*

*Source: Photograph by the Author, June, 1958.*

The smelter at Greenwood was also closed and only the ruins can be seen today, as shown in the two views of Photograph 9, on page 17.

The communities of Deadwood, Mother Lode, Boundary
Falls, Eholt, and Cascade are all ghost towns today. There is little remaining on these townsites to indicate that thriving communities were once located there. The City of Greenwood has dropped to a small population of 363 in 1941. The

Photograph 5

THE LAST BUILDING IN PHOENIX CITY

NOTE: This building is marked by an x on Photograph 1, page 7. Note the size of the trees that have grown up at the front door. These trees are 30 to 40 years old. This is about the same number of years that Phoenix has been a ghost town.

Source: Photograph by the author in June, 1958.

Photograph 6

THE SKELETAL REMAINS OF A FINE MASONRY BUILDING IN PHOENIX AS IT APPEARS TODAY

Source: Photograph by the Author in June, 1958.

Photograph 7

A TOMBSTONE FOR PHOENIX WAR VETERANS --AND A DEAD CITY

Source: Photograph by the Author in June, 1958.
City of Grand Forks has survived and grown to a population of 1995, in 1956.\textsuperscript{17} "The economy of Grand Forks now depends upon agriculture, forestry, and lumber, although increasing attention is being given to mineral exploration."\textsuperscript{18} Without such diversification and expansion of the economic base of Grand Forks it too would likely have become a ghost town. But

\textsuperscript{17} Ibid
\textsuperscript{18} Ibid
NOTE: The smokestack shown in Photograph 9 is the same as that shown in Photograph 3, page 11. The last pots of slag can be seen clearly as they were dumped in the foreground. Remains of the old furnaces and trestles are clearly visible.

Source: Photograph by the Author in June, 1958.
Phoenix or some other community may well have survived if it too had a diversified base rather than just one enterprise — mining.

**Ghost Towns in the Rossland-Trail District.** Although the cities of Rossland and Trail have survived through many trying years, a number of other communities in this area did not. The first settlement in this District was the Hudson Bay Fort built at the confluence of the Columbia River and the Pend d'Orielle River. It was called Fort Shepherd and was founded in 1865. It was primarily a trading post for the lake tribes of the Salishan Indians. When the area became settled, trade fell off and the Fort was abandoned. Today the site of the Fort is marked only by a stone monument.

In 1898 ... the City of Brooklyn was a bustling community on the Arrow Lakes, opposite Deer Park. This point served as a landing place for supplies (coming up the Columbia on paddle wheelers) in the construction of the Columbia and Western Railway. A 'tote' road ran from Brooklyn to the tunnel at Farron. With the completion of the railroad to the coast, Brooklyn soon became a ghost town. 19

There were ten hotels ready for business by this time, (1898) . . . . . . . . . . . . . . . .

The population of over one thousand lasted for less than one year, for as the railroad progressed the town moved westward and soon nothing remained but skeletons of buildings. Doors, windows, and such that could be packed over the tote road were taken. A fire finished

the job and the lovely looking home of Bill Schneider is the last memory of what was perhaps the busiest railroad camp in B.C. 20

Today the site of Brooklyn is marked only by a large stone fireplace of the old CPR dining room. A large cemetery also remains. A number of these railroad towns followed the progress of the CPR westward. Since they depended upon the railway work crews, these railway communities were shortlived.

Ghost Towns of the Slocan District. A community of settlements based upon the rich ore deposits of the Slocan Area also grew rapidly at the turn of this century.

Photograph 10

THE CITY OF SANDON AS IT APPEARED IN 1898

NOTE: Today the City is abandoned and most of the buildings have been destroyed by floods and slides.

Source: British Columbia Provincial Archives as found in Cominco Magazine, June, 1958, Trail, B.C., p. 31.

Kate Johnson, Pioneer Days of Nakusp and the Arrow Lakes, (no publisher) 1951, p. 128-29-30.
In 1896 Sandon was the roaring center of the Slocan mining boom. (Photograph 10) ....

Sandon boasted the second hydro-electric plant in British Columbia. (A plant at Nelson started in 1896.) It began operating early in 1897. (A photograph on page 30 showed the Pelton wheel which activated the Sandon generator continuously for half a century).

The end came in September, 1955. Completely deserted and with the plank road rotting up and falling into the creek bed beneath, Sandon was swept out of existence on a foaming crest of a freshet. Pilings crumbled under the force of the water, the ancient buildings toppled and were borne grinding and grumbling into a matchstick timber jam. Beneath it lay the remains of that gallant plant, one of the first of its kind ever to be built in British Columbia.

The fate of Sandon is another example of what can happen to a community when its one basic activity stops. Other mining communities in this area have become almost ghost towns, such as Slocan City, population 326. Today the region's "existing economy is based on base-metals mining, logging, lumbering, and agriculture." Without this diversification the whole region may have soon disappeared like Sandon itself.

Ghost Towns of the Moyie District. "Moyie was a small mining town of about 500 population. The St. Eugene Mine and

---


22 Regional Industrial Index of British Columbia, op. cit. p. 62.

23 Ibid
concentrator were owned by the Consolidated Mining and Smelting Company .... About 200 men were employed .... Located on the east shore of Moyie Lake .... 24

Today Moyie has a population of about 50. 25 The mine is closed and only ruins remain as shown in Photograph 11.

Photograph 11
THE REMAINS OF THE ST. EUGENE MINE AND THE SETTLEMENT OF MOYIE IN THE BACKGROUND AS IT APPEARS TODAY

Source: Photograph by the Author in June, 1958.


25 From an interview with Harold Bennet, Cranbrook, B.C., and Frank Conrad, Moyie, B.C., oldtime residents, July 1, 1958.
"Lumberton was founded by A.E. Watts and was first known as Wattsburg." The American Lumber Company of Weyerhauser operated a large sawmill there which produced Silver Spruce. A community of 300 persons thrived here while a number of smaller camps were located on the upper Moyie River. The spruce stands of this area were unusually large for interior timber. These logs were as large as four and five feet in diameter. This heavy stand of timber lead to a prosperous lumbering operation which included a million dollar log flume. The period of maximum growth was from 1922-26. The name of this community was soon changed from Wattsburg to Lumberton. The logging operations of the Weyerhauser Company was to clear-cut. Under this system it was not long before all the good accessible timber was cut. There were no reserves. Today only pockets of mature timber remain amid inferior scrub second growth. The result was the closing of the mill and the community of Lumberton became a ghost town. The ruins of the mill are shown in Photograph 12, on page 23. The heavy concrete construction indicates the size and permanency of the original structure.

27 Bennet and Conrad Interview, *loc.cit.*
28 From a timber survey made by the Author in 1952 for the Forest Surveys Division of the B.C. Forest Service.
Photograph 12

THE RUINS OF LUMBERTON'S SPRUCE MILLS 
AS THEY APPEARED TODAY

NOTE: The large concrete construction used indicate that the original owners had visions of a relatively long lasting forest industry.

Source: Photograph by the Author in June, 1958.

The residential section of Lumberton is shown in Photograph 13.

Photograph 13

THE RUINS OF THE RESIDENTIAL SECTION OF LUMBERTON

NOTE: The lumber wagon in the foreground is well-preserved.

Source: Photograph by the Author in June, 1958.
The old sign on the concrete foundations shown in Photograph 14, gives mute evidence of the lumber operations that were once underway on this site.

The history of Lumberton is a further example of a community based on one resource -- the forests. If sustained yield management had been practised, the community would still be thriving today.

Photograph 14

FADING EVIDENCE OF THE EXISTENCE OF LUMBERTON'S MOYIE WHITE SPRUCE MILLS AS IT APPEARED IN JUNE 1958

NOTE: The sign reads, "A Super Spruce, B.C. Spruce Mills manufacturers of Moyie White Spruce."

Source: Photograph by the Author in June, 1958.
Ghost Towns of the Cranbrook District. The placer mining gold rush on Wild Horse Creek in the 1860's established a number of pioneer settlements in the Cranbrook District along the Kootenay and St. Mary rivers. Many of these communities became ghost town when the gold riches had been removed.

In the rush that followed the Perry Creek strike almost a century ago, a whole town sprang up complete with streets and homes. But "Oldtown" was shortlived. 29

The owners connected with the Sullivan ore, built a smelter at Marysville. In 1908 the smelter was closed and the company declared bankrupt. Marysville, which had mushroomed into a town of 600 people (approximately) during the smelter days, became not quite a ghost town. 30

There were many other communities such as Wyclyffe and Skookumchuck that saw both boom and bust. The most interesting ghost town, however, in the Cranbrook District is Fort Steele. In 1867 this community had between 5000 and 6000 persons. 31 It was, at first, a mining town called Bellview, but later became Fort Steele, named after Major General Sir Samuel Steele who brought the first Royal Canadian Mounted Police Detachment to British Columbia bringing law and order to this area at a critical time. When the Gold disappeared and the Canadian Pacific Railway went to Cranbrook

30 Ben Keer, *Cominco Magazine*, op,cit., p. 23.
as a major divisional point rather than Fort Steele, the latter community declined to almost a ghost town. Today some of its original buildings still stand. Photograph 15, shows the early type of home built by these pioneers.

Photograph 15

AN ORIGINAL LOG CABIN HOME OF 1860 BUILT AT FORT STEELE DURING THE GOLD RUSH

Source: Photograph by the Author in June, 1958.

An original building of the early commercial section of Fort Steele is shown in Photograph 16 on page 27. The date of construction, 1864, is still barely visible above the windows. The remains of "Fort" Steele are shown in

31 From an interview with Cliff White, a local resident and historian of Fort Steele, and the Author in June, 1958.
Photograph 17 below.

Photograph 16

A RETAIL STORE IN FORT STEELE BUILT IN 1864

NOTE: The date 1864 is barely visible above the window.

Source: Photograph by the Author in June, 1958.

Photograph 17

THE LAST TOWER OF FORT STEELE

NOTE: The historic plaque in the foreground describes the origin of the Fort.

Source: Photograph by the Author in June, 1958.
The old tower of the Fort shown there is used to hold water today. There are a few people still living in Fort Steele. But since the major activities of mining and law enforcement have disappeared, the City is very close to extinction.

**Ghost Towns in the Fernie District.** The rich coal deposits of the Fernie area gave rise to a number of communities which have since become ghost towns because of depletion of the coal deposits or because of poor market conditions for the coal. The Town of Morrissey grew to have a population of 3000 in 1899. The collieries were closed. Today it is a ghost town.

**Hosmer.** This busy little mining town with a population of about 2000 is located in the midst of the richest coal mining district in the Crow’s Nest Pass, some eight miles east of Fernie. Today only one or two buildings remain standing. Photograph 18, on page 29, shows the coal town of Hosmer as it appeared in 1913. Today the townsite of Hosmer appears as shown in Photograph 19, on page 29.

Another town called Coal Creek also grew around a coal mine. Today it is also a ghost town as shown in Photograph 20,

---

32 Form an interview with the staff of the Crow’s Nest Pass Coal Mining Company in Fernie on July 2, 1958.

Photograph 18

THE COAL TOWN OF HOSMER IN 1913


Photograph 19

THE TOWNSITE OF HOSMER AS IT APPEARED IN JULY, 1958

NOTE: The views of photograph 18 and 19 are taken from approximately the same spot. The mountains in the background correspond approximately in outline.

Source: Photograph by the Author in July, 1958.
Photograph 20

THE GHOST TOWN OF COAL CREEK AS IT APPEARED IN JULY, 1958

NOTE: The old coal chutes appear on the mountainside in the background.

Source: Photograph by the Author in July, 1958.

Corbin was a large coal town located about forty miles south of the main highway passing through Natal, B.C., in a setting of glaciers and peaked mountains of the Rockies. This town had a population of about 3000 in 1904. Its collieries closed after the first World War. The town was abandoned. Because of its isolation many of the buildings are

34 Crow's Nest Pass Mining Company, loc.cit.
Photograph 21

THE CITY OF CORBIN ABOUT 1920

NOTE: At the center of the community the cleaning and loading plant can be seen. Its remains are shown in Photograph 22. Rows of smaller houses are barely visible just above the larger staff buildings on the left side of the Photograph. The remains of some of these are shown in Photograph 23. Coal Mountain, on the right, is a 100,000,000 ton surface deposit of high-grade coal.

Source: "Coal Mountain", a pamphlet printed by Corbin Collieries Limited, Corbin, B.C., (n.d.)

The fate of these old coal towns is a result of their complete dependence upon one activity -- coal mining. If the economic base of any of these communities had been diversified enough it is doubtful if any of them would have become the ghost towns they are today. Thus the great waste that resulted from abandoning these cities could perhaps have been avoided by careful regional planning of the economic base.
THE CITY OF CORBIN AS IT APPEARED IN 1958

NOTE: The large building is what remains of the cleaning and loading plant shown in Photograph 21. The above photograph was taken at point x on Photograph 21.

Source: Photograph by the Author in July, 1958.

A RESIDENTIAL SECTION OF CORBIN AND THE OLD RAILWAY YARDS

NOTE: The homes are well-preserved. Photograph 21, shows the original buildings.

Source: Photograph by the Author in July, 1958.
B. Single Enterprise Communities Today

In British Columbia, even today, communities are still suffering from their dependence on one single resource. Drawing 4, on page 34, shows the location of some of these communities.

Britannia Beach, near Vancouver, was a community based on one of the largest copper and zinc mines in the Province. This year, however, the owners closed the mines because of heavy costs. The entire community is faced with the possibility of becoming a ghost town.

Kitimat is a planned community recently built in the Pacific Coast area. It is based on the smelting and refining of aluminum ore concentrates. Kitimat had every aspect of its operations planned, before the community and industry were built. Still, it is based on one enterprise — aluminum production. Because of adverse world market prices, the industry reduced the number of its employees very drastically. Hundreds of Kitimat families have moved to Vancouver seeking employment and government relief.

Fernie itself is a coal mining town.

This hard-luck community near the British Columbia-Alberta border may be dead as a coal town... things are tough here. Better than half the City's 800 wage earners have been unemployed since January 31 when the collieries, that have supplied Fernie's economic livelihood for 60 years, shut down for lack of coal markets... we have been dependent on the coal mines too long.
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

Title of Drg.

GHOST TOWNS AND DEPRESSED COMMUNITIES

By E. T. Clegg
The people of Fernie are not leaving the community. Efforts taken to stabilize the community are as follows:

Endorsement of a Fernie resolution asking for support in endeavours to have the proposed new federal penitentiary located in the Fernie area was given at the Saturday session of the Associated Boards of Trade....

Further aid has been given the coal mining industry by a coal subsidy granted by the federal government. 

First road work started this week.

Fernie has recognized only too well the problems with which it is faced because of its over dependence upon one enterprise -- coal mining. The City does have other activities such as lumbering and a brewery. The brewery, however, is looking for a new site with better market conditions. Continuation of this trend could spell eventual ruin for Fernie. The recent attempts by the City to strengthen and diversify its base could stabilize the community if they prove to be successful soon enough.

Copper Mountain was a community near Hedley, B.C., based upon the copper mine nearby. It had employed as many as 1000 men, but in 1957 it was closed. The ore was too low grade to mine. Today the community is abandoned.

---

35 Ron Thornber, "They'll Mine Tourist Dollars Now", The Vancouver Sun, February 14, 1958, p. 3.
39 From an interview with J.E. Parliament, Manager of
graph 24, shows the mine buildings and the residential area on the flats above the mine. The fate of Copper Mountain is only one of a long line of mining communities in British Columbia that have ended as ghost towns.

NOTE: The surface buildings of the mine appear on the mountainside while the residential community of Copper Mountain is just visible on the flat above.

Source: Photograph by the Author in June, 1958.

4. THE CAUSES OF FAILURE AND DEPRESSION

The factors that lead a single enterprise community

the Phoenix Copper Limited, (Former manager of Copper Mountain), Grand Forks, June, 1958.
into a position where it loses the major source of its employment can be summarized as follows:

1. A natural resource, for example, will remain productive for a period of time determined by the size of the resource and the rate of removal. When this time elapses, the community generally reduces in size and may disappear.

2. In some cases, the market price of a community's product can drop so low that the industry is forced to close. This can apply to almost any industrial activity as well as to the natural removal of a resource.

3. In other situations a product may no longer be demanded by the public because of changing fashions and needs of the buying public. This may also force the industry to close and a ghost town may develop.

4. If very stiff competition of other producers makes it uneconomical to continue producing the good in some community, then the industry must again close.

5. An industry may also lose its competitive position because of adverse costs of labor, materials, or transportation.

6. Again an industry may close because its owners wish it to -- regardless of the ill effects on the community or region.
5. The Problems of Community Depressions and Failure

A. Direct Costs

When an established community is faced with the loss of its economic base, people suffer in many ways. The people in the community's hinterland suffer, too. Families may move from their homes in order to find new employment. The value of property in the community may drop. Other minor activities that either served the local public or depended on the basic industry in some way may eventually move from the community following the loss of the basic industry. To other people in the Province and the nation this loss can also be a burden. The unemployed soon move to other cities which may increase the competition for jobs that could result in added unemployment in these cities, too. Most taxpayers support the unemployed through unemployment insurance, special works programmes, and other social aids. It costs everyone a lot of money.

The abandonment of a community is a great waste of human effort. The many idle homes, buildings, streets, and utilities of a ghost town are an investment worth many thousands of dollars. They should not be left to decay. Surely cities are one of man's proudest achievements. It appears unreasonable to first build a city and then to abandon it. To do this indicates a lack of forethought and planning.
B. Indirect Costs

The adverse effect on a community that loses its economic base can also be measured by a loss of revenue. When the production of some good stops, fewer trade dollars may flow into a region, a province, or a nation, because fewer export goods are flowing out. Regional, provincial, and national income are thereby reduced and therefore less money is available to invest in the needs of the people. In addition the revenues from the local property tax, provincial sales and resource taxes, and federal income tax are reduced. The loss of an entire community can have a drastic effect on an area's economy. Even seasonal, cyclical, and other fluctuations of the major enterprise in a community can produce somewhat the same ill effect. For example, the Municipal District of Tadanac produces lead and zinc primarily. The number of unemployed persons in the whole surrounding region rises and falls with the market price of lead and zinc. When some of the people become unemployed there is no alternative source of basic employment. Such economic fluctuations or community failures are a waste of human effort and a burden to many taxpayers.

In conclusion, then, to just leave a community to decay and ruin after the resource has been depleted or the major enterprise has collapsed is a great loss for all people. Even the effects of the economic fluctuations on the major enterprise can result in a waste of human energy and talent.
6. THE ROLE OF THE REGIONAL PLANNER

The problem of the single enterprise community is a real challenge to planning in Canada today. There will be no one perfect solution. Any answer requires the full consideration of all the social, economic, and physical aspects of life within that community and its hinterland. It requires the cooperation of governments, companies, and the people themselves. Each profession has a role to play in shaping the environment of the single enterprise community to transform it into a better place to live. Each of the factors contributing to the achievement of this goal must be guided and integrated so that they will be directed to do the most good for all people. Both the urban and rural habitat must be considered and developed as an integral part of the whole regional community. No other profession is so equipped to perform these broad tasks as regional planning. The problem of this Thesis then, is a problem in regional planning.
CHAPTER II
A SURVEY OF THE PROBLEMS OF THE
ROSSLAND-TRAIL REGION

1. ROSSLAND-TRAIL AREA

A. Townsites

Rossland is a small community (population 4,344)\(^1\) in the West Kootenay Area of southern British Columbia. This City was built at an elevation of more than 3,400 feet, in the Monashee Mountains very near to the Columbia River just before it crosses the International Border. Rossland's townsite, of approximately 1,200 acres, spreads over a number of rolling hills that are in turn surrounded by higher peaked mountains. The community is neatly laid out in a compact grid-pattern. The central core consists of commercial buildings along a main street — called Columbia Avenue. A belt of small green farms surrounds the urban area and separates it from the wooded hills beyond. The rugged alpine setting of Rossland gives it a striking townscape.

Trail is a somewhat larger city (population 11,395).\(^2\)


\(^2\)Ibid
built very near to Rossland but farther down the mountainside on the banks of the Columbia River. Urban development is restricted to flat river benches which are separated by deep gulleys and the river itself. The original townsite, at the mouth of Trail Creek, was sharply confined in area by steep mountains on one side, and the smelter development on the other. Growth in Trail has overflowed up onto the steep hillsides enclosing it and even across the river to nearby flat river benches. The urban layout, as a result, is loose and disjointed. The hills about the community have lost their covering of vegetation because of logging, fire, and finally, the smelter fumes. The smoke damage to farms in the area has resulted in numerous law suits against Cominco in past years. Photograph 25, on page 43, illustrates the toxic effect of sulphur dioxide fumes on *ulmus* and *acer* species of deciduous growth. Trail's most characteristic features are first, its great industrial development, and second, the barren landscape with patches of planted exotics. Aerial Photographs 26 and 27, on pages 44 to 47, show the City of Rossland and the City of Trail as they appeared in 1956 and 1957 respectively.

**B. History**

Rossland was once the Golden City of British Columbia. It was incorporated in 1897 under the Speedy Incorporation of Towns Act. Its history began with the discovery of one of
the world's richest gold mines -- the famous Red Mountain Gold Mines.

... the capitalists began to gather upon the top of Red Mountain, Rossland became a proud name upon the map of British Columbia ... in 1901 it had grown into a City of 7000 ....

These fabulous ore deposits gave birth to the City of Trail in 1901 following the construction of a smelter there to refine the Rossland ore. The City of Trail derived its name from the trail that was travelled from Trail to Rossland. Rossland grew as a rich mining community for twenty

Photograph 25

THE TOXIC EFFECT OF SULPHUR DIOXIDE ON THE FOLIAGE OF ACER SACCHARINUM AND ULMUS AMERICANA

NOTE: The fumes will kill all the leaves on a tree and the tree itself if concentrations of the gas are heavy. Coniferous species are more vulnerable because the fume deposits collect on the evergreen needles and destroy them over the years. Deciduous species lose their leaves each year and are less vulnerable.

Source: A summer essay for Forestry 498 in 1951 by the Author at the University of British Columbia.

3F.W. Howay, British Columbia from the Earliest Times
NOTE: Heavy forest growth and many green fields surround the City.

Photograph 27

THE CITY OF TRAIL

NOTE: Much of the land surrounding the City does not have any forest growth. Green patches near the industrial area were planted by Cominco.

years before the ore deposits were finally depleted. Many of the mine workers in Rossland found work at the smelter in Trail. The City of Rossland, in this way, escaped the fate of becoming a ghost town, like Phoenix, Sandon, Corbin, and many other old mining towns. Rossland became a residential area and Trail became the work center. Following a municipal financial crisis, the Consolidated Mining and Smelting Company withdrew its industrial plants from the City of Trail by incorporating them in the Municipality of Tadanac on December 21, 1922. On December 8, 1952, the Village of Warfield separated from Trail. The community of Trail is thus not only geographically divided by its broken topography, but also legally divided by its many municipal boundaries.

Table I, on page 49, illustrates the population changes in the Rossland-Trail Area for the past 65 years. It can be seen that Rossland City was once the dominant city within the Rossland-Trail Region up to about 1916. At that time nearly two-thirds of this Region's population lived in Rossland. Since then, however, Trail City has become the dominant center and now holds over two-thirds of the Region's population. However, the City of Rossland has, from that time, not only maintained its population, but has more than

**TABLE I**

POPULATION CHANGE AND DISTRIBUTION IN ROSSLAND-TRAIL AREA FROM 1891 TO 1956

<table>
<thead>
<tr>
<th>Year</th>
<th>Population per cent</th>
<th>Population of Total</th>
<th>Trail Tadanac per cent</th>
<th>Total</th>
<th>Rossland-Tadanac Tadanac</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>1000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>100</td>
<td></td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>1895</td>
<td>7500&lt;sup&gt;a&lt;/sup&gt;</td>
<td>88</td>
<td>1000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>12</td>
<td>8500</td>
</tr>
<tr>
<td>1901</td>
<td>6156</td>
<td>84</td>
<td>(1200)</td>
<td>16</td>
<td>7356</td>
</tr>
<tr>
<td>1911</td>
<td>2826</td>
<td>66</td>
<td>1460</td>
<td>34</td>
<td>4286</td>
</tr>
<tr>
<td>1921</td>
<td>2097</td>
<td>38</td>
<td>3020</td>
<td>62</td>
<td>5409</td>
</tr>
<tr>
<td>1931</td>
<td>2848</td>
<td>26</td>
<td>7573</td>
<td>74</td>
<td>10885</td>
</tr>
<tr>
<td>1941</td>
<td>3657</td>
<td>27</td>
<td>9392</td>
<td>73</td>
<td>13559</td>
</tr>
<tr>
<td>1951</td>
<td>4604</td>
<td>28</td>
<td>11430</td>
<td>72</td>
<td>16513</td>
</tr>
<tr>
<td>1956</td>
<td>4344</td>
<td>27</td>
<td>11395</td>
<td>73</td>
<td>16064</td>
</tr>
</tbody>
</table>

<sup>a</sup>Lance H. Whittaker. *The Golden City* (Rossland Miner Limited, 1949) p. 3

**NOTE:** Figure in bracket is author's estimate.

**Source:** Dominion Bureau of Statistics, *Canada Census* (Ottawa: Queens' Printer, 1951).
doubled it in thirty years.

Table II, on page 51, illustrates the rate of population increase. Rossland had a phenomenal growth rate in the early days but later it dropped rapidly until 1921, when it again increased. Trail has grown faster than British Columbia, from 1921 to 1941. In recent years, Trail and Rossland have both lost population. This is not a healthy sign. It indicates that the basic employer, Cominco, is experiencing some hardships.

2. THE ROSSLAND-TRAIL REGIONAL DELIMITATION AND SETTLEMENT PATTERN

A. Delimitation of the Region and Core

In order to limit our survey and analysis to some clearly defined area, a delimitation of the Rossland-Trail Regional boundaries will be undertaken at this time.

Cities seldom exist as independent islands. Each community is influenced by, and in turn influences, other communities. The Trail area, at the core, exerts a very definite influence upon the surrounding hinterland communities, largely as a result of the Consolidated Mining and Smelting Company of Canada. The extent of this influence will be used to delimit a Rossland-Trail Region. The problems of Cominco, at the core of such a Region, are believed to be the same problems which strongly influence people and communities within the entire Region so delimited. Periods of depression
TABLE II

A COMPARISON OF POPULATION GROWTH IN ROSSLAND, TRAIL, AND BRITISH COLUMBIA FROM 1891 TO 1956

<table>
<thead>
<tr>
<th>Year</th>
<th>Rossland</th>
<th>per cent\textsuperscript{a}</th>
<th>Trail</th>
<th>per cent\textsuperscript{a}</th>
<th>Rossland</th>
<th>per cent\textsuperscript{a}</th>
<th>Trail</th>
<th>per cent\textsuperscript{a}</th>
<th>Tadanac</th>
<th>per cent\textsuperscript{a}</th>
<th>British Columbia</th>
<th>per cent\textsuperscript{a}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>1000\textsuperscript{b}</td>
<td>6156</td>
<td>2826</td>
<td>1460</td>
<td>4286</td>
<td>2848</td>
<td>2848</td>
<td>7573</td>
<td>10885</td>
<td>392480</td>
<td>98173</td>
<td></td>
</tr>
<tr>
<td>1901</td>
<td>6156</td>
<td>616</td>
<td>1460</td>
<td>178657</td>
<td>82</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911</td>
<td>2826</td>
<td>-54</td>
<td>3020</td>
<td>4286</td>
<td>178657</td>
<td>82</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>2097</td>
<td>-26</td>
<td>107</td>
<td>26840</td>
<td>120</td>
<td>524582</td>
<td>34</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1931</td>
<td>3657</td>
<td>28</td>
<td>3952</td>
<td>694263</td>
<td>32</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>4604</td>
<td>-6</td>
<td>11430</td>
<td>34860</td>
<td>18</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>4344</td>
<td>-6</td>
<td>11395</td>
<td>-3</td>
<td>1398464</td>
<td>20</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>4344</td>
<td>-6</td>
<td>11395</td>
<td>-3</td>
<td>1398464</td>
<td>20</td>
<td>98173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}The percent is calculated as an increase over the preceding census.

