



**US Army Corps
of Engineers®**
Portland District



WILLAMETTE VALLEY SYSTEM OPERATIONS AND MAINTENANCE

FINAL ENVIRONMENTAL IMPACT STATEMENT

APPENDIX I: SOCIOECONOMICS ANALYSIS

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

TABLE OF CONTENTS

CHAPTER 1 - Socioeconomics	1
1.1 Introduction	1
1.2 Method for CONDUCTING REGIONAL Economic development evaluation	1
1.3 Economic Measure and Economic Impacts Evaluated	2
1.4 REGIONAL ECONOMIC ACTIVITY SUPPORTED BY PROJECT CONSTRUCTION EXPENDITURES.....	4
1.5 Alternative 1 - Regional Effects of Proposed Construction Spending	9
Alt 1 - Salem MSA Projects	9
Alt 1 - Albany MSA Projects	11
Alt 1 – Eugene MSA Projects	13
1.6 Alternative 2A - Regional Effects of Proposed Construction Spending	15
Alt 2A - Salem MSA Projects	15
Alt 2A - Albany MSA Projects	17
Alt 2A – Eugene MSA Projects	19
1.7 Alternative 2B/ 5 - Regional Effects of Proposed Construction Spending.....	21
Alt 2B - Salem MSA Projects	21
Alt 2B/ 5 - Albany MSA Projects	23
Alt 2B/ 5 – Eugene MSA Projects	25
1.8 Alternative 3A - Regional Effects of Proposed Construction Spending	27
Alt 3A - Salem MSA Projects	27
Alt 3A - Albany MSA Projects	29
Alt 3A – Eugene MSA Projects	31
1.9 Alternative 3B - Regional Effects of Proposed Construction Spending	33
Alt 3B - Salem MSA Projects	33
Alt 3B - Albany MSA Projects	35
Alt 3B – Eugene MSA Projects	37
1.10 Alternative 4 - Regional Effects of Proposed Construction Spending	39
Alt 4 - Salem MSA Projects	39
Alt 4 - Albany MSA Projects	41
Alt 4 – Eugene MSA Projects	43
1.11 Conclusion	44

TABLES

Table 1-1. Alternatives Comparison – Construction Spending Value Added.....	4
Table 1-2. Alternatives Comparison – Construction Spending Labor Income	4
Table 1-3. Alternatives Comparison – Construction Spending Jobs Supported	5
Table 1-4. Alternatives Comparison – Construction Spending Output.....	5
Table 1-5. Alternatives Comparison – Local Capture.....	6
Table 1-6. Alt 1 Salem MSA Local Impacts	9
Table 1-7. Alt 1 Salem MSA State Impacts	10
Table 1-8. Alt 1 Salem MSA U.S. Impacts	10
Table 1-9. Alt 1 Albany MSA Local Impacts.....	11
Table 1-11. Alt 1 Albany MSA U.S. Impacts.....	12
Table 1-12. Alt 1 Eugene MSA Local Impacts.....	13
Table 1-13. Alt 1 Eugene MSA State Impacts.....	14

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-14. Alt 1 Eugene MSA U.S. Impacts.....	14
Table 1-15. Alt 2A Salem MSA Local Impacts.....	15
Table 1-16. Alt 2A Salem MSA State Impacts.....	16
Table 1-17. Alt 2A Salem MSA U.S. Impacts.....	16
Table 1-18. Alt 2A Albany MSA Local Impacts	17
Table 1-19. Alt 2A Albany MSA State Impacts	17
Table 1-20. Alt 2A Albany MSA U.S. Impacts	18
Table 1-21. Alt 2A Eugene MSA Local Impacts.....	19
Table 1-22. Alt 2A Eugene MSA State Impacts	19
Table 1-23. Alt 2A Eugene MSA U.S. Impacts	20
Table 1-24. Alt 2B/ 5 Salem MSA Local Impacts	21
Table 1-25. Alt 2B/ 5 Salem MSA State Impacts	21
Table 1-26. Alt 2B/ 5 Salem MSA U.S. Impacts	22
Table 1-27. Alt 2B / 5 Albany MSA Local Impacts	23
Table 1-28. Alt 2B/ 5 Albany MSA State Impacts	23
Table 1-29. Alt 2B/ 5 Albany MSA U.S. Impacts	24
Table 1-30. Alt 2B/5 Eugene MSA Local Impacts	25
Table 1-31. Alt 2B/ 5 Eugene MSA State Impacts	25
Table 1-32. Alt 2B/ 5 Eugene MSA U.S. Impacts	26
Table 1-33. Alt 3A Salem MSA Local Impacts.....	27
Table 1-34. Alt 3A Salem MSA State Impacts.....	27
Table 1-35. Alt 3A Salem MSA U.S. Impacts.....	28
Table 1-36. Alt 3A Albany MSA Local Impacts	29
Table 1-37. Alt 3A Albany MSA State Impacts	29
Table 1-38. Alt 3A Albany MSA U.S. Impacts	30
Table 1-39. Alt 3A Eugene MSA Local Impacts.....	31
Table 1-40. Alt 3A Eugene MSA State Impacts	31
Table 1-41. Alt 3A Eugene MSA U.S. Impacts	32
Table 1-42. Alt 3B Salem MSA Local Impacts.....	33
Table 1-43. Alt 3B Salem MSA State Impacts.....	33
Table 1-44. Alt 3B Salem MSA U.S. Impacts.....	34
Table 1-45. Alt 3B Albany MSA Local Impacts.....	35
Table 1-46. Alt 3B Albany MSA State Impacts	35
Table 1-47. Alt 3B Albany MSA U.S. Impacts	36
Table 1-48. Alt 3B Eugene MSA Local Impacts.....	37
Table 1-49. Alt 3B Eugene MSA State Impacts.....	37
Table 1-50. Alt 3B Eugene MSA U.S. Impacts.....	38
Table 1-51. Alt 4 Salem MSA Local Impacts	39
Table 1-52. Alt 4 Salem MSA State Impacts.....	39
Table 1-53. Alt 4 Salem MSA U.S. Impacts.....	40
Table 1-54. Alt 4 Albany MSA Local Impacts.....	41

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-55. Alt 4 Albany MSA State Impacts	41
Table 1-56. Alt 4 Albany MSA U.S. Impacts.....	42
Table 1-57. Alt 4 Eugene MSA Local Impacts.....	43
Table 1-58. Alt 4 Eugene MSA State Impacts.....	43
Table 1-59. Alt 4 Eugene MSA U.S. Impacts.....	44

CHAPTER 1 - SOCIOECONOMICS

1.1 INTRODUCTION

This appendix presents an estimate of the region economic activity that would be supported by the proposed actions for the Willamette Valley System Operations and Maintenance Draft Programmatic Environmental Impact Statement.

The U.S. Army Corps of Engineers (USACE) Institute for Water Resources, Louis Berger, and Michigan State University have developed a regional economic impact modeling tool, RECONS (Regional ECONomic System), that provides estimates of jobs and other economic measures such as labor income, value added, and sales that are supported by USACE programs, projects, and activities. This modeling tool automates calculations and generates estimates of jobs, labor income, value added, and sales through the use of IMPLAN®'s multipliers and ratios, customized impact areas for USACE project locations, and customized spending profiles for USACE projects, business lines, and work activities. RECONS allows the USACE to evaluate the regional economic impact and contribution associated with USACE expenditures, activities, and infrastructure.

RECONS output tables are presented by alternative, with project construction effects aggregated to nearest Metropolitan Statistical Area. For Example, Green Peter and Foster reservoirs are located along the same fork of the Salem MSA within the Salem Metropolitan Area. Therefore, results for these two reservoirs are presented together. The economic impact term region of influence will be referred to as the area of analysis for the purpose of this evaluation.

Adding other socioeconomic environmental effects presented in Chapter 3.11, such as demographic tables, to this appendix would be redundant as they present the information in the chapter the same way it would be presented in the appendix. The RECONS data is summarized in Chapter 3.11 with more specific tables presented in this appendix.

1.2 METHOD FOR CONDUCTING REGIONAL ECONOMIC DEVELOPMENT EVALUATION

RECONS comprises two sets of modules: (1) Civil Works Spending Modules; and (2) USACE Programs & Infrastructure Modules.

The Civil Works Spending Modules are used to estimate the regional economic impacts and contributions of project expenditures within the eight USACE Civil Works business lines. Project expenditures include studies, construction, and operations and maintenance activities. The Civil Works Spending Modules allow the user to specify the project location and work activity to estimate the economic output, jobs, income, and value added for three levels of geography: local, state, and national impact areas. The Civil Works Spending Module 'All Work Activities, with Ability to Customize Impact Area and Work Activity' was used to generate the economic activity supported by project construction and OMRR&R expenditures.

1.3 ECONOMIC MEASURE AND ECONOMIC IMPACTS EVALUATED

RECONS presents estimates of new or existing economic activity (impacts or contributions, respectively) in the following measures: output (sales); jobs, labor income and value added. These terms are defined below.

Output (Sales): Annual sales are equivalent to annual economic output or the value of production by industry. Output can be measured either by total value of purchases by intermediate and final consumers or by intermediate outlays plus value added.

