Program Endorsement Brief:
Shasta College: Sustainable Landscape Certificate
North/Far North Center of Excellence, February 2019

INTRODUCTION

Shasta College is considering a new Sustainable Landscape Certificate. This program is Model Curriculum within the C-ID systems and is supported by the California Landscape Contractors Association, the International Arborist Association, and the National Association of Landscape Professionals. The proposed program would prepare completers for leadership roles within the landscape industry and includes skills required for exam preparation for up to five industry certifications. This report provides a brief overview of labor market demand and supply for related occupations in the North/Far North regions and the sub-region comprising Shasta, Tehama, and Trinity counties.

Key findings include:

- Demand for workers in occupations related to landscaping is high throughout the North/Far North region.
- Wages for jobs in the landscaping industry are low compared to the living wage in Shasta County for a one adult, one child household.
- In the Far North region, three community colleges conferred an average of 12 Associate degrees and 11 certificates annually related to sustainable landscaping.

Findings in this report were determined using labor market data from EMSI and Burning Glass. Education supply data is sourced from the Community College Chancellor's Office MIS via Datamart and Launchboard.

This report contains the following sections:

- Occupational demand
- Wages and job postings
- Educational attainment and supply, and
- Findings and recommendations

OCCUPATIONAL DEMAND

The following Standard Occupational Classification (SOC) codes were analyzed in relation to the proposed program[1]:

37-1012.00 - First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.
> **Sample of reported job titles:** Field Manager, Golf Course Superintendent, Grounds Crew Supervisor, Grounds Foreman, Grounds Maintenance Supervisor, Grounds Manager, Grounds Supervisor, Groundskeeper Supervisor, Landscape Manager, Landscape Supervisor

37-2021.00 - Pest Control Workers
Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.
> **Sample of reported job titles:** Certified Pest Control Technician, Commercial Pest Control Technician, Exterminator, Pest Control Applicator, Pest Control Chemical Technician, Pest Control Operator, Pest Control Technician, Pest Technician, Residential Pest Control Technician, Termite Technician

37-3011.00 - Landscaping and Groundskeeping Workers
Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.
> **Sample of reported job titles:** Gardener, Greenskeeper, Grounds Maintenance Worker, Grounds Person, Grounds Worker, Grounds/Maintenance Specialist, Groundskeeper, Landscape Specialist, Landscape Technician, Outside Maintenance Worker

37-3013.00 - Tree Trimmers and Pruners
Using sophisticated climbing and rigging techniques, cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, hand pruners, clippers, and power pruners. Works off the ground in the tree canopy and may use truck-mounted lifts.
> **Sample of reported job titles:** Arborist, Climber, Ground Worker, Groundsman, Laborer, Line Clearance Foreman, Plant Health Care Technician, Tree Climber, Tree Trimmer, Trimmer

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[1] https://www.onetonline.org

Exhibit 1 summarizes job trends per the SOC codes in Shasta, Tehama, and Trinity counties, the 15-county Far North region, and the 22-county North/Far North region.

Exhibit 1: Employment and projected occupational demand[2]

Occupation	SOC	2008 Jobs	2018 Jobs	2023 Jobs	2018-23 Jobs % Change	Annual Openings
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	143	129	137	6%	14
Pest Control Workers	37-2021	79	107	117	9%	17
Landscaping and Groundskeeping Workers	37-3011	986	1,046	1,128	8%	145
Tree Trimmers and Pruners	37-3013	46	59	64	8%	8
Shasta, Tehama, and Trinity Counties	**TOTAL**	**1,254**	**1,341**	**1,446**	**8%**	**184**
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	614	528	561	6%	57
Pest Control Workers	37-2021	248	312	340	9%	50
Landscaping and Groundskeeping Workers	37-3011	4,514	4,612	4,950	7%	633
Tree Trimmers and Pruners	37-3013	291	334	356	7%	45
15-County Far North Region	**TOTAL**	**5,667**	**5,786**	**6,207**	**7%**	**785**
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	2,041	1,785	1,904	7%	196
Pest Control Workers	37-2021	930	1,310	1,493	14%	226
Landscaping and Groundskeeping Workers	37-3011	16,400	16,961	18,261	8%	2,339
Tree Trimmers and Pruners	37-3013	960	1,135	1,213	7%	154
22-County North/Far North Region	**TOTAL**	**20,311**	**21,191**	**22,871**	**8%**	**2,915**