\textsuperscript{b}Lance H. Whittaker. The Golden City. (Rossland Miner Limited, 1949) p. 3

Source: D.B.S. Canada Census. (Queen's Printer, 1951 and 1956.)
and prosperity in Cominco's operations, are periods of depression and prosperity for the entire Region.

Regional Boundaries. The extent of the Trail Core Area's influence will be measured by the degree of economic, social, and physical orientation of the surrounding settlements toward the Core.

Table III, on page 53, illustrates the degree of economic orientation by the number of workers that each satellite community provides the central industry in relation to the total labor force available in each community. In addition to the Cominco employees, a large part of the labor force in the satellite towns travel to the central city for other forms of employment. The large number of workers that depend on central activities is a good measure of the economic influence of the Trail Core Area. Table IV, on page 54, indicates how many hinterland communities provide homes for Cominco workers.

Indicators of social and economic orientation toward the core are shown by Table V, on page 55. This table shows the large number of non-resident births that occur in Trail. This indicates that people from the satellite communities use the hospital and medical facilities of Trail. Table VI, on page 56, illustrates the large number of retail outlets that are located in the core area on a per 1,000 population basis. The number of retail outlets at the core exceeds the number shown for the Province. Rossland, however, one of the satel-
### TABLE III

THE LABOR FORCE IN COMMUNITIES SURROUNDING TADANAC
EMPLOYED AT THE CONSOLIDATED MINING
AND SMELTING COMPANY

<table>
<thead>
<tr>
<th>Community</th>
<th>Total Community Labor Force</th>
<th>Employed at Cominco</th>
<th>Per Cent of Total Employed at Cominco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail</td>
<td>2956</td>
<td>2366</td>
<td>80</td>
</tr>
<tr>
<td>Rossland</td>
<td>1115</td>
<td>680</td>
<td>61</td>
</tr>
<tr>
<td>Warfield</td>
<td>(816)</td>
<td>204</td>
<td>25</td>
</tr>
<tr>
<td>Castlegar</td>
<td>(700)</td>
<td>314</td>
<td>45</td>
</tr>
<tr>
<td>Kinnaird</td>
<td>(520)</td>
<td>196</td>
<td>38</td>
</tr>
<tr>
<td>Fruitvale</td>
<td>(550)</td>
<td>418</td>
<td>76</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6657</strong></td>
<td><strong>4178</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>

NOTE: Figures inside the brackets were calculated from census population figures divided by the average ratio of the labor force to population in Rossland and Trail of 2.5.

Source: D.B.S. Canada Census. (Queen's Printer, 1951 and 1956).

Personal correspondence of the Author with the Consolidated Mining and Smelting Company, February, 1958.
### TABLE IV
WHERE COMINCO EMPLOYEES LIVE

<table>
<thead>
<tr>
<th>Place of Residence</th>
<th>Hourly-Rated</th>
<th>Salaried</th>
<th>Total</th>
<th>Per Cent Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail</td>
<td>1662</td>
<td>704</td>
<td>2366</td>
<td>55</td>
</tr>
<tr>
<td>Rossland</td>
<td>506</td>
<td>174</td>
<td>680</td>
<td>16</td>
</tr>
<tr>
<td>Fruitvale</td>
<td>361</td>
<td>57</td>
<td>418</td>
<td>10</td>
</tr>
<tr>
<td>Annable</td>
<td>76</td>
<td>9</td>
<td>85</td>
<td>2</td>
</tr>
<tr>
<td>Castlegar</td>
<td>281</td>
<td>33</td>
<td>314</td>
<td>7</td>
</tr>
<tr>
<td>Warfield</td>
<td>122</td>
<td>82</td>
<td>204</td>
<td>5</td>
</tr>
<tr>
<td>Casino</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Kinnaird</td>
<td>161</td>
<td>35</td>
<td>196</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3174</strong></td>
<td><strong>1095</strong></td>
<td><strong>4269</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Personal Correspondence of the Author with the Personnel Department of Consolidated Mining and Smelting Company of Canada. (Trail, February, 1958).
TABLE V

SOME BIRTH, DEATH, AND MARRIAGE STATISTICS
FOR ROSSLAND, TRAIL, AND BRITISH COLUMBIA IN 1955

<table>
<thead>
<tr>
<th></th>
<th>Births</th>
<th>Rossland</th>
<th>Trail</th>
<th>British Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>109</td>
<td>566</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>59</td>
<td>163</td>
<td></td>
<td>17366</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>179</td>
<td></td>
<td>16772</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>342</td>
<td></td>
<td>34138</td>
</tr>
<tr>
<td>Illegitimate</td>
<td>2</td>
<td>10</td>
<td></td>
<td>2062</td>
</tr>
<tr>
<td>Non-resident</td>
<td>21</td>
<td>241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others(^a)</td>
<td>14</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth rate(^b)</td>
<td>2.0</td>
<td>3.0</td>
<td>2.6</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>172</td>
<td>25673</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>102</td>
<td>12857</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>70</td>
<td>12816</td>
<td></td>
</tr>
<tr>
<td>Death rate(^b)</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>93</td>
<td>11011</td>
<td></td>
</tr>
<tr>
<td>Marriage rate(^b)</td>
<td>0.8</td>
<td>0.7</td>
<td>0.8</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Births of residents outside the city.

\(^b\)Rates are per 1000 persons.

## TABLE VI

THE DISTRIBUTION OF RETAIL STORES AND TRADE IN ROSSLAND, TRAIL, AND BRITISH COLUMBIA

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Rossland</th>
<th></th>
<th>Trail</th>
<th></th>
<th>British Columbia</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total no. of Stores</td>
<td>Total Trade(^a) per 1,000 persons</td>
<td>Total no. of Stores</td>
<td>Total Trade(^a) per 1,000 persons</td>
<td>Total no. of Stores</td>
<td>Total Trade(^a) per 1,000 persons</td>
</tr>
<tr>
<td>Food and Beverage</td>
<td>16</td>
<td>3.7</td>
<td>1159.7</td>
<td>52</td>
<td>4.6</td>
<td>4863.4</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>3</td>
<td>0.7</td>
<td>8</td>
<td>0.7</td>
<td>2074.3</td>
<td>1529</td>
</tr>
<tr>
<td>Automotive</td>
<td>2</td>
<td>0.5</td>
<td>12</td>
<td>1.0</td>
<td>3908.9</td>
<td>1593</td>
</tr>
<tr>
<td>Apparel and Accessory</td>
<td>5</td>
<td>1.2</td>
<td>192.1</td>
<td>16</td>
<td>1.4</td>
<td>961.0</td>
</tr>
<tr>
<td>Building Materials and Hardware</td>
<td>4</td>
<td>0.9</td>
<td>301.0</td>
<td>6</td>
<td>0.5</td>
<td>902.1</td>
</tr>
<tr>
<td>Furniture, Radio &amp; home appliances</td>
<td>4</td>
<td>0.9</td>
<td>154.0</td>
<td>11</td>
<td>1.0</td>
<td>928.5</td>
</tr>
<tr>
<td>Drug and Health</td>
<td>2</td>
<td>0.5</td>
<td>4</td>
<td>0.3</td>
<td>440</td>
<td>258</td>
</tr>
<tr>
<td>Second Hand</td>
<td>1</td>
<td>0.1</td>
<td>1</td>
<td>0.1</td>
<td>258</td>
<td>258</td>
</tr>
<tr>
<td>Other Retail</td>
<td>8</td>
<td>1.9</td>
<td>20</td>
<td>1.8</td>
<td>719.6</td>
<td>1457</td>
</tr>
</tbody>
</table>

\(^a\)In thousands of dollars.

lites, has fewer retail outlets on this basis, than the Province. It can be assumed then, that people in the hinterland communities travel to Trail to shop. Additional indicators or orientation, can be found from the numerous large retail, wholesale, financial, professional, and recreational services found in Trail but not in the surrounding communities. The yellow pages of the local telephone directory confirm this statement.

A number of physical factors tend to confine the above activities into a natural geographic region. This, however, is not as strong and clear a criteria of delineation as is the economic or social criteria. The east and west boundaries of the economic and social region are clearly defined physically by the Selkirk and Monashee Mountains. The southern boundary is limited by the international border. The northern boundary is limited, first, by the extent of existing road systems, and second, by the summit of the Kootenay and Columbia River mountain systems.

In this Thesis, any community whose inhabitants make over 50% of their trips for work, professional service, recreation, or a major purchase to Trail, rather than Nelson, Grand Forks, or any other major center, is considered to be oriented more to Trail than any other center and should therefore be included in Trail's sphere of influence.4 This

4 This measure is offered as a result of the Author's experience living in various communities in the Trail area.
measure could be made in the field to verify the hypothetical Region proposed herein. A sample survey of the population in each borderline community would likely indicate that all communities included in the proposed Rossland-Trail Region would make over 50% of their trips to the Trail Core Area.

Through consideration of all these social, economic, and geographic criteria, then, the regional boundary has been delimited as illustrated on Drawing 5, on page 59, by a broken line.

Regional Core Boundaries. Economic and social criteria can also be used to delineate the boundaries of a regional core area at the center of the Region. It is assumed, for this Thesis, that where people make over 90% of their major trips to the central city, such an area of intense interaction can be delineated as a regional core. Geographic criteria are of little value in distinguishing the core. However, the international border, the Rossland Range, and a part of the Selkirk Range, enclose a weak natural geographic area which agrees in general outline to that described by social and economic criteria. The regional core so derived is shown as a solid line on Drawing 5, page 59.

The settled area of the core includes the City of Trail, the Village of Warfield, the District Municipality

5Ibid
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

KEY
GENERAL REGION
REGIONAL CORE
SETTLEMENT TYPE
INDUSTRIAL
RESIDENTIAL
COMMERCIAL
PARK
DISTRICTS
1  WARFIELD
2  TRAIL CENTER
3  GLENMERRY
4  EAST TRAIL
5  TADANAC
ORIENTATION

REGIONS AND SETTLEMENT PATTERNS
of Tadanac, and the City of Rossland. These communities are located very close together. Tadanac, Warfield, and Trail are really only parts of one large city. Rossland is separated from this city by two miles of sparsely built-up land so that it acts like a suburb to the larger city. These communities together have a population of 18,115 but by including the population of the unincorporated area immediately adjacent to these communities the population would likely be nearer to 20,000. This state of continuous development engulfing a number of incorporated municipalities and unincorporated built-up land with a population of this size may be described as the minor metropolitan area of the Rossland-Trail Region. It is shown on Drawing 6, on page 61.

B. Settlement Patterns

The pattern of settlement within the Rossland-Trail Region shows the relationship of communities very clearly. These relationships will help to explain some of the characteristics of the Region.

The Trail settlement system has the major work center, producing refined metals, fertilizers, and chemicals, located in Tadanac, but the major commercial center is found in Trail.

---

6British Columbia, Department of Industrial Development, Bureau of Economics and Statistics, Regional Industrial Index of British Columbia, (Victoria: Queen's Printer, 1956), pp. 56,58,60.
A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

Title of Org.
THE ROSSLAND-TRAIL METROPOLITAN AREA

Org. No.
6

By E. T. Clegg
Around this commercial and work nucleus a number of residential settlements have grown. The size of the settlements shown on Drawing 5, page 59, is related diagrammatically to the actual area covered by them. This illustrates their relative population and perhaps importance. The settlements are broken into separate districts which are located on individual river benches or are separated as individual municipalities. Settlement is not continuous but it is compact in the sense that most of the available, buildable land very near to the nucleus has all been built-up.

The Rossland settlement system is strongly oriented towards the Trail nucleus. Rossland no longer has any industry but its small commercial still serves a small hinterland of settlement. The Rossland and Trail systems together are approaching the condition of a metropolitan area as described on page 60.

The Castlegar settlement system has its own work center producing lumber and pulp, and its own commercial center. This is primarily due to the Celgar pulp and lumber development in that area. The hierarchy of settlements around the Castlegar nucleus are further away than are Trail's and are more weakly oriented toward the center. The Castlegar satellites are largely independent agricultural communities. The orientation of the Castlegar system towards Trail is being weakened very much by Celgar's industrial activity in the Castlegar area.
The three settlement systems together are inter-related by the social, economic, and physical criteria described under Regional Boundaries, on page 52, as well as by a common use of various facilities. Each settlement type performs its particular activity as a necessary part of the whole organic Region. But this regional network of systems derives its basic stimulus today from the major employer -- Cominco.

3. MUNICIPAL REVENUES

A. Population Growth and Its Problem

The cities of Rossland and Trail, like most urban areas in Canada, have had a great population increase in recent years. From Table II, on page 51, the range of population change is shown. In Rossland and Trail populations have increased from 100% to 600% in some decades. Rossland has lost as much as 70% of its population in one decade. These extreme fluctuations in population bring many problems to the cities and their Region.

Urban growth creates many problems.

The planning problems faced by British Columbia's small communities stem largely from the factor of rapid urban growth ... urban communities require a wider range and a higher standard of municipal services ... water mains ... more administrative personnel ... more schools, and ... many other facilities ... fire departments, waste disposal systems ... storm water mains ... housing accommodations ... health and welfare facilities....

For Canada ... an increase in population of some twenty-eight million by 1980. It is anticipated that the increase will be concentrated very largely in cities and towns. The implications ... for social, capital, a and municipal services are clear ... will the financial resources of the municipalities be adequate to meet the requirements?  

These are also the problems created by population growth in the Rossland-Trail Region. The extreme population fluctuations in this area have made the problem even more acute. Rapid increases in population create demands for more housing, utilities, and local services. Abrupt drops in population, on the other hand, leave many homes vacant, utilities idle, and services not fully utilized. The people remaining in such communities must still pay for past expenditures on utilities and other overhead costs. This narrow tax base carries a heavier tax burden. Population fluctuations can, therefore, be a hardship on any community.

Other purely local factors have accentuated the problems of growth in this Region. Rossland as a boom town, was built very rapidly. Buildings were largely of crude frame construction. Services were temporary. Water and sewer lines were often open flumes. After the mines closed, Rossland was unable to finance large works projects to replace such inadequate structures. They remained in Rossland

---

for many years. The town center of Rossland was completely burned, first in 1902, a second time in 1927, and again in 1929. These firey ravages put the City even further back in its efforts to provide satisfactory homes and services.

In Trail, rapid growth and the lack of good planning resulted in haphazard development. Housing grew on steep hillsides. People were crowded into homes converted into apartments and duplexes to meet the demand of rapid population growth. Providing adequate roads and services to these areas has been a great burden for Trail's taxpayers. The broken nature of its geographic layout together with the problem of being divided into three separate municipalities have made services and development unnecessarily expensive.

Trail was dominated by Cominco for many years. It was almost a company town. Cominco saw no real value in improving local services or promoting town development on the basis that the smelter worker would only be burdened by the cost through taxes. The Company's influence on local affairs did not, therefore, encourage and perhaps discouraged sound development. This can be supported by examination of the years that any of the major works projects were undertaken. All are recent. For many years no large projects were undertaken.9

---

9Based on experience of the author in living and working in the Trail area for many years.
The result of rapid population growth and other factors, has thus, left a backlog of needs in Rossland and Trail, for good economical services and housing.

B. A Demand for Services

The people of Rossland and Trail earn an annual per capita income that is the highest in Canada.\textsuperscript{10} Table \textit{VII}, on page 67, shows the average income in the Rossland, Trail, and Kimberley areas for the past ten years. Table \textit{VIII}, on page 68, shows the high proportion of workers in the upper income brackets. The income is well above the average for Canada in each year. A population with such a high purchasing power creates a strong demand for a high level of municipal services. The people buy good homes and cars and they expect the municipality to supply good services and roads at the same expensive level. Table \textit{IX}, on page 69, shows, however, that the cities of Rossland and Trail have one of the lowest municipal incomes for cities of this size in British Columbia. The problem of service demands is very evident in communities of the Rossland-Trail Region.

\textellipsis a wide and ever growing range of services which are exclusively of local concern, services which are desired by the citizens and are to be maintained up to standards demanded by the citizens. Such, for example, would be the provision of street lighting, fire protection, parks, tree trimming, snow removal, sidewalks,

TABLE VII

AVERAGE PER CAPITA INCOME AND INCOME TAXATION IN THE ROSSLAND, TRAIL, AND KIMBERLEY AREA AND CANADA FROM 1946 TO 1955

<table>
<thead>
<tr>
<th>Year</th>
<th>Rossland, Trail, and Kimberley</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income</td>
<td>Income Tax</td>
</tr>
<tr>
<td>1946</td>
<td>$2183</td>
<td>$288</td>
</tr>
<tr>
<td>1947</td>
<td>2441</td>
<td>247</td>
</tr>
<tr>
<td>1948</td>
<td>2815</td>
<td>319</td>
</tr>
<tr>
<td>1949</td>
<td>3012</td>
<td>205</td>
</tr>
<tr>
<td>1950</td>
<td>3101</td>
<td>235</td>
</tr>
<tr>
<td>1951</td>
<td>3486</td>
<td>295</td>
</tr>
<tr>
<td>1952</td>
<td>3789</td>
<td>431</td>
</tr>
<tr>
<td>1953</td>
<td>3853</td>
<td>418</td>
</tr>
<tr>
<td>1954</td>
<td>3787</td>
<td>340</td>
</tr>
<tr>
<td>1955</td>
<td>4113</td>
<td>377</td>
</tr>
</tbody>
</table>

*This area is reported in 1955 as having the highest income per capita in Canada.

Source: Canada, Department of National Revenue, Taxation Division. *Taxation Statistics.* (Ottawa: Queen's Printer 1946-55), et passim.
### TABLE VIII

A CLASSIFICATION OF WAGE EARNERS IN ROSSLAND, TRAIL, AND BRITISH COLUMBIA

<table>
<thead>
<tr>
<th>Wage Class</th>
<th>Rossland Total</th>
<th>Per cent</th>
<th>Trail Total</th>
<th>Per cent</th>
<th>B.C. per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>$500-999</td>
<td>102</td>
<td>7.1</td>
<td>344</td>
<td>7.6</td>
<td>9</td>
</tr>
<tr>
<td>1000-1499</td>
<td>83</td>
<td>5.8</td>
<td>330</td>
<td>7.3</td>
<td>12</td>
</tr>
<tr>
<td>1500-1999</td>
<td>93</td>
<td>6.5</td>
<td>365</td>
<td>8.1</td>
<td>16</td>
</tr>
<tr>
<td>2000-2499</td>
<td>226</td>
<td>15.2</td>
<td>629</td>
<td>14.0</td>
<td>21</td>
</tr>
<tr>
<td>2500-2999</td>
<td>389</td>
<td>27.2</td>
<td>1271</td>
<td>28.2</td>
<td>14</td>
</tr>
<tr>
<td>3000-3999</td>
<td>348</td>
<td>24.3</td>
<td>1018</td>
<td>22.6</td>
<td>12</td>
</tr>
<tr>
<td>4000-</td>
<td>72</td>
<td>5.0</td>
<td>174</td>
<td>3.9</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1430</strong></td>
<td><strong>4507</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Totals and breakdowns do not always agree since all wage earners do not report for census purposes.

**Source:** D.B.S. Canada Census, (Queen's Printer, 1951)
### TABLE IX

A COMPARISON OF PER CAPITA REVENUES, EXPENDITURES, AND ADMINISTRATIVE COSTS IN 1956 FOR TRAIL, ROSSLAND AND OTHER MUNICIPALITIES

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population</th>
<th>Total Municipal Revenues or Expenditures Per Capita</th>
<th>Municipal Administration Costs Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rossland</td>
<td>4344</td>
<td>$61</td>
<td>$3</td>
</tr>
<tr>
<td>Kimberley</td>
<td>5774</td>
<td>87</td>
<td>4</td>
</tr>
<tr>
<td>Cranbrook</td>
<td>4562</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>Port Coquitlam</td>
<td>4632</td>
<td>65</td>
<td>4</td>
</tr>
<tr>
<td>Revelstoke</td>
<td>3469</td>
<td>94</td>
<td>4</td>
</tr>
<tr>
<td>Trail</td>
<td>11395</td>
<td>89</td>
<td>5</td>
</tr>
<tr>
<td>Nanaimo</td>
<td>12705</td>
<td>94</td>
<td>4</td>
</tr>
<tr>
<td>Penticton</td>
<td>11894</td>
<td>123</td>
<td>7</td>
</tr>
<tr>
<td>Prince George</td>
<td>10563</td>
<td>121</td>
<td>5</td>
</tr>
<tr>
<td>Prince Rupert</td>
<td>10498</td>
<td>101</td>
<td>7</td>
</tr>
<tr>
<td>British Columbia</td>
<td></td>
<td>95</td>
<td>4</td>
</tr>
</tbody>
</table>

*All cities, villages, and districts.*

recreation programmes, refuse removal and disposal, building inspection, etc. The range of such services increases as population increases and as the standard of public services expected by the citizens continues to rise.\textsuperscript{11}

C. Sources of Municipal Revenue

If municipal revenue was as adequate in the Rossland-Trail Region as are wages, then there would be no municipal revenue problem.

The fundamental problem of the municipalities is a financial one ... the fact that revenues which they can raise from the available sources are not sufficient to meet the mandatory expenditures which the local citizens want their councils to incur.\textsuperscript{12}

\textbf{Tadanac Tax Revenue.} The major problem of the Rossland-Trail Region is the present position of Tadanac. The District Municipality of Tadanac was incorporated by Cominco as noted on page 48, to help the City of Trail with its financial problems. Cominco offered to look after the servicing of its own plants and the adjacent residential property, as the independent municipality of Tadanac. The true effect of this incorporation was not felt in the Region until later. The Trail Council, in 1922, did not consider what a great source of tax revenue it was losing. The cities of Trail and Rossland, and to a lesser degree, the surrounding

\begin{footnotes}
\footnote{\textsuperscript{12}Ibid, p.359.}
\end{footnotes}
communities however, were faced in future years with increasing service costs resulting from the demands of the well-paid Cominco employees. People working in Cominco do not live in Tadanac, they live in the surrounding municipalities as shown in Tables III and IV on pages 53 and 54. The Cominco employee expects his municipality to provide good schools, paved roads, water and sewer services, good stores, a choice of recreation, and various other amenities. The municipalities are thus faced with providing the residential needs generated by Cominco but without the assistance of tax revenues from the large smelter plant. This anomaly has created a real hardship for communities in the Rossland-Trail Region.

In all cases, revenues from residential areas were insufficient to pay the cost of services to those areas. In all cases, commercial and industrial areas paid more taxes than the cost of servicing them.\(^{13}\)

The unbalanced relationships between Tadanac, Trail, and Rossland can be shown by the comparison of total assessments, total tax revenues, and total population within these municipalities. The assessments of land and improvements in Tadanac amounted to $44,680,408 whereas in Rossland and Trail the amount together was about half of this or $18,867,627 for Trail, and $5,805,311 for Rossland. The taxes levied

in Tadanac upon this assessment is at a much lower rate since it yields only $686,712,000 in taxes as compared to $633,851 for Trail and $144,766 for Rossland on their respective assessments. This points out the heavy taxation in Trail and Rossland as compared to Tadanac. The residing population in Tadanac is in direct contrast to its large tax base. Tadanac has only 325 residents, while Trail has 11,395, and Rossland has 4,344 residents. This indicates the imbalance — Tadanac, with a low population, has a tremendous tax resource, whereas Rossland and Trail, with great populations have very limited tax bases. This is shown in Drawing 7, on page 73.\(^{14}\)

The dilemma of local financing in the City of Trail was examined by B.C. Bracewell who recognized the problem and recommended that Cominco participate in local finances as an obligation to its employees, and the surrounding communities.

Heavy industry as a type of tax bearing property invariably pays in taxes more than the service it demands or gets. This is not at all unfair, as industry must assume some financial interest in the well-being of its employees and their families. Trail, as an organized municipality, does not benefit directly to any considerable extent from heavy industry (in Tadanac).

A prime need seems to be the appropriate sharing of costs of services which are of common concern and general benefit... and the desirability for these being borne

<table>
<thead>
<tr>
<th>TOTAL TAX REVENUE</th>
<th>TOTAL ASSESSMENTS</th>
<th>TOTAL POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TADANAC</td>
<td>ROSSLAND &amp; TRAIL</td>
<td></td>
</tr>
</tbody>
</table>

A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

Title of Drg.: REVENUES, ASSESSMENTS, & POPULATION IN TADANAC, ROSSLAND, & TRAIL

By E.T. Cle g o
on a wider base.... A start has been made with education costs (Cominco paid 83% of school taxes in 1958) and that suggests the possibility of similar treatment for social welfare and hospitalization charges.

In 1958 Cominco assisted on four work projects by giving $260,000 to Trail. This is a very different policy from what has been followed in past years. Still, the other surrounding communities like Rossland, Kinnaird, and Fruitvale, receive no assistance although they house many Cominco workers, as shown in Tables III and IV, on pages 53 and 54.

The need for revenues in Rossland, Trail, and other surrounding communities is even more acute than that found in an average municipality in Canada. This has resulted from the backlog of needs resulting from limited tax sources since most of the industry has been in Tadanac for many years. The increasing population and service demands have added to the problem. There are, however, still some other factors which create additional financial problems in communities of the Rossland-Trail Region as they have done in other communities across Canada.


17 Anderson, loc.cit.
The Property Tax. The property tax is one of the oldest taxes. At one time, land and buildings comprised the chief form of wealth. A tax on property at that time was the best and most just source of tax revenue. But today people have acquired other forms of wealth, such as investments, cars, furniture, and so on. Property and buildings are no longer the chief form of wealth.

"Whatever force there may have been once in the arguments that the total wealth of individuals corresponds roughly to the value of their houses and lots has disappeared."18

"The property tax no longer measures the ability to pay."19

But municipalities still depend primarily upon the property tax for revenue.

"The property tax produced 81% of the total tax revenue of urban municipalities in 1953, it also was the principal source of municipal revenue at Confederation."20

The income tax, however, does tax true wealth today.


20 Goldenberg, loc.cit.
This tax, however, is not levied by municipalities but rather by the Federal Government. The property tax is no longer adequate as a source of municipal revenue and should be supplemented in order to provide sufficient revenue that will enable municipalities to give a reasonable standard of services and utilities. The only alternative to this would be to have the municipalities lower their standard of services and utilities.