Jobs: A job is the annual average of monthly jobs in an industry (this is the same definition used by Quarterly Census of Employment and Wages, Bureau of Labor Statistics, and Bureau of Economic Analysis nationally). A job can be full-time, part-time or overtime, and includes proprietors (i.e., self-employed persons). Job estimates are presented in full-time equivalence.

Labor Income: Labor income represents all forms of annual employment earnings; it is the sum of employee compensation and proprietor income.

Value Added: Value added consists of employee compensation, proprietary income, other property type income (which includes industry profits), and indirect business taxes. Value-added is an estimate of gross regional product (GRP).

RECONS includes three categories of economic impacts: direct, indirect and induced. These terms are defined below.

Direct Impacts: Direct impacts occur in the impact area in which a project or economic activity is located. Direct sales represent that proportion of the spending or sales in each industry that flows to material and service providers in the impact area. For employment, labor income, and GRP measures, the direct impacts represent the jobs, labor income, and valued added (gross regional product) associated with the directly affected industry.

Indirect Impacts: The indirect impacts include the backward-linked industry suppliers for goods and services that support the directly affected industries, supporting indirect sales, jobs, labor income and value added. For example, if construction activity is the direct impact, indirect business supporting construction would include architectural and engineering, lumber suppliers, trucking, and steel manufacturers, among others; these are considered backward-linked industries supporting the construction activity.

Induced Impacts: Induced impacts occur from household expenditures or consumer spending associated with the direct and indirect workers spending their earnings within the impact area, supporting induced sales, jobs, labor income, and value added.

Total Impacts: Total impacts is the sum of direct, indirect, and induced impacts.

The purpose of using this model as mentioned above is to estimate the socioeconomic impacts of project spending. Direct effects represent that proportion of the expenditure in each

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

industry that flows to material and service providers within the project's impact area. The indirect effects include the backward-linked industry suppliers for any goods and services used by the directly affected activities. Indirect effects are captured in the secondary effects in RECONS. The induced effect occurs from household expenditures or consumer spending associated with workers' earnings from both direct and indirect labor income. Induced effects are captured in the secondary effects in RECONS.

The economic term generally known as the geographic capture rate will be referred to as the local purchase coefficient for the purpose of this analysis. The Local Purchase Coefficient is the portion of industry sales satisfied with industries located within the impact area. In most cases, IMPLAN's trade flows Regional Purchase Coefficients (RPCs) are utilized to estimate this proportion. The LPCs are ratios from 0 to 1, with 1 indicating that all of the direct effect would be captured within the specified impact area.

IMPLAN software and database program that estimates input-output models based on data and assumptions of social accounting and multipliers. Input-output analysis is an economic model that estimates the change in overall economic activity as a result of some corresponding change in one or several direct stimulus to an economy. The economic activity supported by the project during its construction is proportional to project expenditures in a given year (e.g., if 20% of expenditures are incurred in fiscal year 2021, approximately 20% of the total economic activity is attributed to fiscal year 2021).

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

1.4 REGIONAL ECONOMIC ACTIVITY SUPPORTED BY PROJECT CONSTRUCTION EXPENDITURES

Table 1-1. Alternatives Comparison – Construction Spending Value Added

Alternatives Comparison - Value Added									
	Local Impacts			State Impacts			US Impacts		
	Direct	Secondary	Total	Direct	Secondary	Total	Direct	Secondary	Total
Alt 1	\$1,205,000	\$1,015,000	\$2,221,000	\$1,463,000	\$1,502,000	\$2,966,000	\$1,488,000	\$2,676,000	\$4,165,000
Alt 2A	\$766,000	\$673,000	\$1,439,000	\$920,000	\$944,000	\$1,864,000	\$935,000	\$1,682,000	\$2,618,000
Alt 2B/ 5	\$736,000	\$644,000	\$1,380,000	\$883,000	\$907,000	\$1,791,000	\$899,000	\$1,616,000	\$2,515,000
Alt3A	\$222,000	\$207,000	\$429,000	\$269,000	\$276,000	\$545,000	\$273,000	\$491,000	\$765,000
Alt 3B	\$263,000	\$247,000	\$510,000	\$319,000	\$327,000	\$646,000	\$324,000	\$582,000	\$907,000
Alt 4	\$1,299,000	\$1,188,000	\$2,488,000	\$1,564,000	\$1,604,000	\$3,168,000	\$1,590,000	\$2,858,000	\$4,448,000

Values shown in \$1,000s

Table 1-2. Alternatives Comparison – Construction Spending Labor Income

Alternatives Comparison - Labor Income									
	Local Impacts			State Impacts			US Impacts		
	Direct	Secondary	Total	Direct	Secondary	Total	Direct	Secondary	Total
Alt 1	\$1,704,000	\$592,000	\$2,297,000	\$1,910,000	\$890,000	\$2,801,000	\$1,958,000	\$1,544,000	\$3,503,000
Alt 2A	\$1,086,000	\$391,000	\$1,477,000	\$1,203,000	\$559,000	\$1,763,000	\$1,232,000	\$971,000	\$2,204,000
Alt 2B/ 5	\$1,045,000	\$374,000	\$1,420,000	\$1,156,000	\$537,000	\$1,694,000	\$1,184,000	\$932,000	\$2,117,000
Alt 3A	\$302,000	\$121,000	\$424,000	\$349,000	\$163,000	\$513,000	\$358,000	\$283,000	\$642,000
Alt 3B	\$358,000	\$145,000	\$503,000	\$414,000	\$194,000	\$608,000	\$425,000	\$336,000	\$762,000
Alt 4	\$1,807,000	\$694,000	\$2,501,000	\$2,040,000	\$951,000	\$2,991,000	\$2,091,000	\$1,650,000	\$3,741,000

Values shown in \$1,000s

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-3. Alternatives Comparison – Construction Spending Jobs Supported

Alternatives Comparison - Jobs Supported									
	Local Impacts			State Impacts			US Impacts		
	Direct	Secondary	Total	Direct	Secondary	Total	Direct	Secondary	Total
Alt 1	21.2	10.5	31.8	22.5	13.9	36.4	22.5	21.9	44.5
Alt 2A	13.2	6.9	20.1	14.1	8.7	22.8	14.1	13.8	27.9
Alt 2B/ 5	12.7	6.6	19.3	13.5	8.4	21.9	13.5	13.2	26.8
Alt 3A	3.9	2.1	6.0	4.1	2.6	6.7	4.1	4.0	8.2
Alt 3B	4.6	2.5	7.1	4.9	3.0	7.9	4.9	4.8	9.7
Alt 4	22.6	12.1	34.7	23.9	14.8	38.8	23.9	23.4	47.4

Values shown in \$1,000s

Table 1-4. Alternatives Comparison – Construction Spending Output

Alternatives Comparison - Output									
	Local Impacts			State Impacts			US Impacts		
	Direct	Secondary	Total	Direct	Secondary	Total	Direct	Secondary	Total
Alt 1	\$2,199,000	\$1,794,000	\$3,993,000	\$2,408,000	\$2,626,000	\$5,035,000	\$2,408,000	\$4,955,000	\$7,364,000
Alt 2A	\$1,382,000	\$1,181,000	\$2,564,000	\$1,514,000	\$1,651,000	\$3,165,000	\$1,514,000	\$3,114,000	\$4,629,000
Alt 2B/ 5	\$1,327,000	\$1,132,000	\$2,459,000	\$1,454,000	\$1,585,000	\$3,040,000	\$1,454,000	\$2,992,000	\$4,446,000
Alt3A	\$404,000	\$358,000	\$763,000	\$442,000	\$482,000	\$925,000	\$442,000	\$910,000	\$1,353,000
Alt 3B	\$479,000	\$427,000	\$906,000	\$524,000	\$572,000	\$1,096,000	\$524,000	\$1,079,000	\$1,604,000
Alt 4	\$2,350,000	\$2,068,000	\$4,418,000	\$2,572,000	\$2,805,000	\$5,378,000	\$2,572,000	\$5,292,000	\$7,865,000

Values shown in \$1,000s

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-5. Alternatives Comparison – Local Capture

Alternatives Comparison - Local Capture			
	Local	State	US
Alt 1	\$2,199,000	\$2,408,000	\$2,408,000
Alt 2A	\$1,382,000	\$1,514,000	\$1,514,000
Alt 2B/ 5	\$1,327,000	\$1,454,000	\$1,454,000
Alt3A	\$404,000	\$442,000	\$442,000
Alt 3B	\$479,000	\$524,000	\$524,000
Alt 4	\$2,350,000	\$2,572,000	\$2,572,000

Values shown in \$1,000s

The following regional economic development (RED) evaluation measures the change in economic activity resulting from the implementation of an authorized project. For the purposes of this RED evaluation, project construction costs include capital construction costs for the proposed actions of the Willamette Valley System Operations and Maintenance Draft Programmatic Environmental Impact Statement. The total cost (expenditure) estimated for these activities over the project implementation period is presented in Appendix M. USACE project spending translate to industry revenues in the location of our projects, and each of these project locations is tied to the nearest Metropolitan Statistical Area (MSA), called local impact areas or MSA from here on. This is local impact area is part of the total impact area analyzed in the section, also at the State and National level. The Office of Management and Budget (OMB) describes the MSA as containing an urban cluster of greater than 50,000 people. The Salem statistical area includes the 2 projects on the North Santiam River (Detroit and Big Cliff). The Albany statistical area includes the 2 projects on the South Santiam River (Foster and Green Peter). The Eugene statistical area includes the 1 project on the Long Tom River (Fern Ridge), the 2 projects on the McKenzie River (Cougar and Blue River), and the 4 projects on the Middle Fork (Hills Creek, Lookout Point, Dexter, and Fall Creek). The areas of analysis for this RED evaluation are presented in Figures below.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