Exhibit 2 shows the percentage change in number of jobs between 2008 through 2018 and occupational projections from 2018 through 2023. The rate of change is indexed to the total number of jobs in 2008 as the base year and compares Shasta, Tehama, and Trinity counties, the 15-county North region, and the 22-county North/Far North region.

**Exhibit 2: Rate of change for selected occupations[3]**

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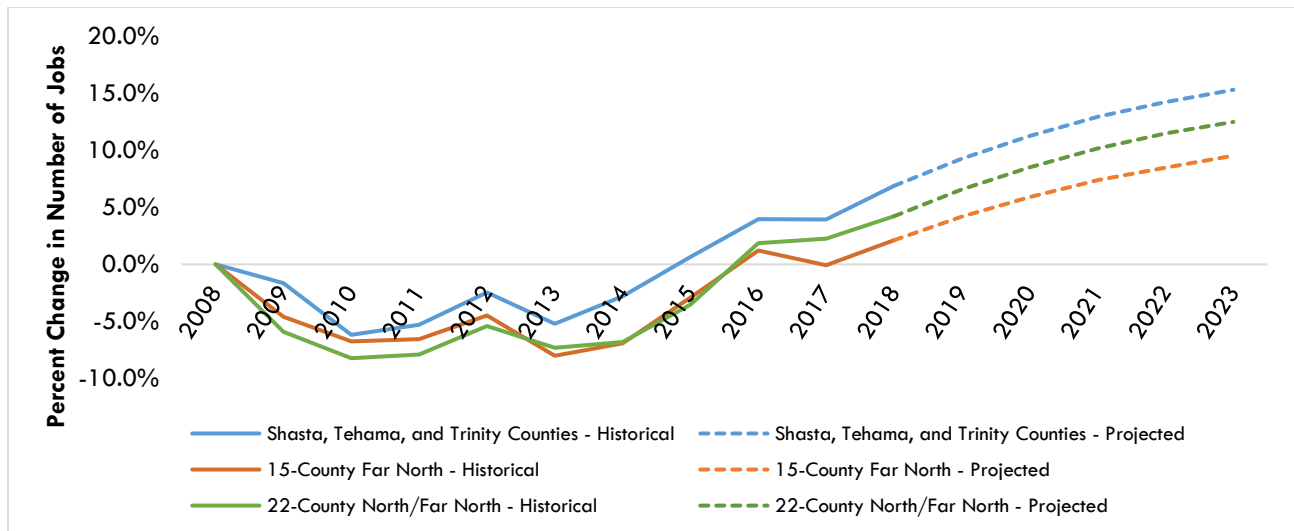
[2] Emsi 2019.1; QCEW Employees, Non-QCEW Employees and Self-Employed. The 15-county Far North region includes Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama and Trinity. The 22-county North/Far North region includes the aforementioned counties as well as El Dorado, Placer, Nevada, Sacramento, Sutter, Yolo and Yuba.

[3] Ibid.

WAGES AND JOB POSTINGS

Exhibit 3 displays hourly wages for the selected occupations in the North/Far North and Far North regions compared to the Shasta, Tehama, and Trinity county sub-region. The average living wage for the sub-region for a one-adult, one-child household is $24.95. The chart highlights the difference between the median hourly wages of the representative occupations.