High Property Taxation and Other Revenue Sources. Municipalities are generally depending more and more upon other sources of revenue such as provincial grants. This can be shown to be true in the City of Rossland by Table .X., on page 77. Here total municipal tax revenues, (largely property taxes), are compared to total municipal revenues on a per capita basis from 1921 to 1955 for Rossland and British Columbia. These figures show that in 1921, Rossland derived $31,899 largely from property taxes. This is about 43% of their total revenues of $74,071. However, in 1955 total tax revenues (property tax) amounted to $132,559 or only 28% of the total revenues of $365,346. At the same time property tax revenues increased from $15 to $28 per capita while total revenues increased from $37 to $91 in the same period. The City of Rossland, like other communities, is thus depending less and less upon property tax revenues. In comparing Rossland to British Columbia, however, the total property tax revenue change from 1921 to 1955 is very much more in
TABLE X

REVENUES OF THE PROVINCE AND ROSSLAND

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Tax Revenue</th>
<th>Revenue</th>
<th>Per Total</th>
<th>Per Capita</th>
<th>Per Total</th>
<th>Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>British Columbia</td>
<td></td>
<td>Rossland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tax Revenue</td>
<td>Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Per Total</td>
<td>Per Capita</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>579</td>
<td>28005</td>
<td>48</td>
<td>86489</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1953</td>
<td>571</td>
<td>23111</td>
<td>42</td>
<td>64790</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>563</td>
<td>18865</td>
<td>33</td>
<td>59574</td>
<td>106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1948</td>
<td>546</td>
<td>13855</td>
<td>25</td>
<td>47793</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1945</td>
<td>422</td>
<td>9251</td>
<td>21</td>
<td>29140</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>333</td>
<td>7757</td>
<td>23</td>
<td>21626</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1938</td>
<td>302</td>
<td>7085</td>
<td>23</td>
<td>21906</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1935</td>
<td>274</td>
<td>6626</td>
<td>24</td>
<td>13315</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1933</td>
<td>273</td>
<td>6583</td>
<td>24</td>
<td>13077</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930</td>
<td>269</td>
<td>7269</td>
<td>27</td>
<td>13773</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1927</td>
<td>249</td>
<td>9407</td>
<td>37</td>
<td>17026</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1924</td>
<td>284</td>
<td>8943</td>
<td>31</td>
<td>15475</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>281</td>
<td>8512</td>
<td>30</td>
<td>14283</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

continued ....

| 1955 | 4606        | 132559      | 28        | 365346    | 91         |
| 1953 | 4606        | 114022      | 25        | 326730    | 82         |
| 1951 | 4606        | 87835       | 19        | 391071    | 98         |
| 1948 | 4250        | 73888       | 18        | 193432    | 46         |
| 1945 | 3657        | 67510       | 18        | 143860    | 40         |
| 1941 | 3609        | 67654       | 18        | 158971    | 44         |
| 1938 | 2848        | 48640       | 17        | 144801    | 51         |
| 1935 | 2848        | 48967       | 17        | 101941    | 36         |
| 1933 | 2848        | 43739       | 15        | 95359     | 34         |
| 1930 | 2245        | 30942       | 15        | 82371     | 37         |
| 1927 | 2400        | 34070       | 15        | 84540     | 35         |
| 1924 | 2100        | 29729       | 14        | 77720     | 37         |
| 1921 | 2100        | 31899       | 15        | 74071     | 37         |
TABLE X (continued)


NOTE: All the numbers under British Columbia are in thousands except the per capita columns. In order to provide comparable figures it was necessary to make a number of adjustments to these figures. In 1933 and 1935 the figures termed land taxes were used, in 1951 real and property taxes were used and in 1935 and 1938 current and non-current taxes were used. Populations for Rossland were obtained in part from the Canada Census 1951 and 1956, and in part from Financial Statements for Rossland, published by the City of Rossland. School grants for the years 1951-52, 1953-54, and 1955-56 were added to the 1951, 1953, 1955 figures since such grants were normally included in past years. These grants were found in the Annual Reports for the British Columbia Department of Education for these years as published by the Queen's Printer, Victoria. Rossland school expenditures were included in District Eleven. The share for Rossland was calculated in proportion to the City's population. School expenditures for 1951 and 1953 were unusually high.

The figures for British Columbia include all cities, villages, and municipal districts as recorded by the Department and published in their annual report.
Rossland. Property taxes in British Columbia in 1921 averaged $30 per capita, and in 1955 increased only to $48 per capita or an increase of over 50%. In Rossland the increase from $15 to $28 is almost 100%. The increase in total revenues for the Province as a whole of $50 in 1921 to $150 in 1955 compares favourably to the increase of these revenues in Rossland of $37 to $91. From this analysis it is evident that Rossland has increased property taxes very much more than the average municipality in British Columbia. It is of interest to consider the change in the purchase value of the dollar in the same years. Table X, on page 80, shows the change in the consumers index over the past 30 years. If this is taken to indicate the changing dollar value, then a change of from 75 in 1925 to 116 in 1955 can be described as a loss in 1955 of 1/3 of the purchasing value of the dollar from what it was in 1925. Considering this change then, the increase in property taxes of Table X, on page 77, is not providing any more in the way of services in 1955 for the amount of money spent than it did in 1921. Drawing 8, on page 81, illustrates the changes in municipal revenues in Rossland and British Columbia from 1921 to 1955.

Of particular interest from the above analysis is the fact that property taxes have increased very much in Rossland and probably have increased as well for other communities in the Rossland-Trail Region. This could indicate that the lack of Tadanac industrial tax revenues has shifted
### TABLE XI

A COMPARISON OF THE CONSUMER'S INDEX FROM 1925 TO 1955

<table>
<thead>
<tr>
<th>Year</th>
<th>Index</th>
<th>Year</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>74.6</td>
<td>1940</td>
<td>64.6</td>
</tr>
<tr>
<td>1926</td>
<td>75.9</td>
<td>1941</td>
<td>67.4</td>
</tr>
<tr>
<td>1927</td>
<td>74.6</td>
<td>1942</td>
<td>71.8</td>
</tr>
<tr>
<td>1928</td>
<td>75.0</td>
<td>1943</td>
<td>73.2</td>
</tr>
<tr>
<td>1929</td>
<td>75.8</td>
<td>1944</td>
<td>74.7</td>
</tr>
<tr>
<td>1930</td>
<td>75.3</td>
<td>1945</td>
<td>74.4</td>
</tr>
<tr>
<td>1931</td>
<td>67.9</td>
<td>1946</td>
<td>75.2</td>
</tr>
<tr>
<td>1932</td>
<td>61.7</td>
<td>1947</td>
<td>79.6</td>
</tr>
<tr>
<td>1933</td>
<td>58.8</td>
<td>1948</td>
<td>92.8</td>
</tr>
<tr>
<td>1934</td>
<td>59.6</td>
<td>1949</td>
<td>100.0</td>
</tr>
<tr>
<td>1935</td>
<td>59.5</td>
<td>1950</td>
<td>102.9</td>
</tr>
<tr>
<td>1936</td>
<td>60.9</td>
<td>1951</td>
<td>113.7</td>
</tr>
<tr>
<td>1937</td>
<td>61.9</td>
<td>1952</td>
<td>116.5</td>
</tr>
<tr>
<td>1938</td>
<td>63.8</td>
<td>1953</td>
<td>115.5</td>
</tr>
<tr>
<td>1939</td>
<td>62.9</td>
<td>1954</td>
<td>116.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1955</td>
<td>116.4</td>
</tr>
</tbody>
</table>

**NOTE:** 1949 is taken as the base of 100.

**Source:** Canada, Dominion Bureau of Statistics, *Consumer's Price Index*, (Ottawa: Queen's Printer).
A REGIONAL PLANNING ANALYSIS OF
A SINGLE ENTERPRISE COMMUNITY

MUNICIPAL REVENUES IN ROSSLAND & B.C.

Drawn by E. T. Clegg
the burden of taxation onto city property owners. Finally, with all the increase in property tax, the City is still very dependent upon other sources of revenue such as grants.

The dependence of communities on a higher government for revenue reduces local autonomy. A local government in these circumstances can not exercise full authority over how the money is spent. The local government is no longer as responsible for spending the money as it would be if they collected the taxes themselves and had to justify the need for it to the people of the community. The result is—that a good deal of local financing is out of the hands of local government. This lack of control and responsibility leaves the community less able to govern their own affairs.

With increased provincial assistance came increased supervision and direction ... if a democratic form of government is to survive at the national level it can only do so if it is built upon a foundation of local autonomy. Such a system of local government must ... have ultimate responsibility within their sphere of jurisdiction.... A unit of government that must carry the responsibility for the financing and administration of policies which are not of its making is contrary to the fundamental principles of responsible government...

4. MUNICIPAL FINANCES IN ROSSLAND AND TRAIL

The municipal finances of the City of Rossland have been kept in good order from the time of its inception some sixty years ago. Today its statement of revenues and expenditures

---

shows a surplus. Its bonded indebtedness of $271,079 in 1956 as compared to the total property assessments of $5,767,831 (land and improvements) is well under the 20% debt limit allowed by the Province.\textsuperscript{22} The growth of unpaid taxes in Rossland in recent years as compared to other cities of this size in the Province has been far less according to the Department of Municipal Affairs.\textsuperscript{23}

A closer examination of the financial structure of the City, however, indicates that the community has and still is experiencing some difficulties. Municipal statements have, in some years, shown a deficit. A deficit was incurred as recently as 1951, 1953, and 1955.\textsuperscript{24} Most municipalities have improved their collections of tax arrears but Rossland's has become worse. The mill rate in Rossland is much higher than the average mill rate in British Columbia, and other municipalities of the same size when compared on a similar basis of assessment. This is shown on Table XI on page 84.

It appears from the high taxes, low revenues, and recent deficits, that Rossland is not as prosperous as other communities of similar size in British Columbia. Rossland is faced with a financing problem if it is to provide at

\textsuperscript{22}City of Rossland, \textit{Municipal Financial Statement}, (Rossland: Rossland Miner Ltd., 1941 to 1956), et passim.

\textsuperscript{23}Municipal Statistics, \textit{loc.cit}. 1921,-24,-27,-30, -33,-35,-38,-41,-45,-48,-51,-53, and -55, et passim.

\textsuperscript{24}Rossland Municipal Financial Statement, \textit{loc.cit}. 
TABLE XII

A COMPARISON OF MILL RATES IN VARIOUS MUNICIPALITIES IN BRITISH COLUMBIA

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population</th>
<th>Mill Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rossland</td>
<td>4344</td>
<td>43</td>
</tr>
<tr>
<td>Port Coquitlum</td>
<td>4632</td>
<td>43</td>
</tr>
<tr>
<td>Cranbrook</td>
<td>4562</td>
<td>38</td>
</tr>
<tr>
<td>Alberni</td>
<td>3947</td>
<td>42</td>
</tr>
<tr>
<td>Duncan</td>
<td>3247</td>
<td>36</td>
</tr>
<tr>
<td>Courtenay</td>
<td>3025</td>
<td>40</td>
</tr>
<tr>
<td>Trail</td>
<td>11395</td>
<td>55</td>
</tr>
<tr>
<td>Prince Rupert</td>
<td>10498</td>
<td>45</td>
</tr>
<tr>
<td>Penticton</td>
<td>11894</td>
<td>41</td>
</tr>
<tr>
<td>Port Alberni</td>
<td>10373</td>
<td>35</td>
</tr>
<tr>
<td>Nanaimo</td>
<td>12705</td>
<td>41</td>
</tr>
<tr>
<td>Vancouver</td>
<td>365844</td>
<td>50</td>
</tr>
<tr>
<td>Average of all cities in British Columbia</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

NOTE: Trail has the highest mill rate of all municipalities in British Columbia.

Source: British Columbia, Department of Municipal Affairs, Municipal Statistics, (Victoria: Queen's Printer, 1956) p. 22.
least a similar level of services. Part 5, of this chapter, following on page 86, describes the poor level of utilities and services in Rossland.

Municipal finances in Trail have not been as sound as those in Rossland. Bonded indebtedness is ten times as much in Trail as in Rossland.\(^2^5\) The mill rate and assessment rates are higher in Trail than in all other cities in British Columbia. A comparison of mill rates in Table XI on page 84, shows how high the rate is in Trail.\(^2^6\) Drawing 9, on page 86, illustrates this comparison. The financial burden of works programmes was so heavy in recent years that it was necessary for the Trail Council to seek the aid of the Consolidated following the Bracewell Report.\(^2^7\) The Company is now providing some assistance. But with this assistance comes supervision. It is inevitable that the community will lose some of its self-governing features under the present system of paternal aid from Cominco.

The Village of Warfield was incorporated after the Village had been fully serviced and a large number of homes had been built by Cominco capital. In other words, all the major costs of services were paid by Cominco. It is doubtful if the tax base of the Village will be sufficient to meet

\(^{26}\) Municipal Statistics, op.cit., p.22.
\(^{27}\) Bracewell, loc.cit.
TOTAL MILL RATES

TRAIL 60
BRITISH COLUMBIA 30
ROSSLAND 20
NELSON 10
KELOWNA
TADANAC

A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

A COMPARISON OF TAXATION RATES
By E. T. Clegg
any recurrent expenses of this size when replacements are due.

5. UTILITIES AND SERVICES

A. Rossland

Utilities and services in the Rossland-Trail Region are poor. There has been little planning or thought given to these matters. This is particularly true of the City of Rossland. The gold rush left the community with many hastily constructed buildings. Many of its water and sewer lines were wooden flumes as mentioned on page 64. Many pipelines were so shallow that the winter frost often froze them. Most of the roads are unpaved and steep. There are few sidewalks and street lights. Winter snows often make traffic movement impossible. Rossland has a low municipal income as described under Municipal Finances on page 82. These utility and service deficiencies are very expensive for such a City to provide.

Waste disposal is the major problem in Rossland. The City is partially sewered but its outfalls run into Trail Creek, which flows through Warfield and Trail. The volume of sewage is too much for the small volume of water to oxidize with the result that a foul, ill-smelling stream flows to the Columbia River.

... many houses empty untreated sewage directly into Trail Creek. During the Spring, cesspools overflow onto the street and sidewalks; while a nuisance is generally
created at certain seasons over the whole area.

Installation of a sewerage system is needed in the interest of public health...

It is feasible to construct a sewerage system to adequately serve the area, treating the sewage in septic tanks and filtration beds...(this has not been done).

The disposal of solid waste is also inefficient. Garbage is piled at the very entrance to the City and burned. People travelling to Rossland are assailed by the unsightly view of piles of garbage and the obnoxious odor of burning rubbish. The cost of an incinerator is high. A fill disposal system would be difficult because of the very rocky ground.

The annual report of the Medical Health Officer for the Rossland-Trail Area (Health District Eleven), pointed out that Rossland's water system is dangerously exposed to pollution. The water deteriorates in the Spring and late summer. The report said that water supplies in Warfield, Robson, Fruitvale, Montrose, and Kinnaird were much worse than in Rossland. The Trail supply is chlorinated. The cost of providing a safe healthy water supply to these smaller communities is also very high.

B. Trail

The City of Trail suffers from poor utilities and the

\[28\text{R.W. Haggen, Civil Engineer, Report on Sewerage}\]
lack of good planning. Flood waters often pour down the steep mountains surrounding the community, deluging it with mountains of sand and torrents of water that plug drains and, erode soil, and interfere with traffic movement.

Widespread damage reports came in the wake of this morning's tremendous hail and rain storm....

Trouble spots were Rossland Avenue . . which at one point resembled a muddy river; Highway Three at Rivervale where a slide blocked the highway to a depth of three or four feet;

Blocked catchbasins saw much of Pine Avenue flooded and a coating of silt deposited across Victoria Avenue. It was reported that a retaining wall had collapsed on La-Rose Street....

It was clear, however, that the rains caused many thousands of dollars of damage.

At a point where Highway Three connects with Tadanac Municipality, the surface is completely blocked by a hugh pond of water and mud.30

Photograph 28, on page 90, shows part of Rossland Avenue following the rain storm. Photograph 29, on page 90, shows a deep gulley caused by water erosion.

The City of Trail is faced with floods from the Columbia River every Spring.

The rate of rise of the Columbia appears to be leveling out, but City Director of Works and Services, Ron S.

---


29 Rossland Miner, City Water, February 27, 1958, p. 1.

Photograph 28

FLOOD WATERS AND SILT ON A TRAIL STREET AFTER A RAIN STORM, JUNE, 1958

NOTE: Erosion and flooding are so severe that traffic is often blocked for hours.

Source: Photograph by the Author in June, 1958.

Photograph 29

GULLEY EROSION ON A SIDEHILL IN TRAIL IN 1958

Source: Photograph by the Author in June, 1958.
Taylor, has completed plans for combating flooding should it occur.

Water should begin to show shortly in the Kerr parking lot on Dewdney Avenue. Meanwhile there are approximately five locations where it may be necessary to pump domestic sewers.31

Photograph 30, below, shows how severe the flooding can be as in this case during 1948. Great walls of sandbags must be constructed to withstand such flood conditions. But despite all flood precautions the ravages of floods are still a threat to Trail.

Photograph 30

THE FLOOD WATERS OF THE COLUMBIA RIVER IN TRAIL IN 1948


Much of Trail is built on sidehills. The cost of building roads and retaining walls, providing services, and maintaining these areas is a burden to the City Works Department.

A large number of Trail's inhabitants live on the other side of the river. These people, together with those from other communities, must cross a small narrow, two-lane bridge when going to work or shopping in Trail. This regular traffic flow meets a bottleneck at the bridge since the narrowness and poor entrance make traffic movement slow.

"... the present Trail bridge has been a real bottleneck in traffic movement, it is slippery and dangerous when wet or icy...."\[32\]

The City of Trail has an inadequate water supply.

... manager of Seven-up (Trail) Ltd., who complained that his operations in Glenmerry was being jeopardized by inadequate water supplies.

I am sure he said ... that they could not very effectively control a fire with 10 pounds of water pressure, or even 30 pounds.

We know approximately what will correct the trouble, said Alderman Dixon, and if we had the money we could do it this year, but we haven't.\[33\]

If Trail had the advantage of good engineering advice,

\[32\]From an interview by the Author with L.G. Anderson, Comptroller, City of Trail, June 26, 1958.

sufficient funds, and some good planning, many of these major works problems could be avoided.

6. ECONOMIC BASE ANALYSIS

An analysis of the economic base of the Rossland-Trail Region will be undertaken to demonstrate a fundamental problem in this Region. This is the problem of having the basic industry of a region located in one community, in this case the District Municipality of Tadanac. The problems of obtaining tax revenues from residential property alone in the other dormitory communities was described in Part 4-C of this Chapter, under Sources of Municipal Revenue, on page 70. For the purpose of this Thesis only one dormitory community will be examined in the Region. The results of the analysis of one community will indicate what would likely result from an analysis of each of the dormitory communities in the Region.

A. Criteria for Economic Base Analysis

As a sample study the economic base of the City of Rossland will be examined. Many of the recent economic base studies distinguish between basic and service industries. The basic industries, as described by Homer Hoyt and R.B. Andrews, are those that bring money into a community

\[^{34}\text{Economic Base Studies by these writers are listed in the Bibliography.}\]
through the sale of goods and services beyond the legal confines of the community. Some residential communities like West Vancouver or Rossland, export labor.\textsuperscript{35} The service industries, on the other hand, were those that served only the local inhabitants. In this Thesis, however, it is felt that both basic and service industries generate income and employment in a community to its benefit. Within the minor metropolitan area some communities perform either a service function, a basic industry function, or a dormitory function. Of primary importance to the communities is in which community the various activities are located. The tax revenues derived from basic and service activities are far more than those derived from just residential activities. In general, a community with basic industry and commerce is more prosperous than one that has only residential property. However, the role of each community, whether industrial, commercial, or residential, benefits the region but the actual location of each activity determines the degree of individual benefit to each community. A survey of the location of activities in our sample study of Rossland was therefore undertaken by the following criteria:

1. Criteria of the Primary Economic Base.
   a. All businesses which are located within the

\textsuperscript{35}Oberlander, H. Peter, and Ira M. Robinson, Living and Working in West Vancouver, Municipal Hall, 1954.
b. As an index of economic base measurement the total number of employees in each business was noted.

c. As a second index of economic base measurement the total payrolls generated by each local business was also noted.


All business activities that are located outside Rossland City limits but are so oriented to the City that the employees live in Rossland or do the majority of their purchasing, banking, and so on inside the City were considered to be a part of the secondary economic base of Rossland.

The total of these two bases is believed to be a good measure of Rossland's economic base. As explained, all the activities in the metropolitan area benefit the Region as a whole but those particular activities that benefit the individual community are those found in it or depending on it. A measure of these activities by these criteria is believed to be a good assessment of any community's economic base.

B. Measurement of the Economic Base of Rossland

From a field analysis, the primary and secondary economic bases were calculated as shown in Appendix A. The total primary employment of 377 full-time, and 40 part-time workers are all that Rossland, as a community, was independently supporting at the time of the survey. Table III, on
page 53, shows that the balance of Rossland's labor force of 1115 all work with Cominco at Tadanac. Cominco reported that in February, 1958, there were 680 employees from Rossland. From the analysis in December, 1957, 698 workers, or about 2/3 of Rossland's labor force depended on Cominco at Tadanac for work.

The major 'industry' in Rossland, from Appendix A, appears to be the service type. The largest employers of this type were found to be the Department of Public Works, the Hospital, the City, and the School Board. All other 'industries' employed less than ten workers each.

A number of other measures were made of Rossland's economic base. These help to illustrate the residential function of Rossland and the dependence of the City upon Cominco and Trail. A Land-Use Plan of Rossland is shown on page 97 in Drawing 10. The distribution of commercial, residential, agricultural, and forest land is shown. No industrial uses exist. The majority of developed land is used for residential purposes. The commercial activities are restricted primarily to the urban core stretched along Columbia Avenue. A large part of the City is undeveloped. A good percentage of the peripheral land is under agricultural use. From a consideration of land-use, the basic economic function of Rossland is residential. Table XIII, on page 98, shows the distribution of occupations in Rossland and Trail compared to British Columbia. The large number of manufactur-
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

A LAND-USE PLAN OF ROSSLAND CITY

Drawn by E.T. Clegg
### TABLE XIII

**A COMPARISON OF THE DISTRIBUTION IN OCCUPATION**
**OF WORKERS IN ROSSLAND, TRAIL,**
**AND BRITISH COLUMBIA**

| Occupations                  | Distribution of Workers |         |         |         |         |
|------------------------------|-------------------------|---------|---------|---------|---------|---------|
|                              |                         | Rossland | Trail   | British |         |         |
|                              |                         | Total    | Per Cent| Total   | Per Cent| Per Cent|
| Proprietary and Managerial   |                         | 83       | 6       | 288     | 6       | 9        |
| Professional                 |                         | 167      | 11      | 421     | 9       | 8        |
| Clerical                     |                         | 137      | 9       | 495     | 10      | 11       |
| Agriculture                  |                         | 13       | 1       | 22      | 1       | 6        |
| Fishing, hunting, trapping   |                         | 45       | 3       | 5       |         | 7        |
| Mining and Quarrying         |                         | 117      | 2       |         |         |         |
| Manufacturing and Mechanical |                         | 493      | 32      | 1241    | 31      | 15       |
| Electric and Stationary      |                         |          |         |         |         |         |
| Enginemen                    |                         |          |         |         |         |         |
| Construction                 |                         | 139      | 9       | 403     | 8       | 7        |
| Transportation               |                         | 81       | 5       | 69      | 6       | 10       |
| Communication                |                         | 249      |         |         |         |         |
| Commercial                   |                         | 68       | 5       | 21      | 6       | 8        |
| Financial                    |                         | 112      | 7       | 466     | 10      | 12       |
| Service                      |                         | 181      | 12      | 505     | 11      | 7        |
| Labourers\(^a\)              |                         | 59       | 1       |         |         |         |
| Total                        |                         | 1519     | 100%    | 4807    | 100%    | 100%     |

\(^a\) Agriculture, mining, logging, and fishing are excluded.

Source: D.B.S. Canada Census, (Queen's Printer, 1951), et passim.
ing employees (32%) shown for Rossland could be explained by the large number of Cominco employees that live in Rossland. This again demonstrates the residential function of Rossland. Table VI, on page 56, as discussed on page 52, indicates that people in the hinterland communities shop in Trail. It also indicates that such communities, including Rossland, not only lack industry, but also have a small volume of commercial activities. Table III, on page 53, compares the labor force in communities of the Rossland-Trail Region with the number of Cominco employees that each community produces. This illustrates the large per cent of the labor force in these communities that work in Trail. The remaining 39% do not all work in Rossland since many of them work in Trail in the service industries.

C. Conclusions

The economic base analysis, and the other supplementary examinations of Rossland, make it clear that this community has no real amount of basic or secondary industry. Even its tertiary industry is limited. Such an analysis of the other communities in the Rossland-Trail Region would likely show somewhat the same results.

The residential communities of the Rossland-Trail Region lack industry and commerce. They do not derive any direct tax revenues from the Tadanac industry. Still they must bear the cost of providing a high level service for
Cominco employees. This indicates the high degree of Cominco's dependence on outside communities for labor, housing, and schools. The Rossland-Trail Region, as a unit, has a good balance of industry, commerce, and housing. But each separate community is responsible for its own school and housing finances, whereas the industrial base of the whole Region is taxed by Tadanac, or in effect, by Cominco itself for their own use. (Cominco does help finance schools and some other facilities today). Each of these communities is an essential part of the Region but each must fend for itself in local finances. The communities must realize, for their own sake, as Cominco has in obtaining its labor force, that they are a part of one Region. The success of any one community will effect the success of any other community and the Region itself. United, the Region has a balance of industry, housing, and commerce, but surely as individual communities with separate functions and revenues, there is no equitable balance. If each community had a share of the regional tax revenues in accord with the value of its individual contribution to the welfare of the Region as a whole, the problem of Tadanac industry could be corrected to some extent.

The economic base analysis also points out how vulnerable the regional economy is since it is dependent upon just one enterprise. If Cominco should fail there is no other basic industry to carry the Region through a depression. The service industries of the surrounding communities are depen-
dent on the basic employment at Cominco. Without this basic industry or some other type, the service industries would lose their useful function. When the coal mines closed in Fernie, for example, the service industries, such as the local brewery, made plans to move elsewhere. The weakness of the single enterprise economy is that all activity depends directly or indirectly upon one enterprise. The entire economic structure of the Rossland-Trail Region has been built and now rests upon the activities of Cominco.

7. REGIONAL ECONOMY

A. World Markets and Limited Resources

The prosperity of the Rossland-Trail Region depends upon some very changeable factors completely beyond the control of the Region. One of these factors is world markets. World prices for metals and fertilizers determine Cominco's production volume which in turn affects the employment and wages of the Region's inhabitants. Sales of lead and zinc to the United Kingdom claimed 38% of the total Cominco output in 1957. The United States bought 28% and Canada bought 27% of this 1957 total. This distribution of sales

36Ron Thornber, "They'll Mine Tourist Dollars Now," The Vancouver Sun, February 14, 1958, p.3.

illustrates the degree of Cominco's dependence on world markets.

The United States' decision to discontinue their stockpiling policy in May of 1957, resulted in a decline in world lead and zinc prices. Metal producers in the United States sought protection from the dropping prices. The House Ways and Means Committee of the United States Congress considered a proposition by the U.S. Emergency Lead-Zinc Committee to impose higher tariffs, and import quotas on lead-zinc. Such decisions beyond the control of the Region or Cominco have a real affect on the local Region.

At the same time there is keen competition for sales in off-shore markets, both from the United States and European producers. Consequently metal prices have recently declined. The fertilizer sales have also been affected by increasing competition from the United States. This, coupled with an over-production of fertilizer elsewhere in the world, resulted in a deterioration of Cominco fertilizer sales last year. The type of severe competition that is met with in world trade is illustrated by the experience of Aluminium.

In several instances sellers of Russian metal have offered to maintain a differential below whatever price we might quote.... We cannot alone, however, expect to compete against the resources of a state. If this form of competition continues we believe it is apparent that it must be dealt with by those in government who have responsibility for adjusting the trade relations between the two forms of society.38

38Nathanael V. Davis, President of Aluminium Limited,
Cominco operations are based on a volatile resource — ore-bodies. The survey of Ghost Towns in Chapter I, gives ample evidence that great mines can be depleted. It is understood that Cominco has many good mines — but will they always be economically productive?

The effect of all these adverse factors on Cominco operations can be clearly shown in recent events. The Cominco smelter in Tadanac depends primarily upon ore at the Sullivan Mine in Kimberlsy, British Columbia. A number of other mines are operated at Riondel, Salmo, Tulsequah, Pine Point, and Yellowknife.

During 1957, Tulsequah Mines Limited, a subsidiary company, was placed in liquidation, during the course of which all its assets and liabilities were taken over by the Company in satisfaction of the debt owing....

This is the result of adverse markets — another ghost town! Market prices could easily go lower. The great Sullivan Mine is already operating on low grade ore. Perhaps Kimberley and then Trail might close down like Tulsequah today, or Phoenix yesterday. The recent experience in Fernie, Britannia Beach, and even Kitimat indicate that


39The Consolidated, op.cit. n.n., (See Financial).

40R.E. Stavert, President of the Consolidated Mining and Smelting Company of Canada Limited, Address to Shareholders, (Montreal: Annual Meeting, April 24, 1958). n.n., p. 4-5.
single enterprise communities today are still experiencing serious problems. The effects of depression are being felt in Trail today. Table XIV, on page 105, shows the drop in employment in recent years at Cominco. Drawing 11, on page 106, illustrates the fluctuation in employment. Mr. Stavert summarized the economic problems now facing Cominco in grave terms.