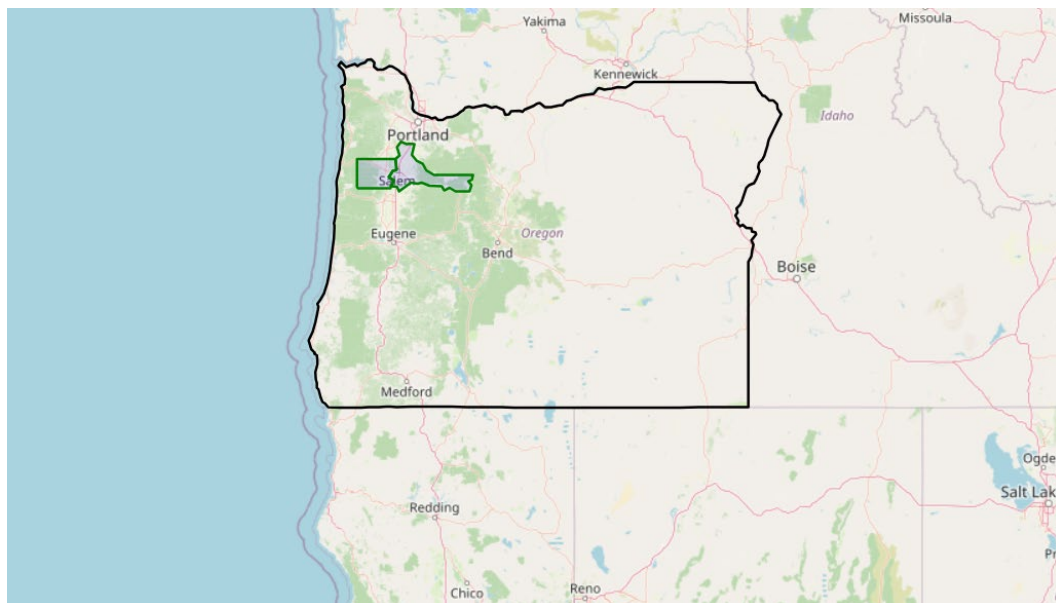


Figure 1-1. ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US)

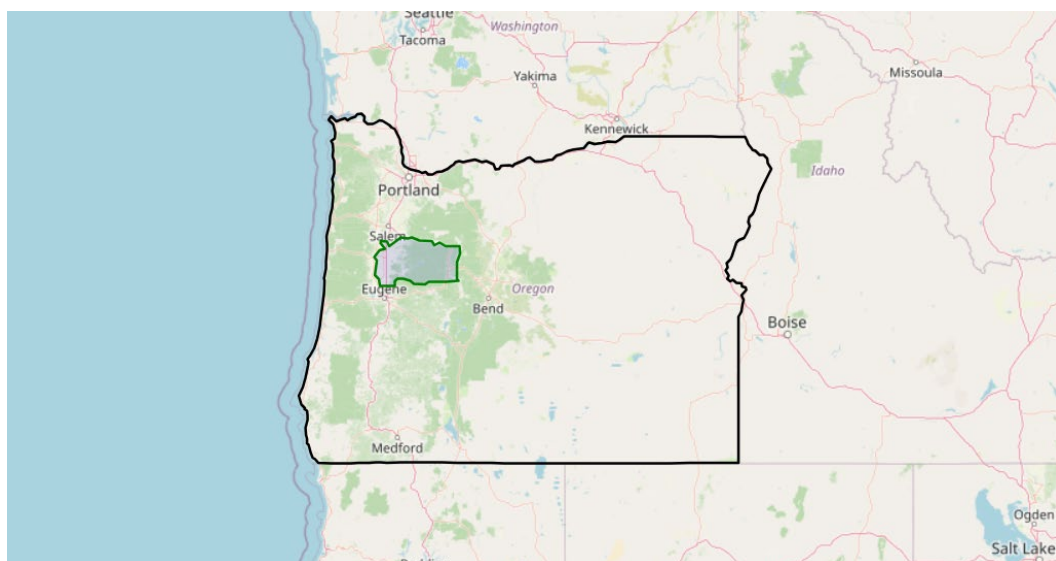


Figure 1-2. ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US)

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

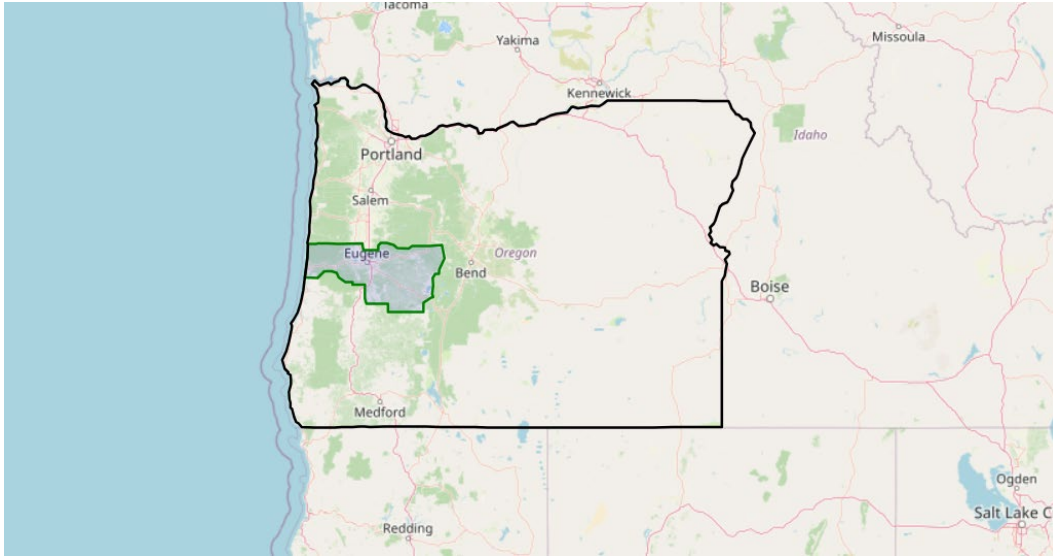


Figure 1-3. ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US)

Impact areas are the geographic location in which the economic stimulus or change in final demand occurs. RECONS provides the ability to evaluate economic impacts simultaneously for three general levels of geography: (1) local (one or more counties); (2) state or multi-state; and (3) nation. RECONS provides options when choosing a local impact area: a county, core-based statistical area, a generic impact area (rural, micro, metro, or large-scale region), or an existing USACE project impact area that includes the county or counties where the project is located and adjacent economically-connected counties. RECONS also includes the ability for the user to create a customized multi-county local impact area.

The local capture amount is the federal spending on industries (allocated by work activity profiles) multiplied by the local impact area LPC. The direct effects are equal to the local capture amount multiplied by the local impact area direct ratios for employment, value added, and labor income. The local capture is equal to the direct output. The local indirect impacts are equal to the local capture multiplied by the indirect multipliers, and the local induced impacts are equal to the local capture multiplied by the induced multipliers. The local total effects are equal to the sum of the direct, indirect, and induced effects for output, employment, value added, and labor income.

The state capture amount is equal to the federal spending on industries multiplied by the state geographic capture rate. The “state increment spending” is equal to the federal spending multiplied by the difference between the state and local geographic capture rate. The direct state impacts are equal to the local direct impacts (calculated in “Local Impacts” above) plus the state increment spending multiplied by the state direct multipliers. The state indirect impacts are equal to the state capture multiplied by the state indirect impacts multipliers. The state induced impacts are equal to the state capture multiplied by the state induced multipliers. The total state impacts are equal to the direct, indirect, and induced state impacts for output, employment, value added, and labor income.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

The national capture amount is equal to the federal spending on industries multiplied by the national industry geographic capture rate. The “national increment spending” is equal to the national federal spending multiplied by the difference between the nation and state geographic capture rates. The direct national impacts are equal to the state direct impacts (calculated in “Local Impacts” above) plus the national increment multiplied by the national direct multipliers. The national indirect impacts are equal to the national capture multiplied by the national indirect impacts multipliers. The national induced impacts are equal to the national capture multiplied by the national induced multipliers. The total national impacts are equal to the direct, indirect, and induced national impacts for output, employment, value added, and labor income.