Exhibit 3: Wages for selected occupations[4]
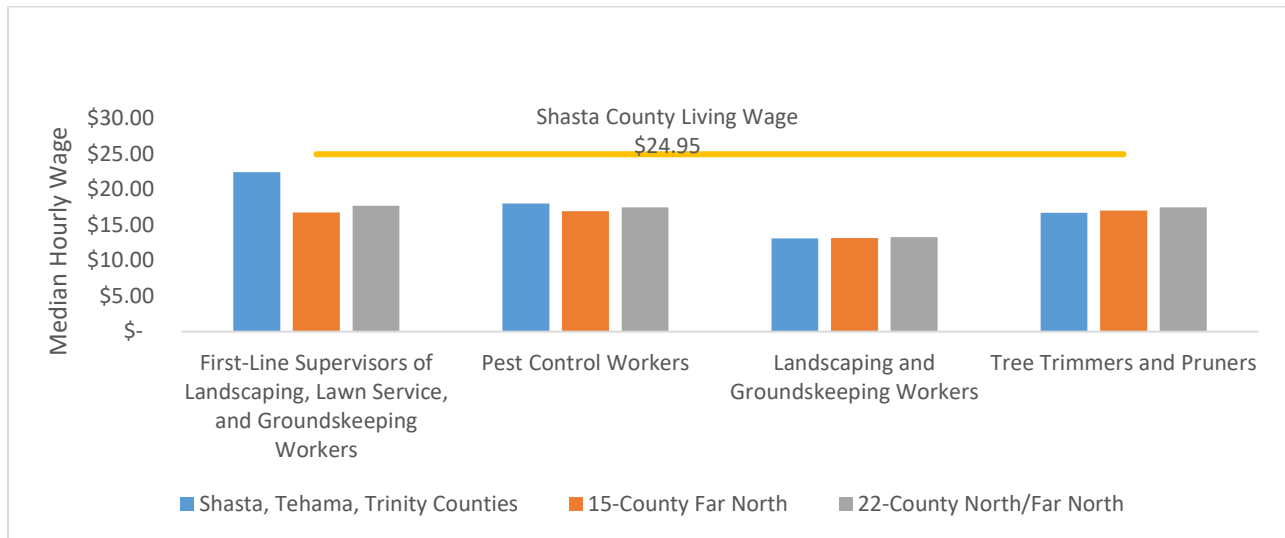
Burning Glass data for job postings for representative SOC codes identified a pool of 907 listings in the North/Far North region during the past year. The majority of job postings are located in the Greater Sacramento area. Exhibit 4 shows job posting trends since 2011 for each region.

Exhibit 4. Job posting trends for selected occupations[5]
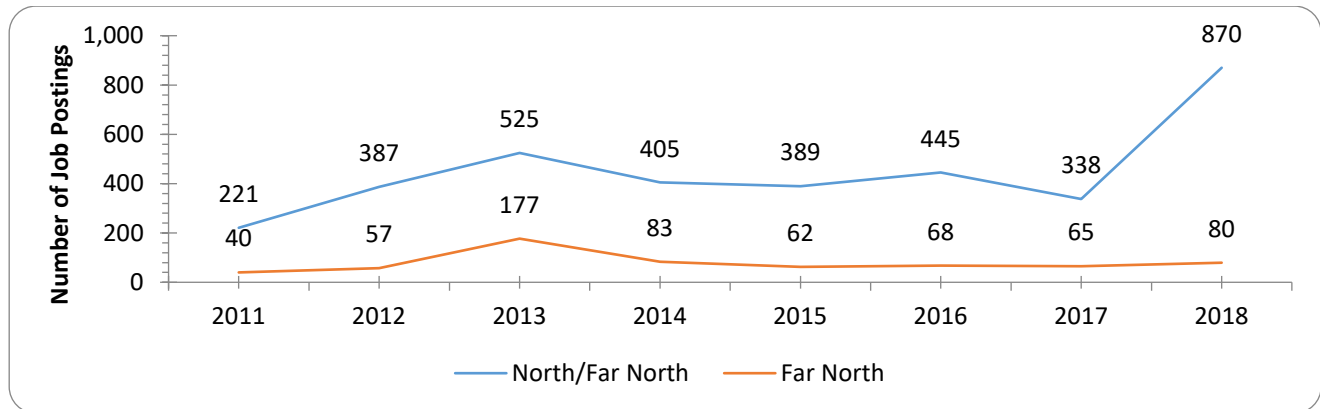
4

Exhibit 5 displays the skills most requested by employers in the 22-county North/Far North region for the selected occupations during the 12 month period of February, 2018 through January, 2019.