... two of our mining operations were shut down. Our inventories of refined lead and zinc have been steadily increasing.... It would be prudent to foresee the possibility that further curtailment in both mining and metallurgical operations may become necessary in the next few months unless the down-trend in the level of business in general, and consumer demand for lead and zinc in particular, is reversed.... Labor costs are still increasing in Canada, particularly in British Columbia.... Unless there is some early recovery from current recession in business, there does not seem to be any reason for optimism in connection with our operations in 1958.41

B. Business and Seasonal Cycles

The history of the Consolidated is marked with the effects of recurring changes in business activity. Drawing 11, also illustrates these fluctuations. The peaks of the diagram mark the periods of prosperity. The low points are depressions. Recovery has, in the long run, far surpassed the recessions with the result that Cominco has grown gradually into a large industrial enterprise. The effects of business cycles are also shown in Table XIV, by the fluctua-

41Stavert, Ibid.
TABLE XIV

THE NUMBER OF COMINCO WORKERS EMPLOYED
AT TRAIL FROM 1931 TO 1957

<table>
<thead>
<tr>
<th>Year</th>
<th>Hourly-Rated</th>
<th>Salaried</th>
<th>Year</th>
<th>Hourly-Rated</th>
<th>Salaried</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>2885</td>
<td></td>
<td>1945</td>
<td>3485</td>
<td>690</td>
</tr>
<tr>
<td>1932</td>
<td>2201</td>
<td></td>
<td>1946</td>
<td>4055</td>
<td>820</td>
</tr>
<tr>
<td>1933</td>
<td>2204</td>
<td></td>
<td>1947</td>
<td>4321</td>
<td>918</td>
</tr>
<tr>
<td>1934</td>
<td>2831</td>
<td></td>
<td>1948</td>
<td>4379</td>
<td>998</td>
</tr>
<tr>
<td>1935</td>
<td>3095</td>
<td></td>
<td>1949</td>
<td>4426</td>
<td>997</td>
</tr>
<tr>
<td>1936</td>
<td>3236</td>
<td>383</td>
<td>1950</td>
<td>4229</td>
<td>1018</td>
</tr>
<tr>
<td>1937</td>
<td>3811</td>
<td>453</td>
<td>1951</td>
<td>4197</td>
<td>1173</td>
</tr>
<tr>
<td>1938</td>
<td>3812</td>
<td>467</td>
<td>1952</td>
<td>4110</td>
<td>1210</td>
</tr>
<tr>
<td>1939</td>
<td>3389</td>
<td>471</td>
<td>1953</td>
<td>3531</td>
<td>1123</td>
</tr>
<tr>
<td>1940</td>
<td>4118</td>
<td>493</td>
<td>1954</td>
<td>3389</td>
<td>1088</td>
</tr>
<tr>
<td>1941</td>
<td>4136</td>
<td>512</td>
<td>1955</td>
<td>3462</td>
<td>1115</td>
</tr>
<tr>
<td>1942</td>
<td>4508</td>
<td>593</td>
<td>1956</td>
<td>3460</td>
<td>1108</td>
</tr>
<tr>
<td>1943</td>
<td>4214</td>
<td>696</td>
<td>1957</td>
<td>3174</td>
<td>1095</td>
</tr>
<tr>
<td>1944</td>
<td>3681</td>
<td>675</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Personal correspondence of the author from the Personnel Department of the Consolidated Mining and Smelting Company of Canada Limited, (Trail B.C. February 1958.)
tions in the number of workers employed.

Employment at Cominco also fluctuates during the year. Seasonal changes are not as severe but they do occur. Generally, summers are periods of high employment and winters are periods of low employment. This is a result of weather conditions which slow down certain activities in the winter months, such as explorations, construction, and maintenance.

The fluctuations of markets for Cominco products and the related fluctuations of prosperity in the Rossland-Trail Region are well illustrated by the value of Cominco stock. Drawing 12, on page 108, shows how the annual stock quotations have fluctuated from 1906 to 1958. The recent downward trend of stock values indicates the serious nature of today's recession for Cominco. This drop in stock values is the greatest in the entire history of Cominco operations.

C. Effects of Market Changes and Cyclical Fluctuations

The seasonal cycles in Cominco operations can leave as many as 500 men unemployed as shown from Table XIV, on page 105, from 1943 to 1944. A business recession can vary employment by as much as 1000 men in a period of four or five years as shown on Table XIV from 1952 to 1957. These changes in employment can have drastic effects on the communities in the Rossland-Trail Region. The surrounding

---

42 Stock quotations were obtained from The Vancouver Stock Exchange and The Royal Trust Company, Vancouver B.C., May, 1958.
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

FLUCTUATIONS OF COMINCO STOCK VALUE

Drawn by E. T. Clegg
dormitory communities cannot readily adjust the size of city, number of homes, and the length of utility lines to meet the changes in local population that result from sudden layoffs. If Cominco, for example, suddenly discontinued permanently the services of 1000 employees who lived in Trail, these people would likely leave Trail to find work elsewhere. The loss in total population could be as much as 3000 people. The City of Trail, however, has geared its commercial development, city services, and utilities to a population that included these 3000 persons. The payments on debentures issued to pay for the original utilities must still be paid. There will be other problems encountered in trying to reduce various city services to the new population level. It is unavoidable that certain fixed costs must be borne by the remaining taxpayers. It is a heavy burden to them. It is a waste to have utilities and services that are not used to their full capacity. This is the opposite effect from that created by sudden population increases discussed under Population Growth and Its Problems on page 63. Recessions, therefore, are a real burden on communities because their tax revenues are reduced but their social services go on or even increase to care for the unemployed. A sudden recovery will often be a hardship for these communities. Housing becomes over-crowded and services become inadequate. The cities react slowly -- but when the demand for housing and services is met in a few years, perhaps by borrowing money, a City
may find that Cominco is in another recession and people are again moving from the community -- leaving the city and the remaining citizens to bear the full cost of the recent expansion. Such fluctuations in employment at the basic industry can have unfavorable economic effects on the communities and people in the Region. These fluctuations can also have severe social effects. The movement of as many as 3000 people can create many social problems. Family and community life are disrupted from such an exodus. Other communities may have a social problem resulting from the influx of the unemployed.

The economic problem of the single enterprise region is that any problem in the business activity of the major enterprise is registered by the entire community of settlements dependent on the enterprise. If, as it was shown in Chapter I, the enterprise fails completely, then ghost towns could result since there is no alternative source of large-scale employment in the Region.

8. POTENTIAL RESOURCES IN THE REGION

Regional development in the Rossland-Trail Area has been very one-sided. The Cominco operation is the only activity that has had any real attention for the past fifty years. All the other potentially valuable resources have received only a superficial examination. Regional develop-
ment is, therefore, unbalanced. Coordinated development of all the resources in ideal proportions could yield far better benefits to the people and the Region than the present system of emphasizing the single enterprise to the point where other resources are ignored.

A. Forest Resources

The Region has a good resource in its forests. The forest cover in this Region is shown on Drawing 13, on page 112. It consists of five types; the Lake Forest (fir, larch, spruce, cedar, and pine species); the Sheep Lake Forest (spruce, cedar, larch, fir, and pine); the South Belt Forest (fir, larch, pine, and cedar); the Mountain Forest (spruce, and balsam); finally, the scrub, fume-damaged, burned, logged and eroded areas.

The toxic fumes from the smelting operations at Trail have destroyed vegetation for several miles up and down the Columbia River Valley. The damage to the leaves of an *acer* and *ulmus* tree species is shown in Photograph 25, on page 43, and is discussed. New growth has been prevented for years by smelter fumes. Coniferous growth has suffered particularly. A detailed survey of the forest cover in this area

---


44 Based on an essay written by the author in 1951, at
FOREST COVER

Mountain (SB)
Lake (FLSCP)
Scrub, Fire-damaged, Burned
Logged
South (FLPC)
Sheep Lake (SCLFP)
Form Woodlot
Management Licence
Regional Boundary
For species name &
Source see Text

A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

By E.T. Clegg
shows that a number of mature stands which have not yet been cut. These stands, if cut on a sustained yield basis, would be sufficient to supply local needs as well as to provide some for export.

The various administrations of the forest cover of this Region at the time of writing are not fully utilizing the resource. The Celgar Management licence extends over part of the Arrow Lakes Forest type, as shown on Drawing 13 on page 112, and farm woodlot licences have been granted as shown. Such forest areas are managed on a sustained yield basis. However, the remaining forest cover is not under good management. A number of companies are practising clear-cutting operations without regard for replanting the cut-over areas. A very large area around the Columbia River Valley is not naturally productive for forest growth. This area has suffered repeatedly from clear-cutting operations, fires, erosion, and smelter smoke damage. It contains many non-commercial species. The soils in this area have been so severely eroded that in many areas only rock and sand remain.

B. Other Resources

The Region has a number of potential mineral resources.

---

45British Columbia, Department of Lands and Forests, Rossland Region Forest Cover, (2 maps), Victoria, 1937.
Mining operations in the Region are almost at a complete standstill. It is claimed that good ore bodies exist here but Cominco owns most of them and has not developed them. The reason has been considered to be that Cominco mines outside the Region are more productive. It is also understood that any exploration work in local mines would cost a great deal.

There are reasons to believe that some good ore bodies exist, particularly in the Rossland area. Early mining removed only the bulk of the ore. Later leasing operations, however, had for many years mined good ore until Cominco stopped such operations. Experience in old mine-workings has shown that hidden ore bodies can sometimes be found.

The agricultural resource in the area has suffered from the toxic fumes of the smelter. The Columbia Valley once had a number of good farms but these had to be abandoned because the smelter smoke destroyed all the crops. Today the smoke is under better control but most of the damage has already been done. The good farm soils were eroded following the removal of vegetation by the deadly smelter fumes. The Region now imports almost all of its farm produce. This is an example of the ill effect on the agricultural resource that resulted from the development of only one resource — Cominco — without due regard to other resources.

This Region has a great potential resource in hydro-electric power. In 1951 Cominco had a greater installed hydro-electric capacity than any other Company in the Province. But there is still ample power to develop. The Waneta Dam project could add 220,000 HP if a use for it could be found. Good dam sites on the Columbia River have been studied by Kaiser Aluminum Company and others. The full power potential in this Region is not being utilized.

The Region also has a resource in its recreation. It has rivers, lakes, and mountains, with excellent sites. Cominco has both helped and retarded the recreation development in the Region. Cominco built the Red Mountain Ski facilities at Rossland. But the influence of Cominco has also held back the progress of these ski facilities. It was largely Cominco money and influence that has dominated the Red Mountain Ski Club who operate the facilities. Their policy has been that the ski facilities are for local use and costs should be held as low as possible by not encouraging expansion. The independent members of the club believe that the ski facilities should be expanded and improved to serve skiers from all parts of the world. From a regional view-

47 Chapman, loc.cit.
48 From an interview by the Author with George Merry, Vice-President of the Red Mountain Ski Club, Rossland, December, 1957.
point it would appear ideal to develop the ski facilities to the maximum for the good of the Region. The Rossland-Trail Golf Club has almost been an exclusive club for the Cominco staff. There has been little system to the park and recreational development. The Region sorely lacks a nearby natural park. The difficulty has been that recreation facilities have been built and promoted by Cominco but as their playground first and only second as a regional resource for the people.

The fluctuations in employment at the Cominco plants loses a great deal of trained labor in times of recession. This labor is often lost. These people migrate to areas of employment. In times of prosperity, new labor must be imported and trained. These fluctuations then, can result in a loss of the Region's labor resource.

9. SOCIAL CHARACTERISTICS

A. Population Analysis

Table XVIII, on page 117, illustrates the age structure of people in Rossland and Trail. It shows a large number of people in the young age groups, 0-44 years, but fewer in the older ones of 45 years and up, as compared to British Columbia. Table XIX, on page 118, illustrates that few retired couples live in Rossland and Trail as compared to
TABLE XV

A CLASSIFICATION OF POPULATION IN ROSSLAND, TRAIL, AND BRITISH COLUMBIA BY FIVE YEAR AGE CLASSES

<table>
<thead>
<tr>
<th>Age Classes</th>
<th>Population</th>
<th>% of Total</th>
<th>Trail</th>
<th>Tadanac</th>
<th>Trail</th>
<th>Tadanac</th>
<th>% of Total</th>
<th>British Columbia</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>684</td>
<td>14</td>
<td>1378</td>
<td>39</td>
<td>1417</td>
<td>12</td>
<td>124,886</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td>525</td>
<td>12</td>
<td>948</td>
<td>37</td>
<td>985</td>
<td>8</td>
<td>99,892</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td>460</td>
<td>10</td>
<td>851</td>
<td>37</td>
<td>888</td>
<td>7</td>
<td>78,609</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>315</td>
<td>7</td>
<td>812</td>
<td>50</td>
<td>862</td>
<td>7</td>
<td>70,230</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>284</td>
<td>6</td>
<td>1032</td>
<td>46</td>
<td>1078</td>
<td>9</td>
<td>79,824</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>739</td>
<td>16</td>
<td>2116</td>
<td>51</td>
<td>2167</td>
<td>18</td>
<td>182,370</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>747</td>
<td>16</td>
<td>1890</td>
<td>79</td>
<td>1969</td>
<td>17</td>
<td>168,819</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>423</td>
<td>9</td>
<td>1253</td>
<td>91</td>
<td>1344</td>
<td>11</td>
<td>124,693</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>213</td>
<td>5</td>
<td>665</td>
<td>32</td>
<td>697</td>
<td>6</td>
<td>108,750</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>65-69</td>
<td>88</td>
<td>2</td>
<td>223</td>
<td>3</td>
<td>226</td>
<td>2</td>
<td>52,929</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>70+</td>
<td>126</td>
<td>3</td>
<td>262</td>
<td>14</td>
<td>276</td>
<td>3</td>
<td>73,210</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4604</td>
<td>100%</td>
<td>11909</td>
<td>100%</td>
<td>1,165,210</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: D.B.S. Canada Census, (Queen's Printer, 1951.) et passim.
TABLE XVI

PERSONS IN THE LABOR FORCE BY HOUSEHOLDS FOR
ROSSLAND, TRAIL, AND BRITISH COLUMBIA

<table>
<thead>
<tr>
<th>Persons in Labor Force</th>
<th>Roosland</th>
<th>% of Total</th>
<th>Trail</th>
<th>% of Total</th>
<th>British Columbia</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-</td>
<td>236</td>
<td>21.2</td>
<td>719</td>
<td>24.3</td>
<td>65,666</td>
<td>22.0</td>
</tr>
<tr>
<td>1</td>
<td>811</td>
<td>72.7</td>
<td>2116</td>
<td>70.2</td>
<td>193,749</td>
<td>64.4</td>
</tr>
<tr>
<td>0</td>
<td>68</td>
<td>6.1</td>
<td>121</td>
<td>5.5</td>
<td>40,430</td>
<td>13.6</td>
</tr>
<tr>
<td>Total</td>
<td>1115</td>
<td>100%</td>
<td>2956</td>
<td>100%</td>
<td>299,845</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: D.B.S. Canada Census, (Queen's Printer, 1951.)
British Columbia, by the low number of households that are listed as having no member in the labor force. Trail has a particularly large number of people in the working age classes -- 25 to 54 years. Rossland has many in the 0 to 19 year groups. The older people apparently do not retire in this District. This is a loss to the Region. Older retired people give a community stability and leadership. Local government would likely be far more effective if more retired people remained in the Region.

The Trail population has a high proportion of transitory types. Table XVII on page 120, illustrates that 54% of the households are tenant-occupied, whereas only 30.5% are tenant-occupied in British Columbia. This feature of a population does not improve it. Transitory groups do not add to the stability of the population. These people are generally not as interested in the community or as useful to it as they could be if they intended to settle in the area permanently.

Table XVIII on page 121, illustrates the distribution of races in Rossland and Trail as compared to British Columbia. The large Italian population in Trail is significant. This is a result of Cominco. A large number of early Italian immigrants were encouraged to come to Trail because they would work under the poor conditions found at the smelter. This group has maintained much of its own original culture. They have their own church. This explains the large
TABLE XVII

A COMPARISON OF THE NUMBER OF TENANT AND OWNER-OCCUPIED HOUSEHOLDS IN ROSSLAND, TRAIL, AND BRITISH COLUMBIA

<table>
<thead>
<tr>
<th>Household Type</th>
<th>Rossland</th>
<th>% of Rossland</th>
<th>Trail</th>
<th>% of Trail</th>
<th>British Columbia</th>
<th>% of British Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenant Occupied</td>
<td>250</td>
<td>20.7</td>
<td>1435</td>
<td>54.4</td>
<td>102,620</td>
<td>30.5</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>954</td>
<td>79.3</td>
<td>1715</td>
<td>45.6</td>
<td>235,160</td>
<td>69.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1204</strong></td>
<td><strong>100%</strong></td>
<td><strong>3150</strong></td>
<td><strong>100%</strong></td>
<td><strong>337,780</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: D.B.S. Canada Census, (Queen's Printer, 1951).
<table>
<thead>
<tr>
<th>Origin</th>
<th>Population Distribution</th>
<th>% of Rossland</th>
<th>% of Trail</th>
<th>% of British Columbia</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Isles</td>
<td>2818</td>
<td>61</td>
<td>6492</td>
<td>57</td>
<td>766,000</td>
</tr>
<tr>
<td>French</td>
<td>141</td>
<td>3</td>
<td>484</td>
<td>4</td>
<td>42,000</td>
</tr>
<tr>
<td>German</td>
<td>157</td>
<td>3</td>
<td>739</td>
<td>7</td>
<td>69,000</td>
</tr>
<tr>
<td>Italian</td>
<td>269</td>
<td>6</td>
<td>1856</td>
<td>16</td>
<td>17,000</td>
</tr>
<tr>
<td>Jewish</td>
<td>16</td>
<td>0</td>
<td>49</td>
<td>0</td>
<td>5,000</td>
</tr>
<tr>
<td>Netherlands</td>
<td>86</td>
<td>2</td>
<td>195</td>
<td>2</td>
<td>33,000</td>
</tr>
<tr>
<td>Polish</td>
<td>43</td>
<td>1</td>
<td>170</td>
<td>1</td>
<td>16,000</td>
</tr>
<tr>
<td>Russian</td>
<td>72</td>
<td>2</td>
<td>192</td>
<td>2</td>
<td>22,000</td>
</tr>
<tr>
<td>Scandinavian</td>
<td>370</td>
<td>8</td>
<td>503</td>
<td>4</td>
<td>72,000</td>
</tr>
<tr>
<td>Ukrainian</td>
<td>53</td>
<td>1</td>
<td>241</td>
<td>2</td>
<td>23,000</td>
</tr>
<tr>
<td>Other European</td>
<td>216</td>
<td>5</td>
<td>105</td>
<td>1</td>
<td>19,000</td>
</tr>
<tr>
<td>Asiatic</td>
<td>7</td>
<td>0</td>
<td>105</td>
<td>1</td>
<td>20,000</td>
</tr>
<tr>
<td>Other and not stated</td>
<td>356</td>
<td>8</td>
<td>404</td>
<td>4</td>
<td>54,000</td>
</tr>
</tbody>
</table>

Total 4604 100% 11,430 100% 1,164,000 100%

Source: Canada Census, (Queen's Printer, 1951); D.B.S.
Catholic population found in Trail by Table XVII, on page 123. This group has its own social activities and associations. Italians have tended to settle together in a "Little Italy" area called the "Gulch". Here they have segregated themselves from the rest of Trail.

Another racial group is found in the Region that does not appear in Table XVII on page 121, because they are rural inhabitants. These people are a strongly segregated group -- the Doukhobors. They are a religious sect who settled in the Castlegar-Slocan areas not far from Trail. The much-publicized Sons of Freedom are the radical order of this sect whose focus of activity is at Krestova. These people have stubbornly held to their religious and cultural beliefs for many years. The women wear their traditional silk gowns and shawls. The men often wear a full beard. They speak their own language, eat their own foods, live together in community compounds, and refuse to be educated by the Canadian system. In protest to efforts to change their way of life they often burn schools and homes, or parade in the nude. Although many have resisted all efforts to 'Canadianize' them, a number of the less radical members are living as normal Canadians. The radical members, however, are a real problem group in the Rossland-Trail Region.

B. Social Stratification

The social hierarchy of Cominco reflects a similar
TABLE XIX
A COMPARISON OF THE DISTRIBUTION OF CHURCH MEMBERSHIP IN THE ROSSLAND-TRAIL AREA

<table>
<thead>
<tr>
<th>Church</th>
<th>Rossland Members</th>
<th>% of Total</th>
<th>Trail-Tadanac Members</th>
<th>% of Total</th>
<th>Rossland-Trail Tadanac Members</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baptist</td>
<td>56</td>
<td>1</td>
<td>210</td>
<td>2</td>
<td>266</td>
<td>2</td>
</tr>
<tr>
<td>Anglican</td>
<td>938</td>
<td>21</td>
<td>2252</td>
<td>19</td>
<td>3190</td>
<td>19</td>
</tr>
<tr>
<td>Greek Orthodox</td>
<td>16</td>
<td>1</td>
<td>56</td>
<td>1</td>
<td>72</td>
<td>1</td>
</tr>
<tr>
<td>Jewish</td>
<td>16</td>
<td>1</td>
<td>50</td>
<td>1</td>
<td>66</td>
<td>1</td>
</tr>
<tr>
<td>Lutheran</td>
<td>183</td>
<td>4</td>
<td>322</td>
<td>2</td>
<td>505</td>
<td>3</td>
</tr>
<tr>
<td>Mennonite</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Presbyterian</td>
<td>137</td>
<td>3</td>
<td>1175</td>
<td>10</td>
<td>1312</td>
<td>8</td>
</tr>
<tr>
<td>Catholic</td>
<td>1072</td>
<td>23</td>
<td>3556</td>
<td>30</td>
<td>4628</td>
<td>28</td>
</tr>
<tr>
<td>Ukrainian Greek</td>
<td>2</td>
<td></td>
<td>57</td>
<td></td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>United Church</td>
<td>1875</td>
<td>41</td>
<td>3593</td>
<td>30</td>
<td>5468</td>
<td>33</td>
</tr>
<tr>
<td>Other</td>
<td>309</td>
<td>7</td>
<td>617</td>
<td>5</td>
<td>926</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4604</td>
<td>100%</td>
<td>11909</td>
<td>100%</td>
<td>16523</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: D.B.S. Canada Census. (Queen's Printer, 1951).
social stratification in the people of the Rossland-Trail Region. This is very evident in many single enterprise economies, because there are no other social hierarchies to diffuse into the community except that of the major enterprise. Your rank in the Cominco structure determines your social position in the community. This stratification is reflected by the housing areas. The highest order of Cominco's social group have, for years, segregated themselves in the company-owned and exclusive residential area of Tadanac. Lower social orders, such as the Italians, made their own housing area in the "Gulch". The imprint of company regimentation is reflected in other ways. The shift system, for example, at Cominco is followed in bus schedules, restaurant hours, activity programmes, and in many other ways.

The social distance between various groups in the Region reduces the interest of the individual in his community. The ordinary worker nurses himself through the work day with the thought that just as soon as he gets a better job or retires, he will leave the smelter and the Region forever. There has been no conscientious effort to hold workers and retired people by the amenities of the Region and communities until very recently. The Region has therefore lost many of its good citizens.

The lack of equality and the lack of feeling an important part of the large enterprise has had other effects.
The people have no regional sentiment. Each community is concerned with its own problems in isolation from the other communities. There is a strong feeling to maintain their own independence. This independence has discouraged one of the most forward steps the Region ever took upon itself. That was the establishment of a Regional Planning Board some years ago. In reply to an inquiry regarding the establishment of a Regional Planning Board for the Rossland-Trail Area, the Deputy Minister of Municipal Affairs replied:

I may say that it was originally hoped that a planning area could be established sometime ago but the proposal fell by the wayside there due to some misunderstandings and a certain amount of opposition. At the same time many people feel an antagonism towards Cominco. This attitude is demonstrated in federal and provincial elections. Candidates from the Cominco staff are rarely very popular. The common unskilled and semi-skilled laborer comprises the largest part of the electorate. Unions are strong in the Trail area and have been more than met half-way by Cominco in disputes.

The many social groups that live in the Region also have a divided loyalty. Cominco staff members feel a strong sense of duty, first to Cominco. The common Cominco worker, however, is more loyal to his unions and various political parties. Certain ethnic groups in the Region are concerned only with their own traditions and culture. Some of the inhabitants place the importance of their own community fore-
most regardless of the fact that it is only part of a Region which must operate as a unit to be successful. The result of this individual loyalty has been the development by the people of an apathetic attitude towards the Region. The allegiance of the people is divided.

One of the strongest elements in any single enterprise community could be the healthy unified attitude of its people. The key to successful regional planning, as well shown in the Tennessee Valley\textsuperscript{50}, is the cooperation of people. Cominco has been unable to arouse any real sense of Regional loyalty from its workers. Seldom do you find an employee who considers himself a part of Cominco, and therefore, a part of the Cominco Region. This lack of feeling a part of Cominco is a serious handicap to overcome in establishing a stable community of settlements in this Region. Without a feeling for, and a consequential interest in, the greater Region, the strongest single resource of the Region remains to be tapped -- the potential of the people themselves.

10. MUNICIPAL GOVERNMENT IN ROSSLAND AND TRAIL

The problems of local government in Rossland differ

\textsuperscript{49} Personal Correspondence of the Author, letter from J.E. Brown, Deputy Minister of Municipal Affairs, Apr. 29, 1958

from those in Trail. Rossland has a strong local government. The citizens of the community as a whole take a real interest in the community. This interest is shown by the many candidates that run for Mayor and aldermen, in the local elections. In Trail the candidates are so few that they are often elected by acclamation. The administrative structure in Rossland, however, is very weak. Table IX, on page 69, shows the low cost of administration in Rossland. One reason for this is the absence of a professional administrator on the City staff.

Rossland City Council was again under fire.... These comments all came back to the question of engineering... suggested that Council take a close look at reducing duplicating of work... and to employing a part-time engineer.51

There is no engineer, accountant, planner, or any other professionally trained employee. No one coordinates activities. Council committees undertake the ordinary work of the administrative departments. Because of the limited term of office for Council members, policy and guidance from such committees lacks continuity. A full-time city administrator with an engineering background is needed to coordinate city activities. But because of the lack of sufficient municipal revenues it appears unlikely that such an administrator will be hired at least for the next few years.

51The Rossland Miner, May 15, 1958, p. 1, "City Council Under Fire From Local Delegation".
The local government of Trail has been, at various times, accused of being corrupt. Some years ago the local police force was disbanded for this reason and the Royal Canadian Mounted Police were brought in because it was felt the old City Police were not doing a good job. Such criticism is continuing. "There is one alderman who declares that the entire supervisory staff should be fired instantly and those who are of value to the City rehired."\(^5\)

The City of Trail was never a true company town. Unlike many single enterprise communities in Canada, it was unnecessary to people in Trail to fight for their independence from Cominco domination in civic affairs. There are two divergent views, one supporting self-government and one supporting company domination in a single enterprise community. The ideal approach is often believed to be that local self-government is desired by the people. The Company would then restrict itself to Company matters. This sentiment was illustrated by the voice of the people recently.

... we do not argue with the Company's importance here, but we do not want to see the Company put itself in the position of an Almighty presence with whom the people's first minister must consort before he sees the people.\(^3\)

\(^5\)Editorial in the Trail Daily Times, June 12, 1958, p.1, "Clean Out City Hall?"