1.5 ALTERNATIVE 1 - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 1 - Salem MSA Projects

Table 1-6. Alt 1 Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$265,730,272
463	Environmental and other technical consulting services	\$7,163,156	70	\$5,074,730	\$4,574,409
470	Office administrative services	\$29,658,000	400	\$25,337,637	\$10,363,488
544	* Employment and payroll of federal govt, non-military	\$222,435,000	1,100	\$152,308,788	\$222,435,000
	Direct Impact	\$901,846,156	8,600	\$727,024,568	\$503,103,169
	Secondary Impact	\$763,539,000	4,400	\$250,240,102	\$432,068,836
	Total Impact	\$1,665,385,157	13,000	\$977,264,670	\$935,172,005

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-7. Alt 1 Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$282,376,912
463	Environmental and other technical consulting services	\$9,823,560	90	\$7,110,360	\$6,408,148
470	Office administrative services	\$39,544,000	600	\$33,783,516	\$15,223,816
544	* Employment and payroll of federal govt, non-military	\$296,580,000	1,500	\$203,078,388	\$296,580,000
	Direct Impact	\$988,537,560	9,100	\$788,275,679	\$600,588,877
	Secondary Impact	\$1,077,941,421	5,700	\$365,537,979	\$616,629,910
	Total Impact	\$2,066,478,981	14,800	\$1,153,813,658	\$1,217,218,786

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-8. Alt 1 Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$289,681,668
463	Environmental and other technical consulting services	\$9,875,567	90	\$7,730,917	\$6,848,957
470	Office administrative services	\$39,544,000	600	\$42,098,552	\$17,966,596
544	* Employment and payroll of federal govt, non-military	\$296,580,000	1,500	\$212,523,344	\$296,580,006
	Direct Impact	\$988,589,567	9,100	\$806,656,227	\$611,077,227
	Secondary Impact	\$2,033,706,310	9,000	\$634,053,981	\$1,098,383,332
	Total Impact	\$3,022,295,877	18,100	\$1,440,710,208	\$1,709,460,560

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 1, SALEM MSA PROJECTS are estimated to be \$988.6 million. Of this total expenditure, \$902 million will be captured within the local impact area, the Salem MSA area of analysis. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$988.6 million support a total of 13,000 full-time equivalent jobs, \$977 million in labor income, \$935 million in the value added, and \$1.7 billion in economic output in the local impact area. Nationally, these expenditures support 18,100 full-time equivalent jobs, \$1.4 billion in labor income, \$1.7 billion in the value added, and \$3 billion in economic output.

Alt 1 - Albany MSA Projects

Table 1-9. Alt 1 Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$489,579,992	5,600	\$385,535,670	\$187,087,304
463	Environmental and other technical consulting services	\$5,848,215	60	\$3,803,541	\$3,459,175
470	Office administrative services	\$22,596,000	300	\$18,033,469	\$6,527,521
544	* Employment and payroll of federal govt, non-military	\$169,470,000	700	\$116,041,852	\$169,469,994
	Direct Impact	\$687,494,208	6,700	\$523,414,532	\$366,543,994
	Secondary Impact	\$475,406,877	2,800	\$153,297,348	\$260,945,325
	Total Impact	\$1,162,901,084	9,600	\$676,711,879	\$627,489,319
IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0.0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	6998.1	\$544,303,414	\$265,730,272
463	Environmental and other technical consulting services	\$7,163,156	65.4	\$5,074,730	\$4,574,409
470	Office administrative services	\$29,658,000	413.0	\$25,337,637	\$10,363,488
544	* Employment and payroll of federal govt, non-military	\$222,435,000	1127.4	\$152,308,788	\$222,435,000
	Direct Impact	\$901,846,156	8603.9	\$727,024,568	\$503,103,169
	Secondary Impact	\$763,539,000	4432.7	\$250,240,102	\$432,068,836
	Total Impact	\$1,665,385,157	13036.6	\$977,264,670	\$935,172,005

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-10. Alt 1 Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$489,580,000	5,600	\$410,983,897	\$215,138,873
463	Environmental and other technical consulting services	\$7,484,428	80	\$5,417,280	\$4,882,275
470	Office administrative services	\$30,128,000	500	\$24,108,346	\$11,598,805
544	* Employment and payroll of federal govt, non-military	\$225,960,000	1,000	\$154,722,478	\$225,960,000
	Direct Impact	\$753,152,428	7,200	\$595,232,002	\$457,579,953
	Secondary Impact	\$821,267,932	4,300	\$278,498,084	\$469,801,384
	Total Impact	\$1,574,420,361	11,500	\$873,730,086	\$927,381,337

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-10. Alt 1 Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$489,580,000	5,600	\$410,983,897	\$220,704,261
463	Environmental and other technical consulting services	\$7,524,051	80	\$5,890,073	\$5,218,121
470	Office administrative services	\$30,128,000	500	\$32,074,276	\$13,688,489
544	* Employment and payroll of federal govt, non-military	\$225,960,000	1,000	\$161,918,453	\$225,960,005
	Direct Impact	\$753,192,051	7,200	\$610,866,700	\$465,570,876
	Secondary Impact	\$1,549,451,338	6,900	\$483,076,531	\$836,842,329
	Total Impact	\$2,302,643,389	14,000	\$1,093,943,231	\$1,302,413,204

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 1, ALBANY MSA PROJECTS are estimated to be \$753.2 million. Of this total expenditure, \$687 million will be captured within the local impact area, the Albany MSA area of analysis. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Albany MSA expenditures \$753.2 million support a total of 9,600 full-time equivalent jobs, \$677 million in labor income, \$627 million in the value added, and \$1.2 billion in economic output in the local impact area. Nationally, these expenditures support 14,000 full-time equivalent jobs, \$1.1 billion in labor income, \$1.3 billion in value added, and \$2.3 billion in economic output.

Alt 1 – Eugene MSA Projects

Table 1-11.Alt 1 Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$433,550,000	4,800	\$331,846,833	\$174,082,338
463	Environmental and other technical consulting services	\$6,289,891	70	\$3,884,428	\$3,619,103
470	Office administrative services	\$20,010,000	300	\$15,849,064	\$8,099,326
544	* Employment and payroll of federal govt, non-military	\$150,075,000	700	\$102,761,443	\$150,074,997
	Direct Impact	\$609,924,891	5,900	\$454,341,768	\$335,875,764
	Secondary Impact	\$555,262,031	3,300	\$189,384,095	\$322,669,839
	Total Impact	\$1,165,186,922	9,100	\$643,725,863	\$658,545,604

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-12. Alt 1 Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$433,550,000	4,800	\$363,948,831	\$190,517,298
463	Environmental and other technical consulting services	\$6,627,872	70	\$4,797,300	\$4,323,523
470	Office administrative services	\$26,680,000	400	\$21,349,266	\$10,799,102
544	* Employment and payroll of federal govt, non-military	\$200,100,000	1,000	\$137,015,259	\$200,100,000
	Direct Impact	\$666,957,872	6,200	\$527,110,655	\$405,739,923
	Secondary Impact	\$727,341,878	3,800	\$246,625,361	\$416,034,948
	Total Impact	\$1,394,299,751	10,000	\$773,736,016	\$821,774,871

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-13. Alt 1 Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$433,550,000	4,800	\$363,948,831	\$195,445,754
463	Environmental and other technical consulting services	\$6,662,961	70	\$5,215,984	\$4,620,933
470	Office administrative services	\$26,680,000	400	\$28,403,535	\$12,121,909
544	* Employment and payroll of federal govt, non-military	\$200,100,000	1,000	\$143,387,690	\$200,100,004
	Direct Impact	\$666,992,961	6,200	\$540,956,039	\$412,288,601
	Secondary Impact	\$1,372,124,326	6,100	\$427,790,821	\$741,069,879
	Total Impact	\$2,039,117,287	12,300	\$968,746,860	\$1,153,358,480

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 1, EUGENE MSA PROJECTS are estimated to be \$667 million. Of this total expenditure, \$610 million will be captured within the local impact area, the Eugene MSA area of analysis. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures \$667 million support a total of 9,100 full-time equivalent jobs, \$644 million in labor income, \$659 million in value added, and \$1.2 billion in economic output in the local impact area. Nationally, these expenditures support 12,300 full-time equivalent jobs, \$969 million in labor income, \$1.2 billion in value added, and \$2 billion in economic output.

1.6 ALTERNATIVE 2A - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 2A - Salem MSA Projects

Table 1-14. Alt 2A Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$264,036,867
463	Environmental and other technical consulting services	\$7,117,508	70	\$5,042,390	\$4,545,258
470	Office administrative services	\$29,469,000	400	\$25,176,169	\$10,297,445
544	* Employment and payroll of federal govt, non-military	\$221,017,500	1,100	\$151,338,178	\$221,017,500
	Direct Impact	\$896,099,008	8,500	\$722,391,497	\$499,897,070
	Secondary Impact	\$758,673,235	4,400	\$248,645,409	\$429,315,413
	Total Impact	\$1,654,772,243	13,000	\$971,036,906	\$929,212,483

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-15. Alt 2A Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$280,577,424
463	Environmental and other technical consulting services	\$9,760,958	90	\$7,065,049	\$6,367,311
470	Office administrative services	\$39,292,000	500	\$33,568,225	\$15,126,800
544	* Employment and payroll of federal govt, non-military	\$294,690,000	1500	\$201,784,241	\$294,690,000
	Direct Impact	\$982,237,958	9,100	\$783,252,275	\$596,761,535
	Secondary Impact	\$1,071,072,079	5,700	\$363,208,534	\$612,700,344
	Total Impact	\$2,053,310,037	14,700	\$1,146,460,809	\$1,209,461,879

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-16. Alt 2A Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$287,835,629
463	Environmental and other technical consulting services	\$9,812,633	90	\$7,681,650	\$6,805,311
470	Office administrative services	\$39,292,000	500	\$41,830,273	\$17,852,101
544	* Employment and payroll of federal govt, non-military	\$294,690,000	1,500	\$211,169,007	\$294,690,006
	Direct Impact	\$982,289,633	9,100	\$801,515,691	\$607,183,047
	Secondary Impact	\$2,020,746,215	8,900	\$630,013,378	\$1,091,383,722
	Total Impact	\$3,003,035,849	18,000	\$1,431,529,069	\$1,698,566,769

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2A, SALEM MSA PROJECTS are estimated to be \$982.3 million. Of this total expenditure, \$896 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$982.3 million support a total of 13,000 full-time equivalent jobs, \$971 million in labor income, \$929 million in value added, and \$1.7 billion in economic output in the local impact area. Nationally, these expenditures support 18,000 full-time equivalent jobs, \$1.4 million in labor income, \$1.7 billion in value added, and \$3 billion in economic output.