Exhibit 5. Top 10 skills desired in the selected occupations[6]

First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (71 postings, 61 indicate skill)		Pest Control Workers (232 postings, 162 indicate skill)	
Most requested skills	**% of postings**	**Most requested skills**	**% of postings**
Scheduling	33%	Customer Service	59%
Irrigation Systems	21%	Product Sales	44%
Customer Contact	18%	Customer Contact	40%
Occupational Health and Safety	18%	Calculation	35%
Oral Irrigation	18%	Basic Mathematics	33%
Quality Assurance and Control	18%	Sales	24%
Repair	18%	Appointment Setting	11%
Customer Service	15%	Pest Control Industry Knowledge	10%
Operations Management	15%	Sales Goals	10%
Supervisory Skills	15%	Fertilizers	9%

Landscaping and Groundskeeping Workers (510 postings, 330 indicate skill)		Tree Trimmer and Pruners (94 postings, 51 indicate skill)	
Most requested skills	**% of postings**	**Most requested skills**	**% of postings**
Repair	46%	Cardiopulmonary Resuscitation (CPR)	57%
Cleaning	24%	Herbicides	37%
Customer Service	20%	First Aid	33%
Debris and Litter Control	20%	Occupational Health and Safety	31%
Lifting Ability	19%	Commercial Driving	29%
Hand Tools	16%	Machinery	29%
Fertilizers	15%	Lift Trucks	26%
Machinery	15%	Performance Analysis and Appraisal	26%
Power Tools	15%	Repair	26%
Irrigation Systems	13%	Chain Saws	24%

EDUCATIONAL ATTAINMENT AND SUPPLY

At the national level, the typical education requirement for entry-level landscape occupations is only a high school education or some college. Exhibit 6 shows educational attainment percentages by occupation.

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[6] Ibid.

Exhibit 6. Typical educational attainment for selected occupations nationally[7]
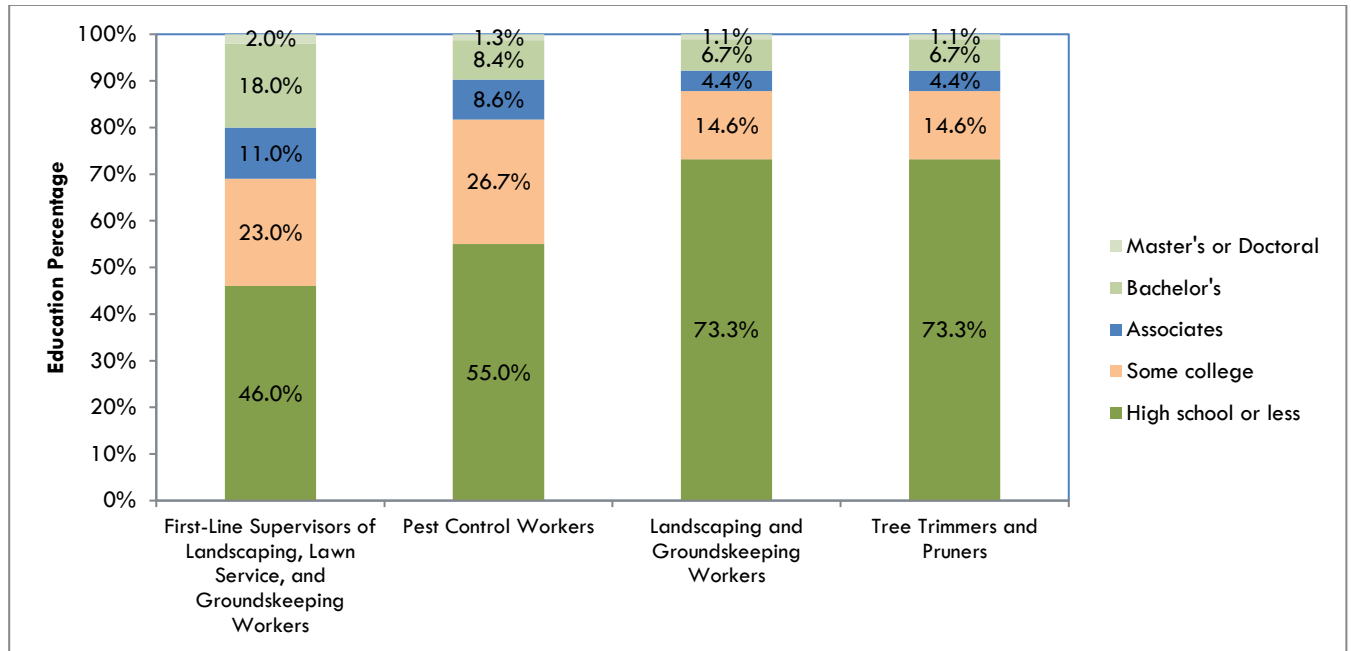
To estimate supply, this study used the Taxonomy of Programs (TOP) code that relates to sustainable landscaping, Horticulture 0109.00. There are three community colleges in the Far North region that awarded certificates or Associate degrees related to this TOP code during the previous three years.