\(^3\)The Kootenay Free Press, (Trail B.C.), September 4, 1952, p.2. (not operating recently).
The second approach is supported by the belief that the City would benefit if Trail was a Company dominated town to begin with. Cominco is the only real power of coordination in this Region. If the community were operated by Cominco, some semblence of orderly development may have resulted. Utilities, roads, and residential growth could have been coordinated under the single power of Cominco. The unnecessary duplication of governments in three municipalities could perhaps have been avoided. Cominco has always been influential enough in local affairs since they were the chief employer in the area. This was particularly true if some Council members were Cominco employees. The influence was always present but the coordinated guidance, financial aid, and authority were not. The result has been that the Trail Area just grew and the problem of coordination is one of the real difficulties that must be overcome here.

11. REGIONAL POWER STRUCTURE

A. The Power Elite

Local governments in the Rossland-Trail Region are ineffective in solving any of the real problems of this single enterprise community of settlements. The important decisions that determine the pattern of development are made far above the rank and order of mere councillors. Once the decision is made, however, it may in some cases, be necessary for
the Council under the will of a power elite to enact their wishes. The men of this power elite can direct the future of the entire Region.

... some men come to occupy positions ... from ... which their decisions mightily affect the everyday worlds of the ordinary environments of ordinary men and women, they are in a position to make decisions having major consequences. 54

The Rossland-Trail Area was examined to see if a power elite did exist there. 55 It was found that certain people did have a strong influence on major decisions. These people were found to be those that command unusual power, wealth, or even local celebrity. They were politicians and influential citizens. A number of Cominco employees were found to have a great influence on some major decisions.

B. The Rule of the Elite

It was found in the study "Why People Live in Rossland" that whatever decisions were finally made in local affairs were strongly influenced by certain Cominco employees. Inevitably the primary allegiance of such decision-makers was to Cominco and not to the community. Whatever is done in the Rossland-Trail Region is done in the shadow of the


55E. Terrence Clegg, "Why People Live in Rossland", An essay written for Dr. S. Jamieson in Sociology 425 at the University of British Columbia), March, 1958. (See Appendix B on page 247).
Consolidated Mining and Smelting Company. At the same time, whatever end this Region might come to, Cominco will have a great influence on the means to that end. If, for example, the satellite communities around Trail are to remain in existence -- many of the residents must be able to work at Cominco. Or if Rossland wished to promote itself as a tourist center then Cominco must release its hold on Red Mountain Ski Club -- the main tourist attraction for Rossland. (Some of these factors are discussed under Potential Resources, on page 110). If Rossland wished to have its mines explored, Cominco must approve since they own the mines. If any of the communities were to invite new industry, Cominco, with its strong influence, land ownership, and hydro-electric monopoly, could very easily make or break a new, small industry. The dominance that Cominco has over certain major decisions that could determine the future of the Area is unquestionable. Cominco is the greatest single power to be reckoned with in any regional planning.

The rule of the elite in this Region has been directed in some ways by members of parliament. The Rossland-Trail Electoral District is represented in the Provincial House of Parliament by R.E. Sommers. Mr. Sommers was first elected in 1952 by the strong Social Credit Party in this Region. The election of Mr. Sommers has been an event which will long be remembered in British Columbia. Mr. Sommers became Minister of Lands and Forests. In this position he did much
to encourage industry into this Region, such as Kaiser Aluminum Company\textsuperscript{56} and Celgar Limited. He was also influential in locating district highways. What good he did has received less publicity than the accusation that he accepted bribes in the allocation of forest management licences. The publicity given to the charge has not reflected favorably on the electorate in his riding. Regardless of what the courts may decide about this charge the fact remains that this Region has had great changes brought about by a single man in a strong position.

12. A LACK OF DIRECTION

A. Haphazard Development

There has been a distinct lack of organized direction to development in the Rossland-Trail Region. This has resulted in a haphazard, expensive, and undesirable pattern of development.

There are many urban problems at the center of the Region's metropolitan area. Trail itself has been divided into three separate municipalities. The administrative problems that occur from such an arrangement are far greater than is warranted by such a small community. One of the

\textsuperscript{56}The Kaiser Aluminum Company proposed to build a low-level power dam at Castlegar in 1955 to generate electricity for an aluminum plant. No further action has been taken.
great problems in metropolitan areas today is the fact that there are too many separate administrative units. These divisions make the coordination of development very difficult. The lack of direction has also resulted in an overcrowded low class of housing in some districts (such as Byers Lane). People have constructed homes on mountain-side lots that are very costly to service. Finally, development has been so spread out and uncoordinated that servicing has been very expensive.

The smelter is located in the center of the Trail metropolitan area. There is no separation of industry from the City proper. Railway tracks cut through the urban center. Poor conditions in Trail have driven people to look for better building sites beyond the City. This could have been avoided if Trail had a system of orderly development. But the short supply of good building lots, the high property taxes, the obnoxious fumes, and the very hot summers, were too much for many of Trail's citizens.

Beyond the urban area, many suburban problems have begun. Unrestricted and unguided strip development grew along the highways leading to Trail. Land was subdivided without any thought of coordination or servicing problems. The low population densities in these outlying areas prevent economic installation of adequate services. The many outlets along the highway impede through traffic. The result has been miles of 30 mph speed limits. The Village of Kinnaird is
a good example of a linear village centered along the Trail-Castlegar Highway.

The almost complete lack of building and subdivision controls has resulted in many suburban slum developments. Rivervale is a subdivision on the very border of Trail City. It advertises the fact that there are no building restrictions in Rivervale to hinder a homeowner. The result has been a real slum area. Birch Grove is another recent subdivision very near to Trail. It has its own water system. People live here even though Health Authorities have condemned the polluted water system. These are problems now that will increase in magnitude as urban development from Trail expands more and more into these areas.

B. Cominco Leadership

Cominco has been the only unifying force in the Rossland-Trail Region during the past 50 years. Its development plans for its industry are perhaps one of the greatest industrial plans ever made in Canada.

The Consolidated Mining and Smelting Company of Canada Limited is not dependent upon any single mine or upon any single mining district; but its interests and business, besides being to an extent industrial, will also be so diversified as to minimize so far as possible the speculative element.57

---

The success of this planning is evident from the success of the Company. Its long range plan of power development is physical planning at a high level.

In its role as the only major enterprise in the Region, Cominco has neglected to exert its influence on urban development. (Nor did it have any legal prerogative to do this). But if Cominco could see the value of industrial planning, surely the value of community and regional planning should have been accepted as a vital part of a successful industrial development. With its power and influence Cominco could have given the Region a real sense of cohesion and Regional leadership. But it did not and to some extent, perhaps could not. The emphasis on the development of one enterprise has left many problems facing this Region.

Cominco operates under a distinct handicap. The real decisions are made at its head office in Montreal. It is impossible for people at the head office to understand the local problems or to even be really interested in them. Such remote control operation can never hope to understand local conditions, customs, and the many physical and economic variations in the Region. Much of the capital created by the people and the resources of the Region has been removed.

There is a real need for an authority with administrative powers over the whole Region. There is no existing power, including Cominco, who could perform the broad tasks required. The problem is for Cominco and the people of the
Region to understand the need for such an administration.
The problem of educating the people and Cominco to this need
may be one of the most difficult to overcome in the Region.
CHAPTER III

SOLUTIONS TO PROBLEMS IN THE
ROSSLAND-TRAIL REGION

1. INTRODUCTION

It is often felt that economic changes are due entirely to forces outside the control of a community or a region. These changes are believed to be unpredictable and dictated by unseen forces. It is the purpose of this Chapter to demonstrate that regional planning action can affect the economic fluctuations within a community or a region, as well as add to the region's general prosperity. The need for regional planning is not always recognized until a community or a region is severely struck by an economic depression, but then it is often too late to lessen or stop the general recession. It is therefore more sensible for a community or region to assess and strengthen its vulnerability to economic cycles before it suffers a serious breakdown. Such action will enable the area to fortify itself through careful regional planning guidance so that it can safely ride through most depressions. Where a region depends upon a single enterprise or a single resource, the need for regional planning is particularly critical since there is only one source of income.
The analysis of problems of the single enterprise community of the Rossland-Trail Region indicates that

a) There are some physical, social, and economic problems in the communities which depend upon the Consolidated Mining and Smelting Company of Canada.
b) These communities are entirely dependent directly or indirectly on one industry -- Cominco -- for employment.
c) The full potential of the Regional resources is not being utilized.
d) The communities within the Region are so interrelated that the problems of one cannot be considered in isolation from the other.

An examination of methods of improving the existing conditions in the Rossland-Trail Region will therefore be undertaken at the community and the Regional level.

2. REGIONAL DEVELOPMENT

This Region has a number of idle resources which are not being fully utilized. Development of these resources would diversify the economic structure as well as add considerably to the prosperity of the Region. A number of other assets exist in the Region, which, if fully utilized, would also add to the prosperity of the Region. The location of some of these assets and resources is shown on Drawing 14, on page 139.

A. Utilizing Residential Sites

Potential Residential Land in the Region. There is a shortage of good residential land near the work center at Tadanac. This is due in part to the rugged terrain of the
A REGIONAL PLANNING ANALYSIS OF A SINGLE ENTERPRISE COMMUNITY

RESOURCES OF THE ROSSLAND-TRAIL REGION

Drawn by E.T. Clegg

Drg. No. 14
area, and in part to the undesirable elements associated with the smelting processes such as sulphur dioxide and other noxious fumes, heat, dust, and a barren landscape. The search for good residential sites has resulted in an exodus from Trail as explained in Chapter II, under Haphazard Development on page 132. A community nearby that has good residential sites then has a valuable asset. A number of good residential sites still exist in Rossland, Fruitvale, and on the various river benches above and below Trail. These areas are close to Trail but have not yet been used for various reasons. For example, Rossland has perhaps the choicest residential sites of all. Photograph 26, on page 44, shows a number of large open fields adjacent to the Rossland-Trail Highway. These fields are within a five minute drive of Cominco. This land is gently sloped. There is no smoke. It has good garden soil, and a cool pleasant climate through the ameliorating influence of abundant trees, grass, and mountain breezes. Yet, with these advantages it is still undeveloped. The Rossland City Council has discouraged development here because they believed that the costs of services to the City would be too high.¹

Rossland is a residential community. To add more residential areas, particularly new ones, would not likely cost

¹Statement by Mayor Harold Elmes, personal interview in Rossland, December, 1958. Permission to quote secured.
the City more than it would gain. More residential property would probably improve revenues by expanding the municipal tax base. If compact planned residential development were encouraged on Rossland's choice residential land, the City would likely derive considerably benefit. If the subdivider, for example, was required to pay for the cost of water and sewer lines, and then incorporate this cost into the price of his lots, the City would not likely suffer from any expenditures that would exceed resulting revenues through a residential development.

Revenues and Expenditures from Residential Subdivision.

A number of residential communities operate in British Columbia today without apparent difficulty, such as Oak Bay, Victoria, and West Vancouver. A recent study of the costs of servicing a subdivision as compared to the revenues received was made.

Looking at costs and revenues for each density and at each price range over a period of twenty years, we find that in each case total revenues over the 20-year period will exceed annual operating costs and the initial capital outlay cost.²

This study included the costs of such items as:

a) capital
b) fire engines, equipment, station, and alarm system,
c) street signs,
d) street paving, maintenance, and replacement,

e) sewer, maintenance, and replacement,
f) garbage removal, maintenance, and replacement,
g) machine cleaning, maintenance, and replacement,
h) street lighting, maintenance, and replacement.

The revenues included property taxes and the United States car licence and the liquor fees. These latter charges amounted to only 12% of the property tax. The study also found that revenues per home decreased from a 600 sq. ft. lot upward to a 36000 sq. ft. lot. It was also pointed out that costs of servicing the new subdivision could be very high in cases where:

a subdivision desiring annexation which is so located that city services such as water and sewer cannot be economically extended to the subdivision until land between the subdivision and the present city boundary is annexed.3

There seems to be every reason to indicate that communities could profitably develop their residential resources if they do so following a compact planned development where the subdivider pays for utility extension. Attractive residential development could also encourage the retired people to stay in the Rossland-Trail Region.

B. A Resource in Recreation

The Rossland-Trail Region has one of the largest per capita sales volumes in Canada. The leisure hours of Cominco employees is also increasing. These factors have created a strong local demand for recreational facilities.

3Ibid., p.28.
The City of Rossland has a valuable resource in its winter sports activities. In past years the City was famous for its Winter Carnival and National Ski Competitions. The City itself is located high in the mountains where the snowfall is heavy and lasts late into the Spring. A number of enthusiastic skiers, with the support of Cominco, constructed one of Canada's largest and highest chair lifts on the north slope of Red Mountain. This lift has attracted skiers from the whole northwest and is a real asset to the Rossland-Trail Region. Drawing 14, on page 139, shows the location of the skiing facilities.

The ski facilities could be developed more than they have been. The present ski area is operated by a club. The club does not have a business manager. There is a need for a manager to operate the ski facilities on a profit-making basis. Such a manager would be responsible to the Club in the same way that a City Manager is responsible to the City Council. The present club has no long range development plans, catering service is poor, and operations are uneconomical. An efficient management could make the ski facilities far more attractive and lucrative.

The real ski area in the Rossland Range is found on Grey and Granite Mountains (elevations 7000 feet). The ideal

---

4This is based largely on the experience of the Author who was a member of the Red Mountain Ski Club from the time of its establishment in 1948 to 1958.
ski development would be on these mountains. Plans for a second chair lift in this area could make the Region's ski facilities competitive with the best in North America from the viewpoint of the size and quality of the ski runs. Other activities such as bob-sled runs, ski jumping, and summer camping, horse back riding, and mountain climbing could be developed in this area by the Club to make the activity more valuable to the Region. The value of the winter sports facilities is recognized and is receiving study for further development.

"The Hon. E.C. Westwood, Minister of Parks and Recreation, expressed considerable interest in the Rossland Ski area.... Mr. Westwood agreed to have his department make a thorough survey of the area with a view to assisting with further development."  

A comprehensive park development programme for the Region could increase the value of the recreation resource. Many lakes and streams for bathing, boating, and fishing could be improved. The Hon. E.C. Westwood, Minister of Parks and Recreation, is investigating a number of these areas for further development purposes.

The development of recreation facilities and public
spaces in the Rossland-Trail Region has been without coordina-
tion or plan. The result is an unbalanced and inadequate
park development. There is a need for a comprehensive system
of park development sufficient to serve the population.
These could include:

- playground and play fields,
- parks
  - passing-through parks
  - neighborhood parks
  - picnic and camping parks
- parkways and boulevards
- special recreation areas
  - swimming pools
  - beaches
  - tennis courts
- educational parks
  - botanical gardens
  - arboretum
  - scenic sites

C. Mineral Resources

The Rossland-Trail Region has some mineral deposits
which should be explored and developed if they are found to
be economic. A number of old mineral claims in the Sheep
Lake area were never developed because they were too far
away from available transportation. Since a new highway is
now being constructed near to these claims there appears to
be a good opportunity that they could be put into operation.
Drawing 14, on page 139, shows the location of the new high-
way.

One of the best potential areas for mineral develop-
ment is still the old workings of the Rossland Mining Camp.
A number of these mines have recently been operating. The
Velvet Mine, near Rossland, opened up in 1955. A mill was constructed and operations began that employed sixty men.7 A number of small gold mines, such as the Snowdrop and Midnight Mines, near Rossland work periodically and employ a few men. There is some controversy as to whether the original mine workings on Red Mountain could still produce ore which would warrant development.

Cominco's assessment of Rossland's ore is as follows:

... the state of the Rossland ore bodies is that they are almost depleted. Only a few scattered remnants of low grade ore remain in place. The old waste dumps are virtually valueless. We have no immediate plans for development in the Rossland area and although, as in most old mining camps, there may be the odd chance of finding ore, any such investigation would be highly speculative and cost a great deal of money.8

... it is not uncommon for old mines to become revived by finding new ore bodies at greater depths after apparently being exhausted. This possibility is present in any area, as exploration can never completely test all the chances of finding new ore.9

Some of the oldtimers who worked in the Red Mountain Mines believe there is a chance good ore exists. This is based on good reasons.

I came here May 1, 1898. Started to work at the Giant Mine on the fourth of July.... All the work that was done in the early days was with the hand steel and hammer. Rossland ore was very hard, hard to drill and break.... In my sixty years a lot has happened with modern methods, it is wonderful to see what can be done.10

---

7Personal correspondence of the Author from R.W. Liversidge, Mid-West Copper and Uranium Mines Limited, Vancouver, October 21, 1957.

8Personal correspondence of the Author with W.G. Jewitt, Vice-President in Charge of Mines, Consolidated Mining and
Leasing operations in recent years found good ore.

O.K. Mountain properties again became active, during that period over thirty men were employed in these mines. ... 350 men had found gainful employment in the mines during 1934.... The output for this year was estimated at $1,000,000.... All leases were withdrawn in September from approximately 120 individuals....

These leasing operations produced good ore but Cominco has not issued any such leases since that time. There is no evidence to show that there was any shortage of ore at the time Cominco withdrew the leases.

New exploration methods devised in recent years could be used to explore the whole Region for signs of valuable mineral deposits.

Yet geologists are convinced that vast stores of undiscovered minerals lie in the earth where no probe has ever gone... the presumption is that the same minerals thus exposed at or near the surface in some areas are present in others too, only further down.12

Drawing 15, on page 148, illustrates how new exploration can find new ore deposits. The surrounding soil and vegetation can now be analyzed to show traces of the minerals that lie underneath the surface mantel. Aerial infrared photography can show the presence of certain minerals in the earth's sur-

---

Smelting Company of Canada, Trail, October 17, 1957.

9Personal correspondence of the Author, letter from Dr. C.O. Swanson, Chief Geologist, Consolidated Mining and Smelting Company of Canada, Trail, January 20, 1958.


A REGIONAL PLANNING ANALYSIS
OF A SINGLE ENTERPRISE COMMUNITY

EXPLORATORY DIAMOND DRILLING

HIDDEN ORE BODY

EXHAUSTED ORE BODY

OVER BURDEN

1st Level
2nd Level
3rd Level
MAIN SHAFT
4th Level
5th Level
6th Level

Title of Drg.
EXPLORATION FOR NEW ORE BODIES
By E. T. Clegg

Drg. No.
15
face. Geophysical methods of detecting oil deposits can be used to discover minerals. Geologic mapping can avoid the time consuming drilling of holes and sinking of shafts. These and other new methods are being used today in other areas and they could be used to find a "mother lode" in the old Rossland workings or new discoveries elsewhere in the Region. The Rossland ore bodies would soon be investigated by such methods if the price of gold increased or if other Cominco mines were exhausted.

Mining depends upon a volatile resource. When ore resource is depleted, the mine is closed. Such an operation is almost impossible to perpetuate particularly since economics in mining might make it necessary to remove the ore as fast as possible. However, some thought could perhaps be given to establishing a continuous operation on a regional basis where a number of mines are depended on rather than one such as Cominco operations today. At the same time it may be possible to locate a community based upon a mining industry in a location where it is favored by other resources or potential avenues of development so that when the mine does cease

Billy Esling's Dedication), p.95.

to operate the settlement may well be able to carry on other activities which it has developed. This could not be done in all cases and perhaps only some. If an ore body is large and costs are not affected by the rate of removal, it may be possible to mine a regular quantity of ore each year so that a community can have some continuity even if, eventually, it must lose its basic industry. The problem of making a mining town self-sustaining presents a much more difficult problem than any of the other single resource bases which a community could have as are considered in this Thesis.

D. Agricultural Resource

The Rossland-Trail Region has never had much agricultural activity. The early smelter fumes made it impossible to grow fruit trees, or field crops. All the early farmsteads were soon abandoned because of the smelter smoke. The top soils of good farm land were eroded severely. The result today is that few top soils remain in the main valley system that could support a valuable agricultural crop. The strong competition from American and British Columbia growers make it impossible to ever consider an agricultural industry of any size in this Region.

For local use, however, much of the now undeveloped soils could be used for agricultural purposes. Some of the eroded river benches could be built up with the help of Cominco fertilizer and irrigation to support certain field
crops. Choice agricultural land has been surveyed in the Sheep Lake Area by the Province. Since the new highway will pass through this area a rich agricultural potential will be opened up for development. The location of this land is shown on Drawing 14, on page 139. "There is an opportunity for an increase in vegetable production. Beaver Valley and Pend O'reille Valley offer possibilities for increased agricultural production."\textsuperscript{13}

The type of agriculture that will most likely be successful in the Rossland-Trail Region for local markets are dairying, poultry raising, small cattle ranching, some swine, small sheep herds, fruit and vegetable products. These goods are largely imported now.

E. Forest Resource

Sustained Yield Management. The forests of the Rossland-Trail Region could be used to provide a variety of products. Some of the mature stands could be used to produce lumber. Some of the forest cover could be used to produce pulp-logs. Some of the smaller lumber is suited to pole, tie, and pit prop production. Christmas trees could be grown in some areas. These products could be readily disposed of on the local market and some could be exported to

surrounding regions.

The forest resource in the Region should be managed on a sustained yield basis. Those forest sites which are best suited to the production of a particular good should be managed so that a perpetual yield is ensured. Some of the larger logging operators could be encouraged to obtain management licences. These licences would ensure that the forest resource will be managed on a sustained yield basis. Where a large number of small operators are found the provision of a public working circle would ensure better management of the forest resource.

A tentative management plan for the Sheep Lake Forest Area illustrates the method of sustained yield that would ensure a lasting forest resource. Drawing 17, on page 154, shows the forest cover of the Sheep Lake Area. In this example, mature stands for sawlogs are taken at 150 years of age and over, while mature stands for pulp logs are taken at 50 years and over. For simplicity the rotation age was also taken at 150 years. That is, timber will be grown for 150 years and then harvested. On the basis of existing stands a cutting plan for the area is arranged as shown on Drawing 16, on page 153. Some areas are non-productive (N.P.), and cannot produce forest growth. Some are not satisfactorily restocked (N.S.R.). These latter areas need to be planted.

---

14 British Columbia, Department of Lands and Forests, Rossland Region Forest Cover, Victoria, 1937, (2 maps).
The cutting plan arranges areas of approximately equal timber volume for cutting each year throughout the 150 year rotation. The oldest stands are cut first. This gives the younger stands an opportunity to grow to maturity. The areas which are replanted will be the last areas to be cut. The cutting and planting schedule in Table XX, on page 156, illustrates the continuous system of cutting and regenerating which will achieve a maximum forest yield on a sustained basis. Every year within the 150 year rotation a minimum of 160 acres of mature timber is cut. Each year the forest industry has an approximately equal volume to cut. The forest industry becomes a stable employer, providing annual products to strengthen the Region’s economic base and add to its prosperity.

The development of the wildlife in this area should be coordinated with forest, tourist, and park plans.

Restocking in the Rossland-Trail Region. Much of the area suited to forest cover requires replanting. Proper logging practice will, however, permit satisfactory natural regeneration on forested sites. The need for artificial planting is most pronounced in the Columbia River Valley. Some areas could be planted by hand with some success. Others are so badly eroded that special measures are needed to permit regrowth. Those areas that surround Trail have received the careful attention of Cominco who has replanted the areas
**TABLE XX**

A CUTTING AND PLANTING SCHEDULE FOR A SUSTAINED YIELD MANAGEMENT PLAN OF THE SHEEP LAKE FOREST AREA

<table>
<thead>
<tr>
<th>Block Number</th>
<th>Period to Cut</th>
<th>Species</th>
<th>Total Acreage Cut</th>
<th>Blocks</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1958-1963</td>
<td>S B C</td>
<td>1630</td>
<td>2,4,24</td>
<td>F</td>
</tr>
<tr>
<td>6</td>
<td>1963-1968</td>
<td>S L</td>
<td>1260</td>
<td>5,28</td>
<td>L C</td>
</tr>
<tr>
<td>7,8</td>
<td>1968-1973</td>
<td>S C</td>
<td>1240</td>
<td>27</td>
<td>S</td>
</tr>
<tr>
<td>9, 10</td>
<td>1973-1978</td>
<td>S C H</td>
<td>1770</td>
<td>28,29</td>
<td>S F</td>
</tr>
<tr>
<td>11</td>
<td>1978-1983</td>
<td>F L</td>
<td>1850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1983-1988</td>
<td>F S</td>
<td>1810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1988-1998</td>
<td>P1 C H</td>
<td>4340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1998-2008</td>
<td>P1</td>
<td>5310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>2008-2013</td>
<td>P1</td>
<td>1650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>2013-2018</td>
<td>L</td>
<td>1540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>2018-2023</td>
<td>P1</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>2023-2028</td>
<td>Mxd</td>
<td>1030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>2028-2033</td>
<td>S B</td>
<td>1920</td>
<td></td>
<td>Natural</td>
</tr>
<tr>
<td>20</td>
<td>2033-2043</td>
<td>P1 L</td>
<td>6216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>2043-2053</td>
<td>L D W</td>
<td>4440</td>
<td></td>
<td>Reforestation</td>
</tr>
<tr>
<td>22,23</td>
<td>2053-2058</td>
<td>L C P1</td>
<td>3336</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>2058-2063</td>
<td>F</td>
<td>2730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>2063-2068</td>
<td>W D P</td>
<td>1620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3,4</td>
<td>2068-2078</td>
<td>F</td>
<td>4820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2078-2088</td>
<td>L C</td>
<td>4370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>2088-2098</td>
<td>L C</td>
<td>7150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>2098-2103</td>
<td>S</td>
<td>6110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28,29</td>
<td>2103-2108</td>
<td>S F</td>
<td>4790</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** The cutting rotation for this plan has been set at 150 years. Symbols used refer to the following species: S—spruce, B—balsam, C—cedar, L—larch, W—willow, H—hemlock, Pl—lodgepole pine, P—poplar, F—fir, Mxd—mixed species, and D—alder.

**Source:** From Drawings 16 and 17.
adjacent to their industry for aesthetic reasons and to stabilize the soils there. Cominco has undertaken extensive investigations to obtain specimens of plants that will grow on the sandy hillsides and not be destroyed from the toxic smelter fumes. They found that the fumes were particularly toxic to coniferous species. Some exotic deciduous species were however, found to grow normally under the prevailing conditions at Trail if adequate water and fertilizer were used. Such species were Acer Saccharinum, Robinia Pseudacacia, and Ulmus Americana. The replanting procedure used by Cominco is first to lay a grid work of irrigation pipes which produce a fine spray of water. Fertilizer is then added to the soils and a suitable grass seed is planted. Later trees and shrubs are planted. The effect in time is that of a three layer forest cover. This stabilizes the soil, enhances the landscape, and ameliorates the micro-climate. Much of the area surrounding Trail has been replanted in this way with amazing success.

Today Cominco has good control over the release of its toxic fumes. A system of baghouses reduces the amount of toxic matter allowed to escape to a bare minimum. A number of smoke stations up and down the river give the exact amount of sulphur dioxide in the air at that point. In this way the quantity is not allowed to exceed a safe limit. The serious threat of smoke damage of past years has largely
Celgar Limited. The forest resources of the upper Columbia River attracted the Celgar Company to the area in 1951. A large pulp mill is being built west of Castlegar. They have been granted a forest management licence over a large forest area on the upper Columbia. Celgar’s sawmill is located near Castlegar. This Company is the first real diversification of the Rossland-Trail regional economy since Cominco began its operations some years ago.

The effect of this new industry has been to provide another large independent payroll for the Region. A stable source of employment is also provided since the woods operation is based on sustained yield. The growth of the Castlegar area has accelerated in recent years due to Celgar’s activity. A number of other minor industries could be attracted to the area as a result of Celgar’s location there.

F. Industrial Resources

The Region offers a number of attractive features for industry. The electro-chemical type of industry requires a cheap electric power supply. It is economically not possible to transmit electricity directly for more than 250 miles.

---

Based on information obtained by the Author while working in the Garden Branch of Cominco in 1950, and written as a summer essay in Forestry 498 at the University of British Columbia.
Industry that requires electric power must locate near the power source.\textsuperscript{16} The type of industry that requires abundant power is as follows:

a) The manufacture of aluminum, abrasives, titanium, ferro alloys, and iron powder depend largely on cheap power.
b) The manufacture of calcium carbide depends on cheap power and a local market.
c) The manufacture of elemental phosphorous and electrolytic zinc depend upon cheap power and a second natural resource.
d) The manufacture of electric furnace glass and steel depend on cheap power and a good market.