Alt 2A - Albany MSA Projects

Table 1-17. Alt 2A Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$63,829,999	700	\$50,265,006	\$24,391,892
463	Environmental and other technical consulting services	\$762,473	8	\$495,894	\$450,997
470	Office administrative services	\$2,946,000	40	\$2,351,151	\$851,039
544	* Employment and payroll of federal govt, non-military	\$22,095,000	90	\$15,129,195	\$22,094,999
	Direct Impact	\$89,633,472	900	\$68,241,247	\$47,788,928
	Secondary Impact	\$61,982,150	400	\$19,986,457	\$34,021,284
	Total Impact	\$151,615,622	1,200	\$88,227,704	\$81,810,211

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-18. Alt 2A Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$63,830,000	700	\$53,582,871	\$28,049,173
463	Environmental and other technical consulting services	\$975,798	10	\$706,289	\$636,537
470	Office administrative services	\$3,928,000	60	\$3,143,175	\$1,512,218
544	* Employment and payroll of federal govt, non-military	\$29,460,000	100	\$20,172,262	\$29,460,000
	Direct Impact	\$98,193,798	900	\$77,604,597	\$59,657,928
	Secondary Impact	\$107,074,497	600	\$36,309,761	\$61,251,322
	Total Impact	\$205,268,294	1,500	\$113,914,358	\$120,909,250

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-19. Alt 2A Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0.	\$0	\$0
56	Construction of other new nonresidential structures	\$63,830,000	700	\$53,582,871	\$28,774,772
463	Environmental and other technical consulting services	\$980,964	10	\$767,930	\$680,323
470	Office administrative services	\$3,928,000	60	\$4,181,750	\$1,784,665
544	* Employment and payroll of federal govt, non-military	\$29,460,000	100	\$21,110,452	\$29,460,001
	Direct Impact	\$98,198,964	900	\$79,643,003	\$60,699,761
	Secondary Impact	\$202,012,907	900	\$62,982,097	\$109,105,041
	Total Impact	\$300,211,870	1,800	\$142,625,100	\$169,804,802

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2A, ALBANY MSA PROJECTS are estimated to be \$98.2 million. Of this total expenditure, \$90 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Albany MSA expenditures \$98.2 million support a total of 1,200 full-time equivalent jobs, \$88 million in labor income, \$82 million in the value added, and \$152 million in economic output in the local impact area. Nationally, these expenditures support 1,800 full-time equivalent jobs, \$143 million in labor income, \$170 million in the value added, and \$300 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 2A – Eugene MSA Projects

Table 1-20. Alt 2A Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$281,905,000	3,100	\$215,775,070	\$113,192,669
463	Environmental and other technical consulting services	\$4,089,844	40	\$2,525,752	\$2,353,231
470	Office administrative services	\$13,011,000	200	\$10,305,456	\$5,266,384
544	* Employment and payroll of federal govt, non-military	\$97,582,500	500	\$66,818,048	\$97,582,498
	Direct Impact	\$396,588,344	3,800	\$295,424,325	\$218,394,781
	Secondary Impact	\$361,045,191	2,100	\$123,142,252	\$209,807,960
	Total Impact	\$757,633,535	5,900	\$418,566,577	\$428,202,741

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-21. Alt 2A Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$281,905,000	3,100	\$236,648,587	\$123,879,088
463	Environmental and other technical consulting services	\$4,309,608	50	\$3,119,324	\$2,811,262
470	Office administrative services	\$17,348,000	200	\$13,881,824	\$7,021,845
544	* Employment and payroll of federal govt, non-military	\$130,110,000	600	\$89,090,731	\$130,110,000
	Direct Impact	\$433,672,608	4,000	\$342,740,466	\$263,822,196
	Secondary Impact	\$472,935,791	2,500	\$160,361,948	\$270,516,277
	Total Impact	\$906,608,399	6,500	\$503,102,414	\$534,338,473

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-22. Alt 2A Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$281,905,000	3,100	\$236,648,587	\$127,083,694
463	Environmental and other technical consulting services	\$4,332,423	50	\$3,391,562	\$3,004,646
470	Office administrative services	\$17,348,000	200	\$18,468,685	\$7,881,967
544	* Employment and payroll of federal govt, non-military	\$130,110,000	600	\$93,234,245	\$130,110,003
	Direct Impact	\$433,695,423	4,000	\$351,743,080	\$268,080,309
	Secondary Impact	\$892,189,386	4,000	\$278,160,238	\$481,862,079
	Total Impact	\$1,325,884,809	8,000	\$629,903,318	\$749,942,388

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2A, EUGENE MSA PROJECTS are estimated to be \$433.7 million. Of this total expenditure, \$397 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures \$433.7 million support a total of 5,900 full-time equivalent jobs, \$419 million in labor income, \$428 million in the value added, and \$758 million in economic output in the local impact area. Nationally, these expenditures support 8,000 full-time equivalent jobs, \$630 million in labor income, \$750 million in the value added, and \$1.3 billion in economic output.

1.7 ALTERNATIVE 2B/ 5 - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 2B - Salem MSA Projects

Table 1-23. Alt 2B/ 5 Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$264,036,867
463	Environmental and other technical consulting services	\$7,117,508	70	\$5,042,390	\$4,545,258
470	Office administrative services	\$29,469,000	400	\$25,176,169	\$10,297,445
544	* Employment and payroll of federal govt, non-military	\$221,017,500	1,100	\$151,338,178	\$221,017,500
	Direct Impact	\$896,099,008	8,500	\$722,391,497	\$499,897,070
	Secondary Impact	\$758,673,235	4,400	\$248,645,409	\$429,315,413
	Total Impact	\$1,654,772,243	13,000	\$971,036,906	\$929,212,483

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-24. Alt 2B/ 5 Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$280,577,424
463	Environmental and other technical consulting services	\$9,760,958	90	\$7,065,049	\$6,367,311
470	Office administrative services	\$39,292,000	500	\$33,568,225	\$15,126,800
544	* Employment and payroll of federal govt, non-military	\$294,690,000	1,500	\$201,784,241	\$294,690,000
	Direct Impact	\$982,237,958	9,100	\$783,252,275	\$596,761,535
	Secondary Impact	\$1,071,072,079	5,700	\$363,208,534	\$612,700,344
	Total Impact	\$2,053,310,037	14,700	\$1,146,460,809	\$1,209,461,879

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-25. Alt 2B/ 5 Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$638,495,000	7,000	\$540,834,760	\$287,835,629
463	Environmental and other technical consulting services	\$9,812,633	90	\$7,681,650	\$6,805,311
470	Office administrative services	\$39,292,000	500	\$41,830,273	\$17,852,101
544	* Employment and payroll of federal govt, non-military	\$294,690,000	1,500	\$211,169,007	\$294,690,006
	Direct Impact	\$982,289,633	9,100	\$801,515,691	\$607,183,047
	Secondary Impact	\$2,020,746,215	8,900	\$630,013,378	\$1,091,383,722
	Total Impact	\$3,003,035,849	18,000	\$1,431,529,069	\$1,698,566,769

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2B and ALTERNATIVE 5, SALEM MSA PROJECTS are estimated to be \$982.3 million. Of this total expenditure, \$896 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$982.3 million support a total of 13,000 full-time equivalent jobs, \$971 million in labor income, \$929 million in value added, and \$1.7 billion in economic output in the local impact area. Nationally, these expenditures support 18,000 full-time equivalent jobs, \$1.4 billion in labor income, \$1.7 billion in value added and \$3 billion in economic output in the nation.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 2B/ 5 - Albany MSA Projects

Table 1-26. Alt 2B / 5 Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$63,829,999	700	\$50,265,006	\$24,391,892
463	Environmental and other technical consulting services	\$762,473	8	\$495,894	\$450,997
470	Office administrative services	\$2,946,000	40	\$2,351,151	\$851,039
544	* Employment and payroll of federal govt, non-military	\$22,095,000	90	\$15,129,195	\$22,094,999
	Direct Impact	\$89,633,472	900	\$68,241,247	\$47,788,928
	Secondary Impact	\$61,982,150	400	\$19,986,457	\$34,021,284
	Total Impact	\$151,615,622	1,200	\$88,227,704	\$81,810,211