Exhibits 7 shows the number of awards conferred by Far North community colleges during the past three academic years.

Exhibit 7: Annual awards conferred by Far North community colleges, 2015-2018[8]

	Certificate				Associate Degree			
	2015-16	2016-17	2017-18	3-Yr Avg	2015-16	2016-17	2017-18	3-Yr Avg
Horticulture (0109.00)								
Butte	1	4	2	2	5	3	6	5
Mendocino	0	0	0	0	9	4	2	5
Shasta	2	0	0	0	2	2	2	2
Landscape Design and Maintenance (0109.10)								
Butte	0	4	2	2	0	0	0	0
Mendocino	2	1	1	1	0	0	0	0
Shasta	0	0	0	0	0	0	0	0
Floriculture/Floristry (0109.20)								
Butte	2	5	2	3	0	0	0	0
Mendocino	0	0	0	0	0	0	0	0
Shasta	0	0	0	0	0	0	0	0
Nursery Technology (0109.30)								
Butte	0	0	0	0	0	0	0	0
Mendocino	2	0	3	2	0	0	0	0
Shasta	0	0	0	0	0	0	0	0
Total, TOP 0109	**9**	**14**	**10**	**11**	**16**	**9**	**10**	**12**

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[7] Current Population Survey, Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-17, https://www.bls.gov/emp/ep_table_111.htm.
[8] California Community Colleges Chancellor's Office Data Mart, 2/27/19.

FINDINGS AND RECOMMENDATION

- Demand for occupations in the landscaping industry is projected to be steady through 2023.
- Wages for jobs in landscaping are low in comparison to the living wage in Shasta County.
- Three community colleges conferred an average of 12 degrees and 11 certificates over the past three years. There are projected to be 785 annual openings for occupations related to landscaping through 2023.
- This simple gap analysis suggests significant undersupply.

COE Recommendation
☑ Move forward with program
☐ Program is not recommended
☐ Additional information needed

APPENDIX A: SOURCES

Sources used for data analysis purposes in this report include:

- U.S. Department of Labor/Employment and Training Administration (DOLETA) O*NET Online
- Burning Glass, Labor Insight/Jobs
- Economic Modeling Specialists, International (EMSI)
- California Employment Development Department, Labor Market Information Division (EDD, LMID)
- California Community Colleges Chancellor's Office Management Information Systems (MIS Datamart)
- California Community Colleges Chancellor's Office, Cal-PASS Plus LaunchBoard

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