Such industry could locate in the Rossland-Trail Region provided that other important location factors were not too unfavorable. Type one and two appear particularly well suited. This explains the recent interest of Kaiser Aluminum as noted on page 115.

The influence of abundant cheap power on industrial development, as distinct from its affect on farms and homes, has been limited. It was optimistically predicted that low cost power would attract new factories to the Northwest and contribute to the economic diversity the region so clearly required. Except for one very special type of industry this has not happened.\textsuperscript{17}

The electro-chemical industries do not diversify the economic structure of a region as might normally be expected. Employment in these industries is low in relation to the amount of power consumed. External ownership and policy leadership of


\textsuperscript{17} Ibid
these industries is common. The manufacture of products is rarely finished in the region but is shipped out to market areas. These characteristics of the electro-chemical industry make it less attractive as a diversifying agent than other types. Nevertheless, such industry would still improve the economic structure of the Rossland-Trail Region if it located there.

This Region is also attractive for industry that processes the products already made here, or proposed to be made. Such finished goods industry might gain an advantage by being near the source of its raw material supply. But this must offset the disadvantage of being located away from markets. There are many industries that could use lead, zinc, indium, heavy chemicals, or some pulp products as raw materials.

Certain satellite industries that could supply the major industry with supplies, machinery, special clothing, and equipment for workers, or that utilize by-products could also locate in the Rossland-Trail Region. Finally, consumer industry that serves the local population such as a paper bag plant possibly could be attracted to this Region.

It has often been said that industry attracts more industry. For this reason industry is attracted to metropolitan areas such as the Lower Mainland Area in British

---

19 Opinion expressed by Jack R. Bryan, Research Engineer, Consolidated Mining and Smelting Company of Canada, Trail, December 1957, Permission to quote secured.

18 Cohen Jr., loc. cit.
Columbia. However, certain industry requires large cheap land areas and relative isolation because of certain obnoxious processes. Such industry could not locate near heavily populated areas. The Rossland-Trail Region offers good sites for such industry. These are located on the river benches above and below Trail.

G. A Human Resource

Much of the success of regional development in the Rossland-Trail Region depends upon its unity. The lack of unity was discussed in Chapter II under Social Characteristics on page 116 et seqg. As one work Region there is some sense of unity now. But unity must be within the people. If a development programme could draw in the average man of this Region and make him a part of the Regional development process then the richest resource of this Region would be tapped -- that is its human resource.

The importance of the people to any regional development plan or to a regional economic expansion programme has been well recognized by some great pioneer projects. The Tennessee Valley Authority, for example, has proven the value of the human resource.

From the onset of the Tennessee Valley Authority undertaking, it has been evident to me, as to many others,

that a valley development envisioned in its entirety could become a reality if, and only if, the people of the region did much of the planning, and participated in most of the decisions.21

In order to have the interest and the participation of the people, it is necessary to have local institutions, Cominco, and even individuals, play an active role in the development programme. If the people can feel that they are an important part of the programme, each will offer his efforts to achieve the over-all goals. The combined efforts of all these people could attain almost any objective in regional development. The social barriers of segregation and the Cominco social structure must be overcome to achieve unity.

The people of the Rossland-Trail Region do have a strong loyalty for their own community. If this loyalty could be extended to the Region, a real step toward developing and stabilizing the Region would be accomplished. Of particular interest at this point is the spirit and interest that the people of Rossland have displayed for their community. The history of Rossland was discussed on page 42 of Chapter II. Rossland almost became a ghost town when its mines were closed. Even when employment was found in the Trail smelter the people of Rossland still did not abandon their City to live in Trail, but travelled back and forth

---

each day between Rossland and Trail. The great fires in Rossland would have been enough to drive most people to live elsewhere. But still Rossland citizens would not give up their City. To live in Trail was a defeat that such people could not accept. This stubborn attachment to Rossland is the same stubborn spirit displayed by the early pioneers who founded the City. The spirit of Rossland's people has thus weathered many ordeals. It has kept the community alive even without its mines or another basic industry. The people of Rossland had a sentiment of loyalty for their community that gave it a strength and solidarity that few cities could claim. Whether the action of Rossland people can be justified on economic grounds is not important. But the fact that such a tremendous spirit in the people of one community has existed gives hope that with some direction such a sentiment and loyalty might again be developed and directed to the Region upon which each of these communities now depends. If all the people of the Rossland-Trail Region felt as attached to their Region and were as concerned about it as were Rossland's citizens concerned about their community, then the Rossland-Trail Region would have a strength that could carry it through almost any disaster, and that could achieve almost any regional development goal.
3. ECONOMIC EXPANSION AND DIVERSIFICATION

A. The Theory of Economic Expansion

Basic Concept. A community or a region may expand its economic base by adding new commerce and industry. This increases tax revenues to individual communities and increases income for the entire region. A community or a region can be compared to a trading nation. The sale of goods and services beyond its boundaries as exports creates a dollar inflow. This type of industry was defined by Homer Hoyt.

Basic industries are those which export goods and services beyond the economic confines of the community or market goods and services to persons who come from beyond the City confines. This export or trade outflow gets a dollar inflow from the region, nation, and other nations.22

On the other hand, when purchases of goods and services are made beyond a community's legal boundaries these purchases are imports and a dollar outflow results. The relative prosperity of the community or region can be measured by taking an accounting balance of all such money exchanges.23

A community or a region that introduces new basic industry or commerce can create a multiplier effect on the income of the community or the region. This is the same effect that results from a capital investment in fiscal economics.


The "fiscal policy" in this case is adopted by the region or community rather than a higher level of government. Such an investment in industry or business may increase regional prices and employment. (On the other hand, the region may deflate prices and employment by lowering regional investment).

The multiplier effect can be measured. According to Keynes Theory\textsuperscript{24}, people determine what part of their income they spend. Their spending habits vary and we find communities and regions have a different Marginal Propensity to Consume (that is the ratio of consumption to income). If we know the Marginal Propensity to Consume it is possible to measure the economic effects of investment or expansion by a formula.\textsuperscript{25}

\[
R = \frac{A}{1-r} \quad A = \text{initial investment} \quad r = \text{Marginal Propensity to Consume} \quad R = \text{total increase in income}
\]

example: \[A = \$1,000,000 \quad r = \frac{1}{2} \]

\[
R = \frac{\$1,000,000}{1-\frac{1}{2}} = \$2,000,000
\]

The multiplier effect of the economic base expansion in the


\textsuperscript{25}Lorrie Tarchis, \textit{The Elements of Economics, An Introduction to the Theory of Price and Employment}, (Boston:
above example is the ratio of the initial investment to the total investment \( \frac{\$2M}{\$1M} = 2 \). The effects of this increased economic activity often induces a second capital investment which again induces a consumption goods investment. This may be repeated a number of times. This chain of events can create an accelerator effect whereby the original multiplier could even be doubled.\(^26\)

The principal shown here is that economic base expansion can create effects in a region which are many more times what they appear to be by just a superficial analysis. These effects result from the need for services to provide for the needs of the basic industrial workers. According to Engel's Law people with high incomes spend more on luxuries.\(^27\)

People in the Trail Area have high incomes. (See Table VII, on page 67). In order to provide them with services and luxuries a high ratio of service worker to basic worker is needed. The multiplier effect would therefore be increased in the Rossland-Trail Region. This economic expansion can create employment, increase regional income and prosperity, counteract adverse economic factors, and develop the region.


\(^27\)Sloan and Zurcher, *op. cit.*, p. 110.
Economic Analysis and Expansion. Homer Hoyt examined the economic base of Brockton, Massachusetts. This area was suffering from an economic decline. Hoyt found that basic industries were needed to produce more jobs to revive the area's economy. He recommended expanding the basic industry and adding other new industry. A number of other similar economic base studies have been undertaken for Denver, Philadelphia, New England, New York, Los Angeles, and West Vancouver.

Economic expansion has been found to create both costs and revenues.

The additional municipal revenues generated by a new industry are frequently considered greater than the additional municipal costs. When they are new industry, then it lowers the tax rate. However, for an industrial district of any given size, this tax advantage may vary widely depending on its industries, particularly require-

---


33 Frank Kinder, and P. Neff, Economic Base of the Los Angeles Area, (University of Pennsylvania), pp. 27-49.

34 H. Peter Oberlander, and I.M. Robinson, Living and
ments for sewerage and other facilities, their property valuations, and the local purchases of their employees. Other things being equal, the larger the industrial development, the greater the decrease in community taxes. However, when industrial development is accompanied by residential development, tax rates may either rise or fall, depending on the number of new residents and their incomes, the magnitude of the new industrial and commercial valuations, the levels of municipal services provided, the amount of unused capacity in the existing municipal structure, and other factors.\footnote{35}

The majority of economic base studies concentrate on the benefits that result from economic expansion. Studies in Front Royal Virginia, and Edmore Michigan\footnote{36}, point out certain problems resulting from industrial expansion on small towns. A summary of these effects is as follows:

a) new jobs are created  
b) per capita income increases  
c) municipal income increases  
d) municipal expenditures increase more rapidly than in the early stages of industrialization  
e) municipal debt increases to provide public facilities  
f) some new businesses and retail outlets will be attracted  
g) rents and land values will increase  
h) plant construction will result in importing construction workers that will compete with local workers and occupy local living quarters temporarily  
i) speculative rises in real estate costs will disperse workers to suburban areas. The community thus loses much of the benefits of expansion. The automobile enables a far larger area to benefit from the new

---


industry.
j) wages will increase

All these effects will not necessarily occur in the Rossland-Trail Region following expansion but they do serve as an indication of the kind of effects economic expansion can bring about.

The new Municipal Act provides the legal machinery that will enable a council or a regional planning staff to initiate an economic expansion programme. Section 462 of that Act enables council to buy or lease property for municipal purposes. Section 463 enables the municipality to use municipal land for residential, commercial, or industrial purposes. Section 465 gives council power to reserve land. Section 475 empowers council to lease property for twenty years. Part XXI is of value as a whole, but particularly division three which treats zoning. Under this Act a community may obtain land for industry and even construct buildings to rent to industry. Such development could be in an industrial zone or an industrial estate.

When a region expands its economic base it should attempt to obtain a balance of employment and industry. A recent United States census of urban areas produced the follow-

As a general guide this balance of employment could be used by a region as an objective for economic expansion.

The basic motive of industry and business in locating new plants and outlets is to increase their profit or reduce their cost. The type of industry sought in a programme of expansion must, therefore, be of a kind which can locate with advantage in the particular area selected. In this regard the Cincinatti Planning Commission suggests a system of selective expansion.

... the whole group of industries can be characterized by a high degree of stability and resistance to adverse business fluctuations, provided the industries are diversified, functionally interdependent, and financially independent...... what industries have real economic opportunities in view of the labor supply and other factors...... The second step is to seek out diligently such industries and persuade them of the opportunities that exist...... without promiscuous subsidization and the offering of special favors to new industries...... The Corporation......

from time to time has acquired or built factory buildings and assembled promising industrial acreages through purchase or options to buy.... The citizens have shown an aggressive and enterprising spirit ... and are willing to back their judgement with time and privately owned capital.... such selective expansion should keynote the objective....39

It should also be borne in mind that new industry wants to know facts. Adequate data should be prepared on the opportunities of the Rossland-Trail Region. These should be published and circulated. Trade magazines and business papers could be used for advertising.

B. The Theory of Diversification

A community is particularly vulnerable to stagnation and depression if it is dependent upon one product or one industry for its support .... Even major cities that once boasted of being centers ... are diversifying.... This is particularly important when the predominant industry is tied in with national defence or with a diminishing natural resource.40

In most communities and regions it is advisable to diversify their economic base by adding different kinds of industry. In this way, while one industry suffers a recession for some reason, another different industry may enjoy prosperity. The community or region is in a better position to withstand the economic fluctuations if its economic structure is composed of a number of relatively independent and stable industries.

A sound diversification policy should select industry

39 The Economy of the Cincinatti Metropolitan Area, City Planning Commission of Cincinatti, December, 1946.
40 R.B. Garrabrant, op. cit., p. 3-4.
which will benefit the community and the region. Criteria to use in this selection could be the following:\(^41\):

a) Select industry that is not vulnerable to the same type of economic changes,
b) Select industries that have good growth potential,
c) Select industry that is efficient and productive,
d) Obtain stable industry that can withstand cyclical and seasonal fluctuations in the economy. Those which rise high in prosperity and fall low in recession are unstable, an index of economic activity can be used to measure the stability of an industry. From sales data, a base year of 100 can be selected and graphed over as many years as data are available. The fluctuations shown indicate the stability of that industry. (Note the fluctuations in Tables XI and XII, on pages 80, and 84.)
e) Select a good balance between durable goods (lumber, iron, automobiles, etc.), and non-durable goods (textiles, food products, chemicals, coals, rubber goods, etc.),
f) Select industries of different sizes. This prevents domination by a few large industrialists. An ideal size selection has small, medium, and large industries.

By the above criteria of selection the following kinds of industry appear ideal:\(^42\): electrical machinery; light electrical equipment; radios and television; plastics; iron and steel fabrication; light metal fabrication; professional and scientific instruments; chemicals; printing and publishing; frozen goods; liquor; biscuits and baked goods.

\(^{41}\) A summary of the more important criteria discussed in various studies of economic base expansion as described in the Bibliography and footnotes of this Thesis.

\(^{42}\) Based largely on a list of industry selected by the City Planning Commission of Cincinatti whose criteria were somewhat like that listed on page 172.
C. Economic Expansion and Diversification in the Rossland-Trail Region

Economic expansion in the Rossland-Trail Region can be considered at the community and at the regional level.

Community Economic Expansion and Diversification. The local communities in the Rossland-Trail Region do not have basic industries of their own. Nor is there any reason why each community should have a basic industry. Each small municipality is only a part of one larger work Region. Each community performs its essential function in the Region. As long as the Region has sufficient basic industry it will benefit as a whole. The inequalities in municipal revenues could not be reasonably solved by a basic industrial expansion programme in each community on a scale which would ever hope to make them independent of the Tadanac industries. A large basic industry requires a complex of factors which no one of these communities could provide alone. A measure of the soundness of the present economic structure of the Region today can be taken from its many years of survival.

At the community level, however, minor service industries and commercial activities could successfully locate in the satellite communities to some local advantage. Such small industries could be accommodated by the existing municipal services and vacant land now available in most of these communities. The City of Rossland has good flat land serviced by railways, paved roads, sanitary sewers, and a reasonable
Under the conditions you mention the railroad would not sell property ... but would arrange leases at nominal rental to industries which would develop business. A special freight rate from Rossland to Trail might be negotiated.

These sites could be used for warehouses, by wholesalers, for minor assembly plants, and the like in connection with the Cominco operations. A pump service repair and assembly plant could be located here to service the large number of pumps used by Cominco. The pumps are now shipped out of the Region to distant dealers. The number of pumps used by Cominco would warrant a small branch operation here by a pump company. The City of Rossland has good commercial sites at the center of town. Business enterprises such as a tourist hotel could take advantage of the locational resources in this City.

Trail has small service industries locating to good advantage in that City.

The Trail Chamber of Commerce efforts to line up light industry have been successful with the announcement that United Distributors Incorporated of Spokane will build a branch here to construct Gales Form-Ties.

---


44 J.R. Bryan, loc.cit.

Trail has an industrial zone which contains a number of light service industries. If each community expands its economic base with such activities they could derive considerable benefit.

Seasonal fluctuations in employment at Cominco could probably be reduced by careful adjustment of work schedules. Reducing these layoffs would aid the Region as a whole.

**Regional Economic Expansion and Diversification.** The real weakness of the Rossland-Trail Region is found at the regional level. Only one basic industry exists. The need for diversification at a regional level is critical. This has been realized by Cominco itself for many years. For this reason today it produces a variety of products. Although prices for Cominco lead and zinc are low, the price of fertilizer and heavy chemicals has not fallen appreciably. Today Cominco produces lead, zinc, silver, cadmium, gold, tin, antimony, tungsten, chemical fertilizer (solid and liquid), anhydrous ammonia, oleum, sulphuric acid, and phosphoric acid. But still further diversification is needed.

During 1957, a total of $3.2 million was expended on search and mining exploration, an increase of 33% over the previous year.... ...the planto extend the uses of our products, to obtain more diversification of our product lines, and to employ the hydro-electric power potential in the Trail area. Last year I stated that we were undertaking the design of a pig-iron and steel plant.... An active research programme continued on the production of high purity metals.... In an effort to broaden the applications of metals produced by the Company, we have recently established a fabricated metal products department... on this continent and in the United Kingdom we
are intensifying research endeavors to find new uses and to enlarge the present uses of these metals.46

This diversification is based to a great extent on products linked to one resource -- ore. Diversification must, therefore, go beyond Cominco. Celgar Limited in Castlegar, with their lumbering operation and new pulp mill plant, is a step in this direction. (See page 158) Other possibilities should be investigated.

4. A PLANNING ADMINISTRATION

A. The Need for a Planning Administration

The Rossland-Trail Region as delineated in this Thesis is under the jurisdiction of numerous administrations of varying size and form. These authorities include various provincial, and federal government departments administering agricultural regions, forest districts, mining divisions, Central Mortgage and Housing Corporation Regions, school districts, game areas, park areas, electoral districts, counties, and many other areas. Within these many administrations, local government and Cominco have their respective jurisdictions. None of these alone could promote the needed regional planning. In order to act as a unified Region some agency must try and coordinate administration, in order to implement a plan of economic expansion, diversification, and resource development.

46 Stavert, op. cit., p.3-4.
The lack of control in urban development is well displayed by the haphazard development found in Trail today. (See page 132). The new areas opened up by the Blueberry to Christina Lake Highway, now under construction, need regional control to avoid the mis-use of good farm land, forests, park areas, and wildlife. In order to attract, select, and locate industry to strengthen and diversify the economy of the Region, some agency must act for the Region. This is beyond the power of any of the existing administrations. The ideal administration for the purposes outlined is a regional planning administration. Most of the communities are too small to have their own planning staff since only one even employs a city engineer. A Regional Planning Board and its staff could act in a consulting capacity to each community. Such an administration could control the use of land to the best interests of the Region. It could also encourage industry to locate in the Region. Such an organization would develop a regional plan for the area to guide development. This Regional Planning Board would consist of representatives from each municipality and various provincial departments. The Board would act under the guidance of its professional staff.

B. Regional Planning Today

The Municipal Act provides for the establishment of a regional planning area.

717-1 On petition by the Council of two or more municipalities in a region, the Lieutenant Gover-
nor-in-Council may declare the area including unorganized territory within the region, a planning area and define the boundaries of the area.

718-1 ... to prepare community plans ... and employ such planning engineers ... as may be necessary.47

A Regional Planning Administration organized under these sections is the only authority that can coordinate and undertake the economic expansion, diversification, and resource development that this Region sorely needs.

The provisions of the Municipal Act for Regional Planning lack any real power for planning. Therefore the best solution that can be offered to aid the Rossland-Trail Region is itself weak. It lacks power and comprehensive approach.

720-1 The Board may, by an affirmative vote of two-thirds of all the members thereof, adopt as the official community plan for the planning area, any community plan prepared under section 718-1.48

This section means a community does not have to adopt any planning measures. There is a great need for reform in planning legislation to follow what has been done in Alberta.

95-1 Where, after making such inquiries as he deems sufficient, the Minister is satisfied ...

(b) that it is in the public interest that the Council of a municipality prepare and adopt or enact a general plan development scheme and


48 Ibid, Section 698 p. 479, p. 487.
zoning by-law, of any of them, he may order the Council to conform to, enforce, administer, prepare, adopt, or enact, as the case may be, a general plan, development by-law, interim development by-law, or zoning by-law within such time or times as he may state in his order.

(c) If default is made ... the Minister ... may exercise for the purpose of carrying out the provisions of the order ... the powers conferred upon the Council.49

Such legislation in Alberta gives authority to plan in a region for the good of all people. The comprehensive nature of regional planning is also recognized in Alberta.

14. A Commission may

(a) study the resources and development of the district planning area with a view to preparing a general plan of the area.

(b) advise ...
   (i) in the planning ....
   (ii) on matters affecting planning ....

(c) prepare a general plan, development scheme, and zoning by-law, or any of them....

(d) promote public interest....50

The limitation of regional planning in British Columbia can be illustrated by comparing the two regional planning boards in British Columbia to the nine in Alberta that almost cover the entire Province. The solution to the problems in the Rossland-Trail Region ideally involves changes in Provincial Statutes much like those outlined in the Alberta Town and Rural Planning Act described.

49 The Town and Rural Planning Act, Chapter 337 of the Provincial Statutes of Alberta, (Edmonton: Queen's Printer,
C. Planning Action Required

It has been shown in this Thesis that a planning administration is needed to perform such tasks as strengthening the economic structure of the Rossland-Trail single enterprise community of settlements. In the Rossland-Trail Region, action by the Province, Cominco, and the people is required to do this. Action of these groups to date has not resulted in a planning administration. It was attempted once as discussed under Social Stratification on page 122. There appears to be a need for strong leadership to guide the Province, Cominco, and the people in establishing a regional planning administration. Because the efforts to establish such an administration failed once does not mean that these people do not want, or do not recognize the need for such an organization. In order to find out what the attitude of these groups was, the Author directed an enquiry to a representative of each group which read in part as follows.

In my Thesis study I examined possibilities for planning in the Trail area which may be of interest to you. I believe that planning ... could ideally extend to regional planning as shown on the accompanying map. (See Drawing 5, page 59) Where unorganized area is included the Province may share part of the costs.... The size of staff and cost depends upon the area to be administered. ... I would like to hear your views on this matter at your earliest convenience.51

1957), 6 Eliz. 2, Section 95, p. 4919.

50 Ibid, pp. 4893-94.

51 Letter by the Author to the Province, Cominco and the City of Trail, April, 1958.
In reply to this and other enquiries the following replies were received.

a) From the Province

A regional planning area may be set up on petition of the Councils of two or more municipalities in the region... I may say that it was originally hoped that a planning area could be established... 52

b) From Cominco

Your letter... concerning town and district planning for the Trail area... it is just possible that something might be done. 53

c) From the people

This matter was discussed at length by the Council and it was felt that no action should be taken at this time with regard to the establishment of a planning area until the Urban Renewal Study now being undertaken is completed. We shall be pleased to advise you of further developments. 54

The replies indicated that there was neither strong opposition nor strong support for a regional planning administration. It did appear from the replies, that if some group strongly supported a move to establish a regional planning administration, they could, with some careful negotiations, bring these various groups to terms. The need is for guidance and leadership by a strong and influential group or

---

52 Personal correspondence of the Author, letter from J.E. Brown, Deputy Minister of Municipal Affairs, Victoria, April 29, 1958.

53 Personal correspondence of the Author, a letter from Dr. C.H. Wright, Consolidated Mining and Smelting Company of Canada, Trail, April 17, 1958.

5. IMPROVING MUNICIPAL FINANCES

A number of methods of improving municipal finances in the Rossland-Trail Region will be discussed as a final method of improving conditions in this Region.

A. Increase Tax Rates

An increase in the real property tax is one method of improving the municipal revenues. This solution appears to be particularly reasonable since it has been shown, under Municipal Revenues in Chapter II (see Tables VII and X, on pages 67 and 77), that the increase in local property tax has lagged far behind the great increase in individual income. However, such a solution is subject to some criticism. An increase in property taxes will only tax property owners. It has been previously shown on page 75 that wealth today is made up of many other things in addition to land and improvements. To tax property alone as a source of municipal income is, therefore, inequitable since the burden of taxation rests on the property owners. Such a solution today cannot be justified by any of the accepted canons of taxation.

B. A General Property Tax

Since the real property no longer represents true wealth, it has been proposed by some that municipalities should adopt a general property tax. Such a tax would be
levied on personal property as well as on land and improvements. Such a tax could understandably provide ample revenue for municipalities.

An overwhelming objection to the broad extension of the property tax to include all property was and is administrative. Intangible property such as bonds and life insurance policies, and many types of tangible personal property such as clothing and jewelry, could not be assessed fairly without the honest cooperation of the general public. In assessing such property assessors had to rely chiefly upon written declarations by taxpayers as to the value of their possessions. The results in Canada, as in other countries, were wholesale evasion.55

The general property tax as actually administered is beyond all doubt one of the worst taxes known in the civilized world.56

Such a solution is therefore not acceptable.

C. Introduction of a New Municipal Tax

Because of the inadequacy of the property tax municipalities are looking to additional sources of revenue.

This financial dilemma accounts for the fact that so many cities are turning to new taxes as a means of supplementing traditional sources of revenue. Cigarette taxes, amusement taxes, general sales taxes, even income taxes are being imposed by cities in increasing numbers.57

The heavy costs resulting from the automobile is one of the major expenses local governments are faced with today.

55Dr. Robert Clarke, Property Tax Assessments, page 1, as cited in University of British Columbia Extension Course in Municipal Administration, 3rd year Course, Finance III-1, (Vancouver: Best Co., 1955)


57Barrabrant, loc. cit.
A tax on automobiles, for example, would go a long way in boosting municipal income. The increasing need for a municipal automobile tax is well recognized by authorities.

... Dr. Robert Clark proposed the gas tax as a means of broadening the civic tax base beyond the single main source of property tax.... The levy of one or two cents a gallon would be on a regional basis. It seems contrary to any recognized principle of justice in taxation that owners of passenger cars should put their municipalities to great expense in the construction and maintenance of streets and bridges and yet not pay a cent to their municipalities for this service... provincial gas tax and licence revenues have declined from more than half of provincial and municipal costs of highways, bridges, and streets, to less than 30% in the last six years.58

"Periodically it is proposed that municipalities investigate the possibility of the retail sales tax."59 There is little doubt that new taxes would assist the communities in the Rossland-Trail Region. However, such new taxes are a matter for the Provincial Legislature to enact. The only part the inhabitant or a Planning Staff can play is to agitate for such tax reform.

D. Assistance From Higher Governments

H.C. Goldenberg60 suggested that the problem of municipal revenues could be solved by an adjustment of provincial-municipal relations. He believed certain functions can be

---

58 An address on The Dilemma in Municipal Finance to the Vancouver Chamber of Commerce, February 24, 1958, cited by Ron Thornber, The Vancouver Province, Feb. 25, 1958, p. 29.


60 H.C. Goldenberg, "Municipal Finance and Taxation Pro-
most effectively performed at different levels of government and that various taxes can be collected best at various levels of government. It then remains a matter of adjusting the revenues collected with the functions performed by some equitable system. Some adjustment of present provincial-municipal relations will be required to bring about such an ideal arrangement. It was explained that this solution may bring more provincial aid to municipalities. This trend has been criticized on the grounds that it reduces local autonomy. (See page 82). Goldenberg, however, does not believe it would. "It has been suggested that municipal autonomy would thereby be endangered. This criticism is unrealistic." Goldenberg suggested simply an adjustment of revenues as a solution. But it is doubtful if municipal autonomy would not be weakened by such a solution unless conscientious action to prevent it were undertaken.

The functions should be so allocated that as far as possible the municipalities will be entirely responsible, financially and otherwise, for certain functions and at the same time, as free as possible from provincial control and direction in the sphere for which the municipality is responsible. The provinces should be solely responsible for the financing and administration of certain functions....

---


The allocation of functions and revenues is here again a Provincial matter and the communities can only agitate for aid.

C.C. Wyatt, Victoria City Manager, said provincial and federal governments should pay full tax on crown properties in a municipality and, he said, the Province should take over costs of health, welfare and education. 63 Crown properties in some cities account for a large part of the municipal assessment. Taxing of such property at full mill rates would produce considerable revenue for cities that had a large number of public buildings. Rossland and Trail do not have a large number of government buildings. As to Mr. Wyatt's second suggestion -- if the Province was to take over certain local functions, then local government becomes more and more an artificial body without real power. The Province can aid municipalities best by adjusting the allocations of functions and sources of income available. Provincial control of local government duties is undesirable from a municipal standpoint. It is desirable to have financial and administrative independence in those activities best performed at a community level.