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-27. Alt 2B/ 5 Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$63,830,000	700	\$53,582,871	\$28,049,173
463	Environmental and other technical consulting services	\$975,798	10	\$706,289	\$636,537
470	Office administrative services	\$3,928,000	60	\$3,143,175	\$1,512,218
544	* Employment and payroll of federal govt, non-military	\$29,460,000	100	\$20,172,262	\$29,460,000
	Direct Impact	\$98,193,798	900	\$77,604,597	\$59,657,928
	Secondary Impact	\$107,074,497	600	\$36,309,761	\$61,251,322
	Total Impact	\$205,268,294	1500	\$113,914,358	\$120,909,250

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-28. Alt 2B/ 5 Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$63,830,000	700	\$53,582,871	\$28,774,772
463	Environmental and other technical consulting services	\$980,964	10	\$767,930	\$680,323
470	Office administrative services	\$3,928,000	60	\$4,181,750	\$1,784,665
544	* Employment and payroll of federal govt, non-military	\$29,460,000	100	\$21,110,452	\$29,460,001
	Direct Impact	\$98,198,964	900	\$79,643,003	\$60,699,761
	Secondary Impact	\$202,012,907	900	\$62,982,097	\$109,105,041
	Total Impact	\$300,211,870	1,800	\$142,625,100	\$169,804,802

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2B and ALTERNATIVE 5, ALBANY MSA PROJECTS are estimated to be \$98.2 million. Of this total expenditure, \$90 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the expenditures \$98.2 million support a total of 1,200 full-time equivalent jobs, \$88 million in labor income, \$82 million in the value added, and \$152 million in economic output in the local impact area. Nationally, these expenditures support 1,800 full-time equivalent jobs, \$143 million in labor income, \$170 million in the value added, and \$300 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 2B/ 5 – Eugene MSA Projects

Table 1-29. Alt 2B/5 Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$243,100,000	2,700	\$186,073,037	\$97,611,386
463	Environmental and other technical consulting services	\$3,526,866	40	\$2,178,075	\$2,029,302
470	Office administrative services	\$11,220,000	100	\$8,886,882	\$4,541,451
544	* Employment and payroll of federal govt, non-military	\$84,150,000	400	\$57,620,359	\$84,149,998
	Direct Impact	\$341,996,866	3,300	\$254,758,353	\$188,332,138
	Secondary Impact	\$311,346,326	1,800	\$106,191,381	\$180,927,316
	Total Impact	\$653,343,192	5,100	\$360,949,734	\$369,259,454

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-30. Alt 2B/ 5 Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$243,100,000	2,700	\$204,073,257	\$106,826,791
463	Environmental and other technical consulting services	\$3,716,378	40	\$2,689,940	\$2,424,284
470	Office administrative services	\$14,960,000	200	\$11,970,952	\$6,055,269
544	* Employment and payroll of federal govt, non-military	\$112,200,000	500	\$76,827,147	\$112,200,000
	Direct Impact	\$373,976,378	3,500	\$295,561,297	\$227,506,343
	Secondary Impact	\$407,834,876	2,200	\$138,287,684	\$233,278,966
	Total Impact	\$781,811,255	5,600	\$433,848,981	\$460,785,310

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-31. Alt 2B/ 5 Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$243,100,000	2,700	\$204,073,257	\$109,590,273
463	Environmental and other technical consulting services	\$3,736,053	40	\$2,924,705	\$2,591,048
470	Office administrative services	\$14,960,000	200	\$15,926,420	\$6,796,993
544	* Employment and payroll of federal govt, non-military	\$112,200,000	500	\$80,400,294	\$112,200,002
	Direct Impact	\$373,996,053	3,500	\$303,324,676	\$231,178,316
	Secondary Impact	\$769,377,059	3,400	\$239,870,715	\$415,532,436
	Total Impact	\$1,143,373,111	6,900	\$543,195,391	\$646,710,752

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 2B and ALTERNATIVE 5, EUGENE MSA PROJECTS are estimated to be \$374 million. Of this total expenditure, \$342 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures \$374 million support a total of 5,100 full-time equivalent jobs, \$361 million in labor income, \$369 million in the value added, and \$653 million in economic output in the local impact area. Nationally, these expenditures support 6,900 full-time equivalent jobs, \$543 million in labor income, \$647 million in the value added, and \$1.1 billion in economic output.

1.8 ALTERNATIVE 3A - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 3A - Salem MSA Projects

Table 1-32. Alt 3A Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$994,540
463	Environmental and other technical consulting services	\$26,809	0	\$18,993	\$17,120
470	Office administrative services	\$111,000	2	\$94,830	\$38,787
544	* Employment and payroll of federal govt, non-military	\$832,500	4	\$570,041	\$832,500
	Direct Impact	\$3,375,309	30	\$2,721,010	\$1,882,947
	Secondary Impact	\$2,857,672	20	\$936,565	\$1,617,090
	Total Impact	\$6,232,981	50	\$3,657,576	\$3,500,037

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-33. Alt 3A Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$1,056,843
463	Environmental and other technical consulting services	\$36,766	0	\$26,612	\$23,984
470	Office administrative services	\$148,000	2	\$126,440	\$56,978
544	* Employment and payroll of federal govt, non-military	\$1,110,000	6	\$760,055	\$1,110,000
	Direct Impact	\$3,699,766	30	\$2,950,253	\$2,247,804
	Secondary Impact	\$4,034,375	20	\$1,368,087	\$2,307,840
	Total Impact	\$7,734,141	60	\$4,318,340	\$4,555,644

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-34. Alt 3A Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$1,084,182
463	Environmental and other technical consulting services	\$36,961	0	\$28,934	\$25,633
470	Office administrative services	\$148,000	2	\$157,561	\$67,243
544	* Employment and payroll of federal govt, non-military	\$1,110,000	6	\$795,404	\$1,110,000
	Direct Impact	\$3,699,961	30	\$3,019,045	\$2,287,058
	Secondary Impact	\$7,611,484	30	\$2,373,053	\$4,110,882
	Total Impact	\$11,311,445	70	\$5,392,098	\$6,397,941

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3A, SALEM MSA PROJECTS are estimated to be \$3.7 million. Of this total expenditure, \$3 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$3.7 million support a total of 50 full-time equivalent jobs, \$4 million in labor income, \$4 million in the value added, and \$6 million in economic output in the local impact area. More broadly, these expenditures support 70 full-time equivalent jobs, \$5 million in labor income, \$6 million in the value added, and \$11 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 3A - Albany MSA Projects

Table 1-35. Alt 3A Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$23,648,099	\$11,475,615
463	Environmental and other technical consulting services	\$358,720	4	\$233,303	\$212,180
470	Office administrative services	\$1,386,000	20	\$1,106,142	\$400,387
544	* Employment and payroll of federal govt, non-military	\$10,395,000	40	\$7,117,809	\$10,395,000
	Direct Impact	\$42,169,719	400	\$32,105,352	\$22,483,182
	Secondary Impact	\$29,160,645	200	\$9,402,997	\$16,005,940
	Total Impact	\$71,330,364	600	\$41,508,349	\$38,489,122

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-36. Alt 3A Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$25,209,049	\$13,196,251
463	Environmental and other technical consulting services	\$459,082	5	\$332,287	\$299,470
470	Office administrative services	\$1,848,000	30	\$1,478,765	\$711,451
544	* Employment and payroll of federal govt, non-military	\$13,860,000	60	\$9,490,412	\$13,860,000
	Direct Impact	\$46,197,082	400	\$36,510,513	\$28,067,172
	Secondary Impact	\$50,375,171	300	\$17,082,596	\$28,816,814
	Total Impact	\$96,572,253	700	\$53,593,109	\$56,883,985

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-37.Alt 3A Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$25,209,049	\$13,537,622
463	Environmental and other technical consulting services	\$461,512	5	\$361,287	\$320,071
470	Office administrative services	\$1,848,000	30	\$1,967,381	\$839,628
544	* Employment and payroll of federal govt, non-military	\$13,860,000	60	\$9,931,801	\$13,860,000
	Direct Impact	\$46,199,512	400	\$37,469,519	\$28,557,321
	Secondary Impact	\$95,040,695	400	\$29,631,088	\$51,330,477
	Total Impact	\$141,240,208	900	\$67,100,607	\$79,887,799

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3A, ALBANY MSA PROJECTS are estimated to be \$46.2 million. Of this total expenditure, \$42 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Albany MSA expenditures \$46.2 million support a total of 600 full-time equivalent jobs, \$42 million in labor income, \$38 million in the value added, and \$71 million in economic output in the local impact area. Nationally, these expenditures support 900 full-time equivalent jobs, \$67 million in labor income, \$80 million in the value added, and \$141 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 3A – Eugene MSA Projects