E. A Budgeting Solution

The problem of municipal revenues is not entirely one of obtaining more revenue. Budgeting municipal expenditures can save a municipality as much revenue in some cases as a new tax source could create. Capital expenditures are gener-

63 The Vancouver Province, loc.cit.
ally the major items in municipal financing. The careful planning of these expenditures by capital budgeting may save a community a great deal of revenue by avoiding unnecessary bond interest payment or by just spending where the need is greatest. Providing for capital projects on a priority basis according to need and funds available can prevent heavy borrowings for unnecessary items. A procedure for capital budgeting could be as follows:

a) Listing all proposed projects by a development plan for the next five years on a priority basis,
b) A financial analysis of city revenues and expenditures is needed to estimate what capital expenditures the community can afford to make for the next five years,
c) From a) and b) a capital improvement programme is adopted,
d) Public and council approval is then obtained,
e) Adjustment of the programme and revision from time to time may be undertaken.

F. The Gordon Commission's Recommendations

The Gordon Commission of Canada's Economic Prospect\(^64\) proposed a number of solutions to increase municipal revenues. The Commission believed, for example, that since the property tax to personal income had become less in recent years, municipalities should raise their assessments and mill rates to provide more revenue. The Commission also stated that since municipal debt as a percent of personal income had also become less in recent years, cities should borrow more. The logic of the first argument is not so evident if we remember

---

\(^64\)Royal Commission on Canada's Economic Prospect, loc. cit.
that income itself is taxed. If income taxes were deducted, the previous comparisons would not appear to indicate very much. Such a solution could also be criticized since such a tax would be avoided by people who do not pay property taxes but benefit from municipal services. The second argument of increasing municipal borrowing as a solution can also be criticized since this increases gross expenditures by the addition of annual interest charges. A limited amount of planned borrowing will be necessary in the Rossland-Trail Region, however, to provide needed improvements. But the fundamental lack of municipal revenues will not be improved by over-taxing existing sources or by increased borrowing.

G. Assistance from Industry

The problem created by having all the major industry in the District Municipality of Tadanac needs solving. Cominco could share the property tax revenue levied on its industry with those communities that contribute labor to the industry. This solution could be largely achieved at the local level. The sharing of revenues would probably be most equitable if it were based on the number of Cominco employees, (over some minimum number), that each community provides Cominco. Such a system would be easy for Cominco to administer since they levy taxes on their own industry and have full records of the number of employees provided from surrounding communities. This method would not be too unlike a federal
or provincial per capita grant. This solution is perhaps the best method that could bring immediate relief to municipalities.

Most of the industry may be in one municipality while most of the residential development, which that industry has helped to bring about, is in another. The first municipality may be comparatively well-off, the second may have to struggle to keep up with its responsibilities.

It has been proposed to us that as a solution to this kind of difficulty the taxation of industrial property should be undertaken by provincial governments who would distribute the proceeds amongst municipalities on some accepted basis. 65

Imposition of a levy by provincial authorities for distribution to municipalities is not recommended. 66

H. Joint Action

A Need For Joint Action. The problems of some of the great cities of the world 67 are often associated with the many political and administrative units of which they consist. This is often the result of rapid growth. Gaps between existing communities are filled, but they remain legally separate with their own governments. The technical problems of providing water, sewers, highways, and so on, require a unity

65 Ibid.


of action over a large area which is almost impossible to achieve in such cities since each struggles for its own independence with little regard for the greater problem. These problems have been attacked administratively by ad hoc bodies whose jurisdiction covers a greater area than would one local council. We thus have, for example, appointed water, sewer, and highway boards. But the more separate bodies that are created, the more difficult coordination of them becomes and the more necessary it would be to have one higher tier of elected government officials who administer all the ad hoc functions. The City of Toronto has adopted a system of metropolitan government because such problems became so acute that action of this type was demanded.

The Rossland-Trail area was described as a minor metropolitan area with its associated problems as described in Chapter II on page 60. Trail is divided into four municipalities and has overgrown onto surrounding unorganized land. For a small community this size such fracturing of the urban structure has resulted in a number of serious problems which the great cities of the world have only encountered when they were much older and much larger. The problems of utilities, services, and government were discussed throughout Chapter II. It is very unlikely that many of the problems in the Rossland-Trail Region could be solved effectively without some type of group action.
... the majority of the domestic sewers are connected with independent outfalls discharging raw sewage into the Columbia River. Trail Creek is also used as an outfall by Warfield and Rossland.

Looking to the future it seems self-evident that sooner or later the problems arising from the discharge of raw sewage will have to be tackled. In view of the physical condition, Warfield must work with Trail, but Rossland has a choice. Superficially there appears to be some argument for the construction of a primary sewage treatment plant to care for all three places.

Joint action where practicable is recommended.

Methods of Joint Action. An amalgamation of Rossland, Trail, Warfield, and Tadanac would dissolve these municipalities who would than elect a common council over the entire metropolitan area. This would give a unity of control over urban and suburban development as well as give a broad common tax base including Cominco industry. The heart of the work area would be one city where all their mutual problems could be considered for the good of all.

The City of Trail could extend its boundaries so as to annex all four municipalities as well as some provincial land. This would achieve the same effect as amalgamation except that the resulting city would be Trail. It is doubtful if either amalgamation or annexation would ever be politically feasible because of the strong feeling of independence in these municipalities. If metropolitan problems become serious

68 Bracewell, op. cit., pp. 6-8.
enough as they did in Toronto, such action may be possible.

From an urban view, Trail, Warfield, and Tadanac are really one city separated only by legal boundaries. This area could function far more efficiently if a unit of control were provided by annexation or amalgamation. The problems of the Rossland-Trail metropolitan area could be solved by a type of ad hoc authority. It is doubtful if Cominco would ever agree to such a union since it would expose its industry to the taxes of an independent local government. There appears to be no good reason, however, why Warfield and Trail should not unite.

Each community could maintain its own identity and functions but elect members to a higher metropolitan government who would then administer the metropolitan functions. This method would involve less change than either annexation or amalgamation.

Amalgamation is not recommended, on account of the dissimilarity in the artificial structure of the three municipalities (Trail, Tadanac, and Warfield). Their dissimilarity in requirements, age, and development, the usual basis for metropolitan government, is not present. Until conditions have produced an urgency and have demonstrated the inability of present municipal governments to cope with problems, the attendant expense and duplication which would be inevitable by the superimposing of another government such as a metropolitan authority cannot be justified and should be avoided. 69

Finally, the easiest and perhaps the weakest method

69 Bracewell, loc. cit.
would be to have each community elect a member to a Board which would administer each particular metropolitan problem as it arises. These authorities are, however, only a step toward a more complete solution such as metropolitan government. A metropolitan sewage board, for example, could be set up. Such authorities would do a great deal to solve the problems of this area and thereby improve municipal finances by first providing an efficient metropolitan administration.
CHAPTER IV

A SUMMARY

1. THE PROBLEMS OF THE SINGLE ENTERPRISE COMMUNITY OF SETTLEMENTS

In Canada, and particularly British Columbia, the single enterprise community is very common. These are communities built around the exploitation of a single volatile resource, or communities which just depend upon a single enterprise. History has shown that these communities and their regions suffer a great deal when the single resource has been removed or the single enterprise has failed for various reasons. In fact numerous old towns and cities have entirely disappeared a few years after this depletion or failure. The result has been a large number of ghost towns. A sample survey of the southeastern part of British Columbia was undertaken in this Thesis to show the prevalence of ghost towns. The results of this survey may very well indicate the many ghost communities or dying towns that do exist elsewhere in British Columbia and in Canada as a result of resource depletion or failure of a single enterprise.

Ghost towns in the Grand Forks Area of British Columbia indicated how seriously a region could be affected by the loss of its major enterprise and resource. In 1906, the
"Boundary Mining Region" in the Grand Forks Area was one of the largest mining and smelting communities in the Province. It was reported to have had the largest smelter in the British Empire at that time. The core of the Region was the City of Phoenix where the largest mines were located. Communities grew up around Phoenix; some with smelters, others became transport centers, and others provided power or just good residential sites. When the ore became too low-grade the owners of the mines stopped operation. The result was the collapse of the entire regional economy. The smelters closed and the people left the towns. In a short time the entire City of Phoenix disappeared. Not one person lives in that City today. Phoenix has fallen into ruin. The smelters in surrounding towns were abandoned or removed. The power dams and plants no longer operate. A half dozen communities dependent upon the Phoenix ore have disappeared and are not remembered even in history books.

The Rossland-Trail Region had an origin very much like that of the Boundary Mining Region. The City of Rossland had one of the richest gold mines in the world. The City of Trail grew around a smelter built to refine the Rossland ore. The ore in the Rossland mines was depleted after many years of successful operation. At this time the Region had not yet reached the extent of development that the Boundary Region already had at the time of its collapse. The Rossland-Trail Region, nevertheless, was faced with the threat of becoming
a ghost community. But the owners of the mines and smelter were long-sighted. They recognized the folly of over-dependency on just one mine and they realized the great wastes that would result from closing the smelter as well as the Rossland Mines. These men of the Consolidated Mining and Smelting Company (Cominco) took action. Miners from Rossland found work in the Trail smelter. The smelter brought ore in from distant mines to keep its furnaces operating through this period of great trial. In later years the Company diversified its production by utilizing the byproducts of its smelting operations to produce fertilizers and chemicals. The result today, of this regional planning by a major industry to expand and diversify its economic base, can be seen by the thriving community of settlements that are found there. As a sample study for this Thesis the Rossland-Trail Region has been examined. Although the Region has survived the many trials of past years it is still confronted with somewhat similar perils today. The problems facing this Region are the same as those that have faced other communities in the past and still others today.

A number of towns in the Rossland-Trail Region, however, did not survive. Fort Shepherd is an old abandoned Hudson Bay trading post on the Columbia River. The City of Brooklyn is an old abandoned transport center on the Arrow Lakes. Both have disappeared so that it is almost impossible to recognize where they once were.
The Mining Region of Slocan was very similar to the Boundary Mining Area. Mining towns grew rapidly there and fell into ruin as the mines were gradually exploited. The City of Sandon is a good example of a dead mining city in this area.

The Moyie District illustrates how communities can depend upon a single replaceable resource — the forests. But still, through the poor management of the resource, they destroyed the basis of their economic structure which in turn left the Town of Lumberton, the major community, in ruins today. Sustained yield management could have prevented this.

The Cranbrook District has a large number of old ghost communities. Many settlements began here as a result of early gold rushes, smelting operations, and trading centers. For various reasons these basic industries failed and the communities have all disappeared. Fort Steele is a dying city with only a handful of people remaining. It was once the largest city in the East Kootenay with the only center for law enforcement in the whole interior of British Columbia. The railroads bypassed Fort Steele, the gold rush ended, other communities grew and the need for the law enforcement center in Fort Steele lessened. The result is that Fort Steele has almost disappeared.

The Fernie District is well marked with old coal mining towns that have become ghost towns. Hosmer, Morrissey, Coal Creek, and many others are abandoned cities in a state of
desolation. The City of Corbin, high in the Rocky Mountains surrounded by jagged crags and glaciers, is one of particular interest. No person lives in Corbin today but yet the old abandoned collieries, homes, and buildings still stand between the overgrown and eroded streets.

In British Columbia today communities are still suffering from their over dependence upon one resource or enterprise. Britannia Beach, near Vancouver, was a community based upon a large copper mine. The mine closed and Britannia Beach has almost been abandoned. Kitimat is a new planned city on the north coast of British Columbia. Recent adverse market prices have caused much of the aluminum refining operations to close. Today many people have been forced to move from Kitimat. The City of Fernie, as a further example, was dependent largely upon a coal mine. This mine was closed recently by the owners because of poor market conditions for coal. The result today is that Fernie is fighting to survive. Unless new industries are brought in, Fernie may follow the fate of Corbin. Copper Mountain was a thriving mining community in 1955. Today it is a ghost town. It was a comparatively new city but it was abandoned because there was no longer any source of employment.

The causes of failure and depression of a single enterprise community are many. A single depletable resource may be exhausted. Market prices may drop. Demand trends may change. Various forms of competition, for example, may
also close an industry. Because of these adverse conditions the owners of the major employer may just close down regardless of the ill effects on the community.

These failures and losses of employment lead to real problems. The direct costs that result from the waste of human effort and talent is considerable. Empty homes, buildings, and unused streets, utilities, and industry are an investment worth many thousands of dollars. The cost to the public of paying for social services to the unemployed is also considerable. The loss of these cities and their inhabitants as a source of tax revenue for the province and Canada is also a large loss. In many ways then ghost communities are wasteful and cost the community, the province, and the nation a lot of money.

The problem of the single enterprise community is a real challenge to planning in Canada today. There will be no one perfect solution. Any answer must consider social, economic, and physical aspects of life within these communities and their hinterlands. It requires the cooperation of people, companies, and government. This is a problem that can best be studied and perhaps solved by regional planning.

2. A SURVEY OF THE PROBLEMS IN THE ROSSLAND-TRAIL REGION

A. Rossland-Trail Area

A planning survey and analysis of the Rossland-Trail
Region was undertaken to determine what problems now faced this single enterprise community of settlements.

Rossland is a small residential community of 4,344 persons neatly laid out in a compact grid-pattern in a setting of wooded mountains where once a number of rich gold mines operated. Trail is a somewhat larger industrial city of 11,395 persons located only two miles from Rossland. Urban development in Trail is broken up by gullies, into separate benches and by the Columbia River itself. The hills surrounding Trail are relatively barren. The City itself is divided into the District Municipality of Tadanac, where all the smelting plants are located, the Village of Warfield, and the City of Trail.

B. The Rossland-Trail Regional Delimitation and Settlement Pattern

In order to limit the survey to some clearly defined area, a delimitation of the Rossland-Trail Regional boundaries was undertaken. The limit of the Region was determined by the extent of the Trail Core area's influence as measured by the degree of economic, social, and physical orientation of the surrounding settlements toward the Core. The number of Cominco workers who travel regularly to the Tadanac plants in the Trail Core Area is one of the chief factors of economic orientation which can be used to delimit regional boundaries. The movements of people of the Region towards the Core for various services also indicates a regional influence of the
Central Core. Finally, there were a number of physical factors which confined these activities into a natural geographic region.

The Core of the Region includes Trail City, the Village of Warfield, the District Municipality of Tadanac, and the City of Rossland. These municipalities are very interdependent. Orientation within this area toward Trail and Tadanac is very much more intense than it is further beyond the Core. These municipalities together with some unincorporated land are a minor metropolitan area.

The pattern of settlement in this Region can be described in systems. The three systems of Rossland, Trail and Castlegar have numerous satellite communities oriented around each central core area or nucleus. These systems together are oriented to the major regional nucleus of Trail and Tadanac.

C. Municipal Revenues

The growth of the communities of Rossland and Trail has created many problems. As mining and smelting settlements, the Region experienced large rapid fluctuations in population. This has lead to a poor quality of development. Rossland has suffered from a series of devasting town fires. Trail suffers from its unfavourable topographic setting which has produced a broken pattern of development. These factors have created a great backlog of needs in the Area.
The average worker in the Rossland-Trail Region earns the highest average per capita income in Canada. The result is that the people demand a high level of local services from their respective municipal administrations. The municipal incomes of these various settlements in the Region are, on the other hand, far less than what would be expected in an industrial area of this size elsewhere in Canada. This has been caused by the location of the major industry, Cominco, in the District Municipality of Tadanac, which is administered by Cominco. These large industrial plants yield a large property tax income for Tadanac, but Tadanac houses only 325 persons. The remaining population of the Region who work at Cominco are housed in the various satellite communities which have only residential and some limited commercial property upon which to levy taxes. Thus these residential communities are hard-pressed to provide schools, utilities, and services for Cominco workers since, among other things, they do not share the regional property tax income. This shortage of funds, coupled with the strong demand for services exerted by the Cominco worker and a great backlog of needs, has resulted in producing a real hardship for these municipalities.

The property tax as a source of revenue is inadequate today. These taxes have increased in this area more than elsewhere in British Columbia. Still the municipalities are very dependent on other sources of income such as grants. This dependency has reduced local autonomy.
D. Municipal Finances in Rossland and Trail

Neither the cities of Rossland nor Trail have been bankrupt. They have had financial deficits in some years however. The bonded indebtedness of Trail is also considerable. Rossland has a very high mill rate when compared to other communities of its size in British Columbia. Trail has the highest mill rate in British Columbia. Warfield has had all its major utilities provided by Cominco before its incorporation. Now on its limited tax resources it may be unable to finance needed major works programmes in the future.

E. Utilities and Services

Rossland has wooden flumes, steep unpaved streets, no sidewalks, poor street lighting, and a serious problem with its heavy snowfalls each winter. Waste disposal is by way of Trail Creek which runs through Warfield and Trail in a polluted state. City garbage disposal is unsanitary and unsightly. Water sources of Rossland and other communities is open to pollution. Trail suffers from the floods of sand from the surrounding steep hillsides and from Spring floods of the Columbia River. The broken topography of Trail has made servicing expensive and settlement awkward. The water supply is inadequate.

F. Economic Base Analysis

An analysis of the economic base of the Rossland-Trail Region illustrated the effect of having the basic industry
in Tadanac. Of critical importance in this analysis was the location and orientation of various activities that employed people. If an activity was located in a city or oriented to it, it was believed that this city derived benefit from the tax revenues resulting from the business and residential property created and the increased commercial activities that have resulted. On this basis the primary economic base consisted of activities located inside a city while the secondary economic base consisted of activities oriented to the City. A survey of Rossland's economic base showed the number and income of workers that depended upon Rossland and were independent of Tadanac. A land-use analysis showed the lack of basic industrial land in Rossland. An examination of occupations, retail stores, and labor force showed again the dependence upon Trail and Tadanac. The analysis showed that Rossland, like other residential communities of the Region, has no basic industry (except Celgar in Castlegar). As a Region there is, however, a balance of industrial, residential, and commercial land. But as separate communities there is an imbalance of these uses. Revenues should be shared regionally in the same way that all activities in the Region are inter-related and inter-dependent. This analysis showed the vulnerability of the Region because almost all activity depends in some way upon the single enterprise of Cominco.

G. Regional Economy

The prosperity of this Region depends upon world mar-
kets and a limited resource. The competitive nature of world markets makes the prosperity of the Rossland-Trail Region fluctuate with the changing conditions of this market. These factors cannot be controlled.

The industry still depends upon depletable ore bodies. If these resources are ever exhausted the Rossland-Trail Region will suffer severely or may even collapse as did many other such regions in past years. Cominco is today suffering from a recession. Some of its mining towns have already been abandoned.

The history of Cominco is marked by the effects of recurring changes in business activity. These changes have affected employment. Cominco stock valuations have also fluctuated. This year Cominco stock has dropped lower in value than ever before in its history.

The fluctuations in population are difficult to adjust to by the community. Periods of prosperity have made conditions overcrowded. Periods of recessions have left houses vacant and utilities unused. Since there is no alternative employment, workers whose services are discontinued by Cominco, generally leave the Region.

H. Potential Resources in the Region

The Rossland-Trail Region has a number of resources which could be developed to widen and diversify the economic base of the Region. The forest resource should be managed
on a sustained yield basis to supply the local market and perhaps some export market. The area has a potential mineral resource in some of the old mining areas. These could be explored and perhaps developed if Cominco would permit it. Agriculture in this Region is very limited. There is a great hydro-electric potential in the Region. Recreation could become one of the Region's richest resources. The Region also has a good labor resource.

I. Social Characteristics

A population analysis of Rossland and Trail revealed some interesting characteristics. Trail has a large number of people in the working-age class. Many are transients. Rossland has many young children and families. Both cities do not have many retired persons. The Region has a large Italian population who live as a group in the "Gulch". A large doukhabor population lives in the rural districts of the Region. The radical order of this group is a real problem in this Region.

The hierarchy of Cominco impresses itself upon the social structure of the Region. A worker's rank at Cominco is also his social rank in the community. The working class of the Region are concerned largely with their unions and political parties. Cominco staff employees as a social group are loyal first, to Cominco. The residents of various communities are more concerned with their own individual communi-
ties and not the Region or Cominco. Racial interests further divide the society. This social stratification in the Region makes unified action of these people difficult to achieve. The greatest resource of this Region could be its people if their energies could be collectively tapped.

J. Municipal Government in Rossland and Trail

Rossland has a strong local government but a weak local administration. Trail's local government is weaker and its City staff has been criticized for its inefficiency. Trail has never been a company town but there has always been the strong influence of Cominco. This has had some poor and some good effects on the Region's development.

K. Regional Power Structure

The important decisions that determine development in the Rossland-Trail Region are not made by governments alone but rather by a group which can be described as a "power elite". These people, because of some unusual powers that they possess, can make decisions that may have a great affect upon the Region. Cominco employees are particularly prominent among this group. Whatever is done in the Region is done in the shadow of Cominco. R.E. Sommers, Member of Parliament, has had a great affect recently on local development.

L. A Lack of Direction

There has been a distinct lack of organized direction
to development in the Rossland-Trail Region. This has resulted in a haphazard, expensive, and undesirable pattern of development. The many separate municipalities are an administrative problem. Crowded, unhealthy conditions in Trail have forced people to move to the suburbs. Uncontrolled development has resulted in a suburban sprawl, ribbon development, and poorly serviced residential areas.

Cominco has been the only unifying force in the Region. The industrial plan of Cominco has been long-sighted and sound. It is unfortunate that this good leadership could not in some way have extended to the development and planning of surrounding communities. However, Cominco is operated from Montreal. Moreover it had no legal authority to direct municipal activities. The result is that no one administration has existed or does exist today to give leadership and guidance to development and growth in the Region as a whole.

3. SOLUTIONS TO THE PROBLEMS OF THE ROSSLAND-TRAIL REGION

A. Introduction

Regional planning action can reduce to some extent the economic fluctuations within a community or a region as well as add to its prosperity. A community or a region should fortify itself against the ill effects of economic fluctuations. When a region depends upon a single resource or enterprise, the need for regional planning becomes very necessary.
The analysis of problems in the Rossland-Trail Region have shown that a number of physical, social, and economic problems do exist. Almost all activity there depends upon Cominco. Many of the Region's resources are undeveloped. The communities there are so inter-related that they must be considered together as a Region.

B. Regional Development

There is a shortage of good residential land near the work center at Tadanac. Rossland and some of the other communities have good residential sites which have not been used for various reasons. The addition of residential property to a community can be profitable if a planned compact development is encouraged.

The Rossland-Trail Region has a valuable resource in its recreation potential. The winter sports activities of Rossland appear particularly attractive for further development. These ski activities could be expanded and operated more efficiently. The Minister of Parks and Recreation is studying the possibility of a comprehensive park development programme in the Region. Such a programme must consider all types of park development.

There are good mineral resources in the Region. A number of small mines have recently been operating. The old Rossland mines are owned by Cominco who has closed them for some twenty years. Cominco experts believe any exploration
in the mines would be highly speculative. Leasing operations in 1934 yielded one million dollars before the mines were closed by Cominco. New exploration methods of today could be used in these mines. It may be possible to plan a mining community so that it can have more stability than mining towns have had in the past. Early farms along the Columbia River were destroyed by smelter fumes. The soils were eroded and the farms were abandoned. Some good farm soils still do exist however, in the Region. There is a good market for certain farm products in the Region itself.

The forest resources of the area should be operated on a sustained yield basis for the local and export markets. An example of good forest management for one area was outlined. Much of the fume-damaged forest areas needed replanting. Cominco has planted special resistant species on the badly eroded soils near its plants. Celgar Development has obtained a forest management licence which covers part of the Region's forests. They have a large sawmill in Castlegar and have also begun to build a large pulp mill. This is the first industry that has diversified and strengthened the economic base of the Region.

The Region has a number of power dams which have an excess of electric power potential. Many good dam sites also exist. Industry such as the electro-chemical types could locate in the area with good advantage. There are opportunities for finished goods industry as well as satellite and
consumers goods industries. There are good industrial sites on the large river benches above and below Trail.

Much of the success of this Region depends upon the unity of the people. If the people of the Region could develop a regional sentiment like their pioneering forefathers, the Region would be able to achieve almost any goal in regional development.

C. Economic Expansion and Diversification

A community or a region may expand its economic base by adding new commerce and industry. This increases the community or regional income. A multiplier effect created by investment in an industrial activity can increase income and investment by increasing service industries as a complementary effect. A large number of studies of the economic base have shown the methods and effect of economic base expansion. The effect of new industry on municipal revenues is to improve them.

The new Municipal Act provides the legal machinery that will enable a council to expand its economic base. A selective programme of expansion is desired to obtain industries that are most advantageous to a particular Region.

A region's economic base should be diversified. The Region and its communities are better able to withstand economic fluctuations if their base is diversified since it depends on not just one industry but many. Criteria of selection
should be: select industry that is not vulnerable to similar economic changes; the industry should have good growth potential; it should be efficient and productive; the industry must be stable so as to withstand cyclical and seasonal fluctuations; a balance between durable and non-durable good types of industry should be sought; and the industries should be of various sizes rather than just one. Industries such as electrical machinery, and equipment, radios, television, plastics, iron and steel fabrication, professional and scientific instruments, and chemicals have proven to have most of the above qualities.

The local communities of the Rossland-Trail Region need not expand their economic structure with basic industry. These communities perform a useful function for the greater work region. Small businesses and service types of industry could locate successfully in these communities to their benefit. The cities of Rossland and Trail, for example, have excellent facilities for such expansion.

The real need for expansion and diversification of the economic structure is at the regional level. Today Cominco is the only major industry in the Region aside from Celgar. Its products are diversified and it is encouraging further diversification. However, for the best stability, new and different industry is needed for the Region.
D. A Planning Administration

There is no single administration in the Rossland-Trail Region that could carry out any effective regional planning as has been suggested. The administrations that do exist are diverse in function and area of jurisdiction. The lack of control is shown by the haphazard development in the area. The ideal administration would be a regional planning board. Planning legislation under the Municipal Act provides for the establishment of such an authority. The Act needs revision, however, to give this authority some power similar to what is provided under the Alberta Town and Rural Planning Act. In the Rossland-Trail Region action by governments, people, and companies, is needed to establish a regional planning authority. An earlier attempt to do so in this Region failed. There is a great need for strong leadership and influence to enable a regional planning authority to become established.

E. Improving Municipal Finances

A number of methods of improving municipal finances which could assist the Region as a whole were discussed. The property tax, for example, could be increased but this places the tax burden on property owners only. A general property tax may yield more revenue but it would be impossible to administer fairly. A number of new municipal taxes such as a car, or gas tax could be an effective aid. An adjustment of
municipal-provincial relations would be helpful to these communities but such reform can only be undertaken by the Province. Crown property could be taxed at a nominal rate. Finally, the Province could accept a larger responsibility for certain social services.

The problem of municipal revenues is not entirely one of obtaining more revenues. Checking expenditures and planning them may also save municipalities a considerable amount of revenue. Communities should adopt a sound system of capital budgeting. Such a budget was discussed.

The Gordon Commission has suggested an increase in taxes and borrowing to aid municipalities. This will not likely improve the fundamental lack of revenue sources for municipalities however.

Industry can assist the Rossland-Trail Region by sharing the industrial property tax revenues in Tadanac on the basis of the number of employees each community provides to Cominco. Cominco does aid the district now in schools and in other social financing. This should be extended to all communities that provide the industry with employees.

There is a real need for joint municipal action on many of the problems in the Region. Water, sewer, highways, and housing could be more efficiently planned for as a unit. Amalgamation or annexation as a method of joint action would be almost impossible to achieve in the Region. Still, Warfield, Trail, Tadanac, and perhaps Rossland are really one
city. The adoption of an ad hoc authority could administer sewer and water problems, for example, on a joint basis. A metropolitan government would give the core area a real unity for action if this were politically possible.
CHAPTER V

SOME GENERAL CONCLUSIONS

FOR APPLICATION

In the analysis of problems in the Rossland-Trail Region and in various proposed solutions a number of factors have been discussed which deserve special consideration. Because of their nature these factors appear to be the kind that can apply generally in the study of single enterprise communities of settlements. For this reason it is believed that these particular factors deserve to be summarized and considered separately. They logically fall into ten main channels of thought. For convenience and clarity each of these ten channels will be discussed as a planning principle.

1. THE PRINCIPLE OF A REGIONAL PLANNING APPROACH

The single enterprise reflects its success or failure upon all aspects of urban and rural living within the region where it is dominant. To fully assess the problems it creates, it is necessary then to examine all the social, physical, and economic aspects of life within that region. In a similar way all the problems of a single enterprise community of settlements cannot be solved by a purely economic approach in isolation from valid social and physical consi-
derations. It is therefore essential to have a comprehensive approach in studying the problem of the single enterprise. Since the survey and the analysis should be comprehensive, it appears likely that the regional planner is best qualified to examine the problem of the single enterprise in order to arrive at solutions which will produce the best results for all the people in a particular community of settlements. Activities and settlements tend to locate where economic conditions are favorable. When economic conditions become unfavorable these activities and settlements are often dis-located. It is believed that regional planning action can alter, to some extent, these unfavorable but very common trends. Such action may therefore prevent drastic economic depressions or complete collapse of a single enterprise if action is taken soon enough. This Thesis has demonstrated what measures regional planning can take to do this.

2. THE PRINCIPLE OF THE PHYSICAL HABITAT

Many of the problems of a single enterprise community of settlements result from the uncoordinated growth of its industry and its residential areas. The industrial growth is often planned but the residential areas are not and just simply grow. A complete community with industrial and residential sites should be designed by a planner in consultation with engineers, architects, economists, and sociologists. If possible, the industrial site could be selected in relation
to an existing settlement for joint planning and joint use of utilities and transportation facilities. Often an existing community can provide a better level of services more economically than an entirely new community could. Industry should therefore consider the advantage of locating near existing communities. A sufficient area should be incorporated in the community to accommodate the future growth anticipated. Sites in low lying flood areas, on steep ground (over 15% slope), or on unstable bases should be avoided.

Photograph 31, on page 219, illustrates what happened to the town of Frank when it was located without sufficient regard for the surrounding physical features of the habitat. A gigantic wedge of limestone buried the town under ninety million tons of rock within 100 seconds in 1903.

Residential sites should be separated from an obnoxious industry by an effective belt of green area. The residential sites should be on the upwind side of industry that emits noxious fumes. Industry should control the emission of fumes so that the least possible annoyance or damage results. In selecting residential areas due considerations should be given to the natural amenities of the site, such as view, insolation, natural park areas, and water bodies. Temporary buildings and utilities should not be constructed on the permanent townsite since they have a habit of becoming permanent. A good standard of construction that follows a reasonable town plan should be established. The industry should assume
the initial responsibility of seeing that town development at least begins on a planned basis since the welfare of their employees at home as well as at work has influence on the successful and efficient operation of the industry.

Photograph 31

THE TOWN OF FRANK

Source: Photograph by the Author in July, 1958.

3. A PRINCIPLE FOR REGIONAL DELIMITATION

"... we may characterize regionalism as tool and technique for various objectives of planning...."¹ The concept of regionalism can be used as a technique in a planning analysis of a single enterprise community to establish the area

influenced by it. Once regional boundaries are located by various criteria it is then possible to analyze the problems within this limited area and to exclude irrelevant areas and problems. The following procedure of regional delimitation may be used. Since the effects of the single enterprise are reflected through the medium of physical, social, and economic changes on the hinterland region, the criteria of delimitation were determined by the degree of these effects caused by specific factors originating at the single enterprise and the central city that contained it. The greatest effect upon the hinterland results from the employment activities of the major enterprise and the central city. Areas where over 50% of the labor force depend upon the major enterprise or central city for employment can be considered as a part of the region dominated by that enterprise. People from the hinterland travel to the central city to shop, to play, to use facilities and to consult professional persons. It may be concluded that these activities locate in the central city to serve the people of the entire region. It can often be assumed that people generally travel to the nearest city that provides the needed goods and services. An approximate regional boundary can be delineated by bisecting the distance between those centers surrounding the central city that offer similar goods and services and then joining these points of bisection. In order to determine the exact location of regional boundaries the topography should be examined. The height
of land nearest to these boundaries that enclose the areas delineated by the other criteria serves very well for this purpose. This natural criteria of delimitation also encloses those physical elements of the area such as the streams of water, land areas, forests, roads, and resources which are more the concern of the people contained in that natural Region than any other. Natural boundaries may be altered by administrative boundaries such as the international boundary since the activities of a single enterprise do not sufficiently influence the area beyond such borders and for most purposes such borders are a limit to normal planning jurisdiction. The exact location of regional boundaries can be determined by a statistical analysis undertaken by field investigation. This analysis would establish the number of trips made to a central city for work, professional, service, recreation, or a major purchase by the majority of people of the various communities. When this number is over 50% then those communities should be included in the Region of that particular central city. The area that is very strongly influenced by a single enterprise may be delineated as the regional core. Here the influence is most intense and over 90% of the trips within this area are made to the central city.

In the process of delimitation it may be found that sub-dominant centers in the hinterland may have systems of settlements oriented upon them. These systems, however, may
be found to be oriented again to the dominant regional center. These sub-dominant centers often have nuclei of minor industry and commerce which attract a system of satellites. Old systems may have large residential nuclei with minor commercial but no industrial activity. Only a few satellite settlements are oriented on an old nucleus. New systems are characterized by new basic industry, commerce, and less residential activity at the nucleus as well as numerous small satellite communities oriented upon it.

4. THE PRINCIPLE OF ECONOMIC DOMINANCE

The economic structure of the single enterprise community is dominated by the major enterprise. This dominance is the most characteristic feature of the single enterprise community. It exhibits itself in various ways. All basic activities are located in one part of the region or community. Beyond this only service activities are found. The dominance of the central enterprise determines a pattern of land use. Industrial and commercial uses are found only at the site of the single enterprise or very close to it. Beyond this only residential or minor commercial uses are found. Dominance is also shown by the many workers who depend directly upon the basic employment at the single enterprise for their livelihood. Other employment also depends indirectly upon this basic payroll. The greatest concentrations of municipal tax:
revenues are also dominated by the single enterprise. But with this dominance comes the major problem of single enterprise communities -- over-dependence upon one activity. If the fortunes of a community are tied to one enterprise then that community will suffer and prosper as the enterprise itself does.

5. THE PRINCIPLE OF A REGIONAL LAND-USE BALANCE

This Thesis has pointed out that within the single enterprise community of settlements a number of imbalances exist such as employment, location of activities, and revenues. From a regional perspective however, these imbalances become balanced. Nature has created land in a variety of forms, each of which has characteristics that are ideally suited to one land-use more than another. Rich soils, for example, in large areas are suited best to agriculture whereas infertile gravels which are well drained and stable are suited to the construction of buildings. Settlement patterns do not follow entirely such ideal natural land uses but rather, tend to be influenced by chance, convenience, nearness to a resource, or some other reason. By considering the natural factors and those created by man, parcels of land still have as a result, characteristics that make them suitable to a particular land-use activity. Very often the uses that exist today in settlements are a result of the interplay of all these various
factors. Thus we have an area best suited to industrial use, another best suited for residential, another for commercial, and still another for park use. Each such land-use performs its own particular functions in the greater region for the good of all and is as important to the successful operation of that region as any of the other land-uses. In a single enterprise region these areas or communities of particular land-use may function together as one larger community of settlements. Thus a residential community, an industrial, a commercial, or a recreationsl community has its particular role in the greater region or community of settlements. Each community should receive a share of the regional income in proportion to the usefulness of its particular function. One method of doing this is to share the industrial tax revenues with all the regional communities by the number of basic workers provided to the basic industry by each community.

6. THE PRINCIPLE OF ECONOMIC EXPANSION AND DIVERSIFICATION IN A REGION

A single enterprise economy has many problems. Very often the sale of the primary export good depends on world markets. The actions of a world market are beyond the control even of the nation itself. World affairs constantly affect the prices of these products and thereby the local regional economy around that enterprise. Competition can be unreasonably keen between nations. A single enterprise that depends
upon a volatile resource is vulnerable to depressions. This is particularly true of a mining community. In times of economic depression for the product of a single enterprise, the entire region dependent upon that enterprise suffers. In times of seasonal depressions the region can also suffer to a lesser degree. These depressions are reflected by employment reductions.

The theory of economic expansion can be applied to overcome this vulnerability. An expanded economic base composed of more than one industry or business can create employment; increase regional income and prosperity; counter adverse economic effects; and develop the region. The good effect of economic base expansion can be multiplied many times depending upon the basic worker to service worker ratio and the people's marginal propensity to consume. The theory of economic diversification can be applied to strengthen the economic structure of a single enterprise community against economic fluctuations. This is done by a selective choice of industry that is not vulnerable to similar economic fluctuations; is a stable type; has a balance of durable and non-durable industry; and has a variety of industrial sizes. The expansion of the economic base of a small community within a region is not feasible. The expansion of certain tertiary functions can be achieved with good effect. The optimum economic expansion and diversification is planned for the
region to benefit all of the region and not just one community. This requires more than an expansion and diversity of mere products. A number of different independent basic industries are required.

7. THE PRINCIPLE OF RESOURCE DEVELOPMENT

A single enterprise economy has its one industry or resource developed at the expense of all other natural resources in the region. Most of the region remains undeveloped. The resources of the region should be developed to their maximum. This should be done in a way that will give a balanced and integrated economic structure. In this way the region becomes more self-sufficient and requires fewer imports. The region may enjoy greater prosperity. The resources of a single enterprise community can be developed so the economic base of the region is expanded and diversified. This will strengthen the economic structure so that the region will be able to withstand any economic fluctuations with very little ill effect. Diversification and expansion of the goods produced by the major industry is not sufficient to stabilize the economy. Resources with a limited potential may be developed for local use while those with considerable potential may be developed for export.

Generally the resources should be developed so a continuous annual yield may be produced. This will ensure the
conservation of resources and at the same time ensure their full utilization. The quantity of yield will vary with the product and the resource potential. The best agricultural practices should be adopted so a suitable crop is grown on a suitable soil without the danger of depleting the fertility of the soils. The forests should be managed on a sustained yield basis. The optimum development would have the net increment of growth on the entire stand equal to the annual cut. The mineral resources should not be exploited all at one time. Methods of stabilizing output should be investigated. Hydro-electric potential should be expanded but only as the demand for power is created. The water resources should also be developed to give flood control, irrigation, and a good domestic supply of water as well as power. Potential industrial, recreational, and residential sites should be developed in accordance with a sound regional master plan. It is important that a single enterprise community of settlements develop all its resources.

Because they sinned against the unity of nature, because they developed some one resource without regard to its relation to every other resource in the life of man, ancient civilizations have fallen into decay and lie buried in oblivion. Everywhere in the world the trail of unbalanced resource development is marked by poverty, where prosperity seemed assured by ugliness and desolation, with towns now dying that once were thriving; by land that once supported gracious living now eroded and bare and over wide areas the chill of death to the ambitions of the enterprising young and to the security of the mature.  

---

2David E. Lilienthal, TVA (Tennessee Valley Authority),
A single enterprise community of settlements generates many social problems. The industry often encourages the immigration of people that will provide a cheap labor supply. These immigrants often live in groups which they segregate themselves from the rest of the community. Each group maintains its own language, beliefs, and customs. The process of assimilation is slow. The position of the employees in the hierarchy of a single enterprise determines his social rank in the community. This stratification can produce antagonisms. The people try to escape from the social regimentation of the single enterprise by living in satellite communities, far removed from the industry. The people express their desire for independence in local community affairs. These communities become very independent in their affairs -- other than employment. Company dominance may also produce an apathy in the local citizenry who have been dominated and guided too long by the major enterprise. Transients may comprise a large part of the population.

The people of such a single enterprise community are thus divided into many groups with many social problems. It is difficult to obtain a regional sentiment or a feeling of

unity in the face of these social obstacles. The type of regional sentiment that is needed is the type of pioneering spirit that founded the first early community in the wilds of this area many years ago. Such a sentiment would give the region strength and solidarity. This is the sentiment which must be nurtured on a regional level. The Tennessee Valley Authority has shown clearly that a regional project can only become a reality if the people have a regional sentiment to participate in, and to help plan the project. The energy, ideas, and support of the citizens is perhaps the strongest resource a region can possess. But the problem is how to harness this potential resource. People can only become unified and attached to a project if it can show to each individual that his ideas and help do have a part and a meaning in the project and that the project will take account of his individual needs. Regional planning should be planning for the people of the region and by the people of the region. There is no administration, other than regional planning, that can perform these tasks. There is no regional government in Canada. Industry rarely does and seldom can undertake regional planning. The local institutions are obsolete. The regional power elite is more concerned with its own needs than those of the region. A regional planning administration is therefore the chief hope of utilizing the human resource.
9. THE PRINCIPLE OF LIMITED JURISDICTION

For many years communities in British Columbia have grown independently and in relative isolation from one another. The municipal institution was originally designed to serve rural and self-sufficient populations. Conditions today in these municipalities have changed. Industrialization and urbanization have produced a great increase in these municipal populations. The great improvements in transportation have put all communities in closer contact with each other as well as their own hinterland regions. The effects of these changes can be noted by the increased problems and needs of the municipalities as well as their increasing inability to cope with the problems and provide for the needs. Some of these needs involve areas beyond the municipality's legal limits. Such needs include water, sewage outfalls, various raw materials, food products, recreational areas, labor supplies, building sites, and many other similar regional matters. But the intra-city area which is to provide these needs is administered by the Province. There is no middle tier of local government over the district despite the large populations that are sometimes found in these unorganized areas. On the other hand the provincial administration in these areas is weak. Long range control from Victoria is not efficient nor is it well acquainted with local district conditions. There are a limited number of Provincial administrators available and they
exercise little control. Planning services by the Province for example, are provided by two planners\(^3\) for about 90% of British Columbia's total land area. The city's hinterland is needed to provide some of the needs of the city. But the city and its hinterland are administered by two very different and perhaps even conflicting systems of administrations that cannot coordinate development efficiently on a district or regional basis. The single-enterprise community is then faced with the additional problem resulting from the limitations in the jurisdiction of the municipal institution, the single enterprise itself, and the Province, in areas beyond the city.

10. THE PRINCIPLE OF A REGIONAL PLANNING ADMINISTRATION

The people of a city no longer confine their activities to just one community, or even two, but they now extend their activities throughout an entire region. Planning for such a people must therefore be for an entire region. The multitudes of problems resulting from urban living indicate a need today for planning to prevent problems rather than just planning to rectify the past mistakes. Planning powers must be extended beyond the urban area to undeveloped areas where

\(^3\)B.C. Division of Community Planning Association of Canada, *Community Planning of B.C.*, Editorial, (Vancouver: June, 1958),. 
planning measures can be established before development begins. This Thesis has pointed constantly to regional planning: as the need of the people; as necessary to stabilize the economy through diversification and expansion of the economic structure; as necessary for resource development; and as necessary to act where local and provincial governments have failed. There is no other administration that is better equipped to undertake such duties than a regional planning organization. The Provincial Statutes have given regional planning boards limited powers in British Columbia. There is no direct power of implementation by the Province. The organization is not conceived of on a comprehensive scale. The Province of Alberta has shown initiative and foresight in providing full regional planning powers -- other Provinces would be wise to amend their statutes along the lines of Alberta while there is still time to plan.

RECAPITULATION

No known industrial activity is entirely free from economic depressions. This Thesis has demonstrated that a community of settlements depending upon just one activity for its basic employment will suffer from the same economic recessions that the activity itself suffers from. However, some activities fluctuate more than others. Some suffer
while others prosper. This Thesis has therefore shown that a basic economic structure built up from many relatively stable selected activities and resources will, on the average, be better able to protect communities that depend upon such a basic economic structure. A serious recession or a failure in any one activity will not therefore cause a similar recession or failure for the entire community. This Thesis has demonstrated that a single enterprise community of settlements should plan its activities to prevent ghost towns from developing as well as lessen the ill effects resulting from economic fluctuations. It has been shown that a regional planning approach is best able to consider and produce solutions to this important and complex problem characteristic of the dependence upon a single enterprise. It was further shown that such an analysis can provide information that is of value to further study on the subject. Finally, the Thesis has indicated that strong leadership of individuals or groups is needed to stir the actions of governments, of the single enterprise, and of the people sufficiently so that a regional planning administration will be established as the first and best step towards an ultimate solution to the problem of the single enterprise community of settlements.
A. BOOKS

The Theory of Metropolitan Dominance is discussed. Dominance is measured by population and functions in a metropolitan area.

A treatise on the appraisal of property with emphasis on the valuation for tax purposes of the general property tax.

A detailed study of form and style in Thesis writing.

The father of the central place theory outlines the basic concepts of centrality in southern Germany.

A discussion of regionalism.

A study of local government in Canada with discussion of problems and solutions.

A discussion of basic factors in industrial location.

An analysis of New England's regional economic base. The import-export balance is applied to the region.

This historical series holds valuable information on early B.C. history.

1953.
A study of community power structure. The survey
technique of this study was applied in Rossland -- "Why
People Live In Rossland", by E.T. Clegg.

Isard, Walter, and Robert E. Coughlin. University of Penn­
sylvania. Municipal Costs and Revenues Resulting From
Part I and II.
A detailed analysis of municipal costs and revenues.

Langford, G.B. Out of the Earth. University of Toronto
A general mining reference for development of the min­
eral resources.

Lilienthal, David E. TVA -- Democracy on the March. New
An outline of the work of the Tennessee Valley Author­
ity in that Area. The important techniques are discussed.

A study on the management of game as a resource.

Losch, August. The Economics of Location. Yale University
A discussion of the spatial organization of the econo­
my as hexagonal.

A study of forest management.

A discussion of industrial location factors.

Mills, C. Wright. The Power Elite. New York: Oxford Press,
1956.
A sociological analysis of the great decision makers
of our time. The premise of this work is that an elite
of corporation, government, and military leaders make
decisions in which the people and their parliament have
no part.

A study of the history and theory of regionalism.

Presidents Materials Policy Commission. Foundations for
Growth and Security. Volume I of Resources for Freedom,
A report to the President. 5 volumes; Washington: U.S.
An evaluation of resources and the future.

Vol. II -- The Outlook for Key Commodities.
Vol. III -- The Outlook for Energy Sources.
Vol. IV -- The Premise of Technology.
Vol. V -- Selected Reports to the Commission.

A study of good land utilization.

A complete analysis of the administration in the great cities. The problems of the great city indicate what trends the small growing cities should avoid to avoid the problems now facing the great cities.

Some controversial municipal finance solutions are discussed.

A discussion of the property tax and its weaknesses.

The theory of investment, the marginal propensity to consume, and the multiplier effect are discussed.

B. GOVERNMENTS, LEARNED ORGANIZATIONS AND OTHERS

1. Corporations

The types of industry that would locate in the Trail Area are outlined.
A brief story of how the Consolidated Mining and Smelting Company grew.

An up-to-date appraisal of the activities and problems of Cominco.

An appraisal of the grim struggle in world trade with Soviet Russia.

The decrease in profits and prices of Cominco products, as well as a gloomy forecast is outlined.

2. Dominion Government


Ninth and Tenth Canada Census. 1951 and 1956.
Ottawa: Queen's Printer, 1952 and 1957.
Statistical source.

City taxation statistics.


The long term prospects of Canada's economic development with reference to resources, industry, and municipal finance aids are discussed.

3. Municipalities

Corporation of the City of Rossland. *Financial Statement for*


4. Planning Organizations

An analysis of the effects of economic expansion in some communities.

An outline of regional planning projects throughout the world.

A comprehensive regional development plan.

Philadelphia prepares to maintain its future manufacturing status by examining its economic base. A pertinent discussion of healthy diversification, economic stability, economic fluctuations, and selective expansion is given.

The need for a balanced regional development is discussed with regard to depressed areas.

A study of the Cincinnati Area economy.

An economic base study indicated the typical non-durable industry — these should be balanced by durable types.

5. Province of British Columbia


An analysis of regions in British Columbia providing population, industrial activity, natural resources, power supplies, transportation facilities, public utilities, social amenities, and other pertinent subjects.


A general source of provincial industrial activities over the years -- 1945-1957.


A source of local statistics.


6. Universities.

Crawford, K.G. Director. Single-Enterprise Communities in Canada. Institute of Local Government, Queen's University, 1953.

A survey of the single enterprise communities across Canada.


Planned residential development can be profitable.
A guide to economic base studies for local communities.

This course is a technical analysis of local administration in British Columbia. Detail on all municipalities, including Rossland and Trail is provided.

7. Other

An excellent source where geographical characteristics and resources in the Rossland-Trail Region and British Columbia can be found.

An examination of the economic base of Brockton when its major industry (shoe manufacturing) was faced with an economic recession. Recommendations for expansion and diversification were made.

Underdeveloped activities of the region are determined by a comparison of employment in that activity at the national level and at the regional level. A need for development is shown in the various activities by a location quotient.

These publications provide a clear picture of the state of our resources and the problems that confront regional resource development planning.

An economic analysis of the community. The report
points out the weaknesses of the economic structure resulting from large residential areas but no industry and indicates how the economic base may be strengthened.


A story of the first half-century of progress and development in the Trail Creek Area of the West Kootenay.

C. PERIODICALS


Studies of the mechanics, terminology, measurement, identification, definition, and changes of the basic service concept.


"Towns as Rural Service Centers: An Index of Centrality With Specific Reference to Somerset." Institute of British Geographic Transaction. 1953, pp. 95-106.

An hierarchy of central places is obtained by questionnaire.


Oskaloosa loses on the balance of trade to larger cities. A new technique is used to analyze the profits of the entire community by a balance of its imports and exports.


A description of the need and techniques of industrial development in communities.


A journal on Canadian taxation containing a discussion of municipal financial problems and some suggested solutions.


A study of small town planning to prevent big town problems.


A review of the problems of planning in small British Columbia towns.

D. UNPUBLISHED REPORTS


A service area is delimited by direct and indirect survey.


A detailed sociological analysis includes a history of the people and their characteristics which extends to include the Rossland-Trail Area.


A report to Council concerning the sewage problem.

E. STATUTES


A consolidation of legislation governing municipalities in British Columbia.

The Town and Rural Planning Act. Chapter 337 of the Provin-
APPENDIXES
# APPENDIX A

## I. PRIMARY ECONOMIC BASE

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Number of Employees</th>
<th>Income Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td>Part-time</td>
</tr>
<tr>
<td>City of Rossland</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Court House &amp; Public Health</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Department of Highways</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Bank of Montreal</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Post Office</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Canadian Pacific Railway</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Co-op Transportation</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Liquor Vendor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Consumer's Co-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butcheteria</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Savmor Store</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Okanagan Store</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Malahoff Store</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Handy Store</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Corner Store</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Rossghlen Store</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Red Mountain Store</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fleury's Store</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Wright's Meats</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Andy's Garage</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Hanson's Garage</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Albo's Garage</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Green's Garage</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Davies Transfer</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Walt's Transfer</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Seccombe's Transfer</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Rossland Motel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Red Mountain Auto Court</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Eaton's Store</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Wener's Clothing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ogroskin's Store</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Marie's Millinery</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Shoemaker</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Columbia Dry Goods</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Reid's Hardware</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Wise's Hardware</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Allan Hotel</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Irvin Hotel</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
### APPENDIX A (continued)

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Number of Employees</th>
<th>Income Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td>Part-time</td>
</tr>
<tr>
<td>Orwell Hotel</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Legion</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Clinic -- Doctors</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Nurses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Dr. Gregorak, dentist &amp; nurse</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Dr. Courville, dentist, &amp; nurse</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Barristers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Wm. Baker -- Real Estate</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Hertig -- Real Estate</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Rexall Drug</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Davies Drug</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Tibby's Hair Dresser</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Commosotti -- Electric Goods</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Poolroom</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Novelty Store</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Booty's Ski Shop</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Delich Jewelry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Butorac Jewelry</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Silver Grill</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Sunshine Grill</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Bowling Alley (cafe &amp; alleys)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Smitty's Taxi</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Golden City Taxi</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Schwartzenhauer's Bakery</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Freddy's Bakery</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Heywood Cleaners</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Bus Depot</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Swimming Pool</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Arena</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Coventry's Flowers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Daloise Tobacco</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Jones Accounting</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Capitol Barber Shop</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Bank Barber Shop</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Rossland Fuel &amp; Building Supp.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lazareff Jr. Building Supplies</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plotnikoff Building Supplies</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Modern Plumbing (Yawney)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sissom's Body Shop</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Harry's, the Plumber</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>School Board</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX A (continued)

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Number of Employees</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Income Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairies -- Dougans</td>
<td>2</td>
<td></td>
<td></td>
<td>$8,000</td>
</tr>
<tr>
<td>French's</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td>Glovers</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td>Valley Dairy</td>
<td>3</td>
<td></td>
<td></td>
<td>$12,000</td>
</tr>
<tr>
<td>Jensens</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>377</strong></td>
<td><strong>40</strong></td>
<td></td>
<td><strong>$1,197,000</strong></td>
</tr>
</tbody>
</table>

### II. SECONDARY ECONOMIC BASE

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Number of Employees</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Income Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mines -- Velvet, Snowdrop, IXL, etc.</td>
<td>6</td>
<td></td>
<td></td>
<td>$30,000</td>
</tr>
<tr>
<td>Stoney Creek Exploration</td>
<td>2</td>
<td></td>
<td></td>
<td>$5,000</td>
</tr>
<tr>
<td>Old Glory Lookout</td>
<td>3</td>
<td></td>
<td></td>
<td>$13,000</td>
</tr>
<tr>
<td>Farmers -- Drakes</td>
<td>3</td>
<td></td>
<td></td>
<td>$12,000</td>
</tr>
<tr>
<td>Paterson Farms</td>
<td>6</td>
<td></td>
<td></td>
<td>$32,000</td>
</tr>
<tr>
<td>Big Sheep Farms</td>
<td>8</td>
<td></td>
<td></td>
<td>$24,000</td>
</tr>
<tr>
<td>Jones Logging</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td>Paul Logging</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td>Jumbo Saw Mill</td>
<td>1</td>
<td></td>
<td></td>
<td>$4,000</td>
</tr>
<tr>
<td>Paterson Customs</td>
<td>6</td>
<td></td>
<td></td>
<td>$30,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>37</strong></td>
<td></td>
<td></td>
<td><strong>$158,000</strong></td>
</tr>
</tbody>
</table>

Source: From a survey completed in Rossland by the Author, through the assistance of the Rossland Chamber of Commerce.
APPENDIX B

People in prominent positions in the City of Rossland were asked in a survey\(^1\) during December, 1957, what people, in their opinion, had the greatest influence in making major decisions which could affect Rossland as a community, briefly, who are the men of the local power elite? The answers to this question were tallied and in the order of their most frequent occurrence the following names appeared:

1. General Manager of Cominco
2. Member of Parliament for Kootenay West
3. Member of the Legislative Assembly for Rossland-Trail
4. Mayor of the City of Rossland
5. General Manager of the West Kootenay Power and Light Company (Owned by Cominco)
6. President of the Senior Board of Trade
7. Manager of the Bank of Montreal
8. Publisher of the Rossland Miner
9. City Clerk (retired)
10. President of the Canadian Legion
11. Postmaster
12. Officer-in-Charge of Customs
13. United Church Minister
14. Catholic Priest
15. Police Magistrate
16. City Solicitor
17. President of the Labor Union
18. An alderman
19. Manager of the Rossland Transportation Society
20. A local sport promoter

A survey of local organizations was also made to determine how many of their presidents or directors were Cominco

\(^1\)A survey undertaken by the Author for an essay -- "Why People Live in Rossland" for Sociology 425 at the University of British Columbia, Vancouver, March, 1958.
employees. It was found that 80% of them were employed by Cominco. At the same time it was found that 40% of them were Cominco staff employees. The Cominco element was predominant in local organizations as well as in the power elite.