Table 1-38. Alt 3A Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$255,255,000	2,800	\$195,376,689	\$102,491,955
463	Environmental and other technical consulting services	\$3,703,209	40	\$2,286,979	\$2,130,767
470	Office administrative services	\$11,781,000	200	\$9,331,226	\$4,768,524
544	* Employment and payroll of federal govt, non-military	\$88,357,500	400	\$60,501,377	\$88,357,498
	Direct Impact	\$359,096,709	3,500	\$267,496,270	\$197,748,744
	Secondary Impact	\$326,913,642	1,900	\$111,500,951	\$189,973,682
	Total Impact	\$686,010,351	5,400	\$378,997,221	\$387,722,427

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-39. Alt 3A Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$255,255,000	2,800	\$214,276,920	\$112,168,130
463	Environmental and other technical consulting services	\$3,902,197	40	\$2,824,437	\$2,545,498
470	Office administrative services	\$15,708,000	200	\$12,569,500	\$6,358,032
544	* Employment and payroll of federal govt, non-military	\$117,810,000	600	\$80,668,504	\$117,810,000
	Direct Impact	\$392,675,197	3,700	\$310,339,361	\$238,881,661
	Secondary Impact	\$428,226,620	2,300	\$145,202,068	\$244,942,915
	Total Impact	\$820,901,817	5,900	\$455,541,430	\$483,824,575

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-40. Alt 3A Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$255,255,000	2,800	\$214,276,920	\$115,069,787
463	Environmental and other technical consulting services	\$3,922,856	40	\$3,070,940	\$2,720,600
470	Office administrative services	\$15,708,000	200	\$16,722,741	\$7,136,842
544	* Employment and payroll of federal govt, non-military	\$117,810,000	600	\$84,420,309	\$117,810,002
	Direct Impact	\$392,695,856	3,700	\$318,490,909	\$242,737,232
	Secondary Impact	\$807,845,911	3,600	\$251,864,251	\$436,309,058
	Total Impact	\$1,200,541,767	7,200	\$570,355,160	\$679,046,290

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3A, EUGENE MSA PROJECTS are estimated to be \$392.7 million. Of this total expenditure, \$359 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures \$392.7 million support a total of 5,400 full-time equivalent jobs, \$379 million in labor income, \$388 million in the value added, and \$686 million in economic output in the local impact area. Nationally, these expenditures support 7,200 full-time equivalent jobs, \$570 million in labor income, \$679 million in the value added, and \$1.2 billion in economic output.

1.9 ALTERNATIVE 3B - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 3B - Salem MSA Projects

Table 1-41. Alt 3B Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$994,540
463	Environmental and other technical consulting services	\$26,809	0	\$18,993	\$17,120
470	Office administrative services	\$111,000	2	\$94,830	\$38,787
544	* Employment and payroll of federal govt, non-military	\$832,500	4	\$570,041	\$832,500
	Direct Impact	\$3,375,309	30	\$2,721,010	\$1,882,947
	Secondary Impact	\$2,857,672	20	\$936,565	\$1,617,090
	Total Impact	\$6,232,981	50	\$3,657,576	\$3,500,037

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-42. Alt 3B Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$1,056,843
463	Environmental and other technical consulting services	\$36,766	0	\$26,612	\$23,984
470	Office administrative services	\$148,000	2	\$126,440	\$56,978
544	* Employment and payroll of federal govt, non-military	\$1,110,000	6	\$760,055	\$1,110,000
	Direct Impact	\$3,699,766	30	\$2,950,253	\$2,247,804
	Secondary Impact	\$4,034,375	20	\$1,368,087	\$2,307,840
	Total Impact	\$7,734,141	60	\$4,318,340	\$4,555,644

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-43. Alt 3B Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$2,405,000	30	\$2,037,146	\$1,084,182
463	Environmental and other technical consulting services	\$36,961	0	\$28,934	\$25,633
470	Office administrative services	\$148,000	2	\$157,561	\$67,243
544	* Employment and payroll of federal govt, non-military	\$1,110,000	6	\$795,404	\$1,110,000
	Direct Impact	\$3,699,961	30	\$3,019,045	\$2,287,058
	Secondary Impact	\$7,611,484	30	\$2,373,053	\$4,110,882
	Total Impact	\$11,311,445	70	\$5,392,098	\$6,397,941

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3B, SALEM MSA PROJECTS are estimated to be \$3.7 million. Of this total expenditure, \$3 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$3.7 million support a total of 50 full-time equivalent jobs, \$4 million in labor income, \$4 million in the value added, and \$6 million in economic output in the local impact area. Nationally, these expenditures support 70 full-time equivalent jobs, \$5 million in labor income, \$6 million in the value added, and \$11 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 3B - Albany MSA Projects

Table 1-44. Alt 3B Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$23,648,099	\$11,475,615
463	Environmental and other technical consulting services	\$358,720	4	\$233,303	\$212,180
470	Office administrative services	\$1,386,000	20	\$1,106,142	\$400,387
544	* Employment and payroll of federal govt, non-military	\$10,395,000	40	\$7,117,809	\$10,395,000
	Direct Impact	\$42,169,719	400	\$32,105,352	\$22,483,182
	Secondary Impact	\$29,160,645	200	\$9,402,997	\$16,005,940
	Total Impact	\$71,330,364	600	\$41,508,349	\$38,489,122

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-45. Alt 3B Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$25,209,049	\$13,196,251
463	Environmental and other technical consulting services	\$459,082	5	\$332,287	\$299,470
470	Office administrative services	\$1,848,000	30	\$1,478,765	\$711,451
544	* Employment and payroll of federal govt, non-military	\$13,860,000	60	\$9,490,412	\$13,860,000
	Direct Impact	\$46,197,082	400	\$36,510,513	\$28,067,172
	Secondary Impact	\$50,375,171	300	\$17,082,596	\$28,816,814
	Total Impact	\$96,572,253	700	\$53,593,109	\$56,883,985

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-46. Alt 3B Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$30,030,000	300	\$25,209,049	\$13,537,622
463	Environmental and other technical consulting services	\$461,512	5	\$361,287	\$320,071
470	Office administrative services	\$1,848,000	30	\$1,967,381	\$839,628
544	* Employment and payroll of federal govt, non-military	\$13,860,000	60	\$9,931,801	\$13,860,000
	Direct Impact	\$46,199,512	400	\$37,469,519	\$28,557,321
	Secondary Impact	\$95,040,695	400	\$29,631,088	\$51,330,477
	Total Impact	\$141,240,208	900	\$67,100,607	\$79,887,799

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3A, ALBANY MSA PROJECTS are estimated to be \$46.2 million. Of this total expenditure, \$42 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Albany MSA expenditures \$46.2 million support a total of 600 full-time equivalent jobs, \$42 million in labor income, \$38 million in the value added, and \$71 million in economic output in the local impact area. Nationally, these expenditures support 900 full-time equivalent jobs, \$67 million in labor income, \$80 million in the value added, and \$141 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 3B – Eugene MSA Projects

Table 1-47. Alt 3B Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$308,620,000	3400	\$236,223,203	\$123,919,482
463	Environmental and other technical consulting services	\$4,477,422	50	\$2,765,107	\$2,576,237
470	Office administrative services	\$14,244,000	200	\$11,282,063	\$5,765,458
544	* Employment and payroll of federal govt, non-military	\$106,830,000	500	\$73,150,124	\$106,829,998
	Direct Impact	\$434,171,422	4,200	\$323,420,497	\$239,091,174
	Secondary Impact	\$395,259,988	2,300	\$134,811,946	\$229,690,614
	Total Impact	\$829,431,410	6,500	\$458,232,443	\$468,781,788

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-48. Alt 3B Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$308,620,000	3,400	\$259,074,820	\$135,618,610
463	Environmental and other technical consulting services	\$4,718,012	50	\$3,414,929	\$3,077,674
470	Office administrative services	\$18,992,000	300	\$15,197,348	\$7,687,277
544	* Employment and payroll of federal govt, non-military	\$142,440,000	700	\$97,533,501	\$142,440,000
	Direct Impact	\$474,770,012	4,400	\$375,220,598	\$288,823,561
	Secondary Impact	\$517,754,009	2,700	\$175,558,803	\$296,152,014
	Total Impact	\$992,524,020	7,200	\$550,779,401	\$584,975,575

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-49. Alt 3B Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$308,620,000	3,400	\$259,074,820	\$139,126,903
463	Environmental and other technical consulting services	\$4,742,989	50	\$3,712,967	\$3,289,384
470	Office administrative services	\$18,992,000	300	\$20,218,888	\$8,628,909
544	* Employment and payroll of federal govt, non-military	\$142,440,000	700	\$102,069,678	\$142,440,003
	Direct Impact	\$474,794,989	4,400	\$385,076,353	\$293,485,199
	Secondary Impact	\$976,738,576	4,300	\$304,520,362	\$527,526,205
	Total Impact	\$1,451,533,565	8,800	\$689,596,715	\$821,011,404

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 3B, EUGENE MSA PROJECTS are estimated to be \$474.8 million. Of this total expenditure, \$434 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures \$474.8 million support a total of 6,500 full-time equivalent jobs, \$458 million in labor income, \$469 million in the value added, and \$829 million in economic output in the local impact area. Nationally, these expenditures support 8,800 full-time equivalent jobs, \$690 million in labor income, \$821 in the value added, and \$1.5 billion in economic output.

1.10 ALTERNATIVE 4 - REGIONAL EFFECTS OF PROPOSED CONSTRUCTION SPENDING

Alt 4 - Salem MSA Projects

Table 1-50. Alt 4 Salem MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$265,730,272
463	Environmental and other technical consulting services	\$7,163,156	70	\$5,074,730	\$4,574,409
470	Office administrative services	\$29,658,000	400	\$25,337,637	\$10,363,488
544	* Employment and payroll of federal govt, non-military	\$222,435,000	1,100	\$152,308,788	\$222,435,000
	Direct Impact	\$901,846,156	8,600	\$727,024,568	\$503,103,169
	Secondary Impact	\$763,539,000	4,400	\$250,240,102	\$432,068,836
	Total Impact	\$1,665,385,157	13,000	\$977,264,670	\$935,172,005

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-51. Alt 4 Salem MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$282,376,912
463	Environmental and other technical consulting services	\$9,823,560	90	\$7,110,360	\$6,408,148
470	Office administrative services	\$39,544,000	600	\$33,783,516	\$15,223,816
544	* Employment and payroll of federal govt, non-military	\$296,580,000	1,500	\$203,078,388	\$296,580,000
	Direct Impact	\$988,537,560	9,100	\$788,275,679	\$600,588,877
	Secondary Impact	\$1,077,941,421	5,700	\$365,537,979	\$616,629,910
	Total Impact	\$2,066,478,981	14,800	\$1,153,813,658	\$1,217,218,786

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-52. Alt 4 Salem MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$642,590,000	7,000	\$544,303,414	\$289,681,668
463	Environmental and other technical consulting services	\$9,875,567	90	\$7,730,917	\$6,848,957
470	Office administrative services	\$39,544,000	600	\$42,098,552	\$17,966,596
544	* Employment and payroll of federal govt, non-military	\$296,580,000	1,500	\$212,523,344	\$296,580,006
	Direct Impact	\$988,589,567	9,100	\$806,656,227	\$611,077,227
	Secondary Impact	\$2,033,706,310	9,000	\$634,053,981	\$1,098,383,332
	Total Impact	\$3,022,295,877	18,100	\$1,440,710,208	\$1,709,460,560

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 4, SALEM MSA PROJECTS are estimated to be \$988.6 million. Of this total expenditure, \$902 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (SALEM MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Salem MSA expenditures \$988.6 million support a total of 13,000 full-time equivalent jobs, \$977 million in labor income, \$935 million in the value added, and \$1.7 billion in economic output in the local impact area. Nationally, these expenditures support 18,100 full-time equivalent jobs, \$1.4 billion in labor income, \$1.7 billion in value added, and \$3 billion in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 4 - Albany MSA Projects

Table 1-53. Alt 4 Albany MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$45,369,999	500	\$35,728,080	\$17,337,618
463	Environmental and other technical consulting services	\$541,962	6	\$352,479	\$320,566
470	Office administrative services	\$2,094,000	30	\$1,671,184	\$604,914
544	* Employment and payroll of federal govt, non-military	\$15,705,000	70	\$10,753,746	\$15,704,999
	Direct Impact	\$63,710,961	600	\$48,505,489	\$33,968,097
	Secondary Impact	\$44,056,559	300	\$14,206,260	\$24,182,134
	Total Impact	\$107,767,520	900	\$62,711,749	\$58,150,232

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-54. Alt 4 Albany MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$45,370,000	500	\$38,086,399	\$19,937,192
463	Environmental and other technical consulting services	\$693,591	7	\$502,026	\$452,447
470	Office administrative services	\$2,792,000	40	\$2,234,151	\$1,074,876
544	* Employment and payroll of federal govt, non-military	\$20,940,000	100	\$14,338,328	\$20,940,000
	Direct Impact	\$69,795,591	700	\$55,160,905	\$42,404,515
	Secondary Impact	\$76,107,942	400	\$25,808,771	\$43,537,091
	Total Impact	\$145,903,533	1,100	\$80,969,676	\$85,941,606

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-55. Alt 4 Albany MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$45,370,000	500	\$38,086,399	\$20,452,944
463	Environmental and other technical consulting services	\$697,263	7	\$545,841	\$483,570
470	Office administrative services	\$2,792,000	40	\$2,972,364	\$1,268,530
544	* Employment and payroll of federal govt, non-military	\$20,940,000	100	\$15,005,189	\$20,940,000
	Direct Impact	\$69,799,263	700	\$56,609,792	\$43,145,044
	Secondary Impact	\$143,589,622	600	\$44,767,315	\$77,551,241
	Total Impact	\$213,388,886	1,300	\$101,377,108	\$120,696,285

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 4, ALBANY MSA PROJECTS are estimated to be \$69.8 million. Of this total expenditure, \$64 million will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (ALBANY MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Albany MSA expenditures \$69.8 million support a total of 900 full-time equivalent jobs, \$63 million in labor income, \$58 million in the value added, and \$108 million in economic output in the local impact area. Nationally, these expenditures support 1,300 full-time equivalent jobs, \$101 million in labor income, \$121 million in the value added, and \$213 million in economic output.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Alt 4 – Eugene MSA Projects

Table 1-56. Alt 4 Eugene MSA Local Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$984,360,000	10,900	\$753,446,542	\$395,247,816
463	Environmental and other technical consulting services	\$14,280,977	200	\$8,819,456	\$8,217,045
470	Office administrative services	\$45,432,000	600	\$35,984,742	\$18,389,235
544	* Employment and payroll of federal govt, non-military	\$340,740,000	1,700	\$233,316,235	\$340,739,993
	Direct Impact	\$1,384,812,977	13,300	\$1,031,566,976	\$762,594,089
	Secondary Impact	\$1,260,702,877	7,400	\$429,989,915	\$732,610,502
	Total Impact	\$2,645,515,854	20,800	\$1,461,556,891	\$1,495,204,591

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

Table 1-57. Alt 4 Eugene MSA State Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$984,360,000	10,900	\$826,332,997	\$432,562,812
463	Environmental and other technical consulting services	\$15,048,351	200	\$10,892,100	\$9,816,406
470	Office administrative services	\$60,576,000	800	\$48,472,755	\$24,518,981
544	* Employment and payroll of federal govt, non-military	\$454,320,000	2,200	\$311,088,318	\$454,320,000
	Direct Impact	\$1,514,304,351	14,100	\$1,196,786,170	\$921,218,199
	Secondary Impact	\$1,651,404,109	8,700	\$559,954,194	\$944,592,692
	Total Impact	\$3,165,708,459	22,900	\$1,756,740,364	\$1,865,810,891

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

*Willamette Valley System Operations and Maintenance
Final Environmental Impact Statement*

Table 1-58. Alt 4 Eugene MSA U.S. Impacts

IMPLAN Sectors	Industries	Output	Jobs*	Labor Income	Value Added
	Direct Impacts				
19	Support activities for agriculture and forestry	\$0	0	\$0	\$0
56	Construction of other new nonresidential structures	\$984,360,000	10,900	\$826,332,997	\$443,752,699
463	Environmental and other technical consulting services	\$15,128,018	200	\$11,842,707	\$10,491,666
470	Office administrative services	\$60,576,000	800	\$64,489,225	\$27,522,368
544	* Employment and payroll of federal govt, non-military	\$454,320,000	2,200	\$325,556,698	\$454,320,009
	Direct Impact	\$1,514,384,018	14,100	\$1,228,221,628	\$936,086,742
	Secondary Impact	\$3,115,359,940	13,800	\$971,283,986	\$1,682,573,051
	Total Impact	\$4,629,743,957	27,900	\$2,199,505,614	\$2,618,659,793

* Jobs are presented in full-time equivalence (FTE) and rounded to nearest 100.

The expenditures associated with implementation of the ALTERNATIVE 4, EUGENE MSA PROJECTS are estimated to be approximately \$1.5 billion. Of this total expenditure, \$1.4 billion will be captured within the local impact area. The remainder of the expenditures will be captured within the state impact area and the nation. These direct expenditures generate additional economic activity, often called secondary or multiplier effects. The direct and secondary impacts are measured in output, jobs, labor income, and value added as summarized in the following tables. The regional economic effects are shown for the local, state, and national impact areas. Figure SECTION 1.2 ECONOMIC IMPACT AREAS: LOCAL (EUGENE MSA), STATE (OR), NATION (US) highlights the local area in green. In summary, the Eugene MSA expenditures of \$1.5 billion support a total of 20,800 full-time equivalent jobs, \$1.5 billion in labor income, \$1.5 billion in the value added, and \$2.6 billion in economic output in the local impact area. Nationally, these expenditures support 27,900 full-time equivalent jobs, \$2.2 billion in labor income, \$2.6 billion in the value added, and \$4.6 billion in economic output.

1.11 CONCLUSION

In its entirety, this RED evaluation demonstrates the regional economic activity that would be supported by the proposed actions of the Willamette Valley System Operations and Maintenance Draft Programmatic Environmental Impact Statement, during construction and in the long-term by way its continued operation and maintenance. Regional economic activity (impacts and contributions) is measured as economic output (sales), jobs, income, and value added. Estimates were provided for three levels of geographic impact area: local, state and national. All dollar values in this document are presented in fiscal year 2025 prices and job estimates are presented as full-time equivalence.