

## WEBINAR | PRESENTATIONS

### Rocky Mountain Restoration Initiative (RMRI) January 27, 2021, 9:00 AM - 11:00 AM RMRI Workforce Capacity Webinar Meeting Summary - FINAL

#### ATTENDANCE

*Participants:* Ted Bilek, Rick Boontjer, Erin Burk, Donald Burr, Rich Edwards, Samuel Dosumu, Han-Sup Han, Randy Johnson, John Livingston, Kurt Mackes, Bethany Powell, Tim Reader, Becky Roe, Scott Segerstrom, Tara Umphries, Nathan Van Schaik, and Damon Vaughan

*Facilitation:* Molly Pitts and Samuel Wallace

#### RMRI INTRODUCTION

Molly Pitts, Colorado Timber Industry Association (CTIA), gave a brief introduction about RMRI. Her comments are summarized below.

- RMRI is a landscape-scale approach to increase the pace and scale of forest health treatments in three landscapes in Colorado. As landscapes across Colorado developed proposals for RMRI, RMRI partners recognized several cross-cutting issues that continued to come up. The cross-cutting issues were social license, biomass utilization, workforce development, and funding.
- The RMRI Workforce Capacity Subcommittee is focused on workforce development. Colorado's forestry industry is small but mighty. However, the forestry workforce is aging. The average age of a logger is 69, and the average age of a trucker is 70. There is a need to recruit younger people to get trained in this profession.
- The purpose of this webinar is to learn from other programs across the country that are developing or have developed educational programs to train people in forestry equipment operations.

#### *Clarifying Questions*

Meeting participants asked several clarifying questions about RMRI and the existing workforce in Colorado. Questions are indicated in italics with corresponding answers in plain text.

*Are there workforce training programs in Colorado?*

- There are several training programs in Colorado. Front Range Community College has an associate in forestry. Students in the program have access to heavy equipment operations, but their access is limited due to liability. Colorado State University has a forestry program as well. The program focuses more on training foresters than forestry technicians.
- Colorado does not yet have training programs comparable to Northern Main Community College or Shasta College. Colorado forestry businesses do a lot of on-the-job training, which is expensive.
- There is an opportunity to train employees leaving the coal mining industry to enter the forestry workforce.

#### NORTHERN ARIZONA UNIVERSITY (NAU) FOREST OPERATIONS TRAINING CENTER PRESENTATION

Dr. Han-Sup Han, NAU, presented on the development of the NAU Forest Operations Training Center. His comments are summarized below.

- In high-density stand conditions, trees are competing with each other for light, nutrients, and water. High-density stands contain dead and dying trees and create high fire risk situations. Forest thinning can help remove small-diameter trees to provide space for trees, reduce fire danger, and improve forest health.
- Logging operations today are highly mechanized. Contractors often use heavy equipment, like feller bunchers and skidders, to conduct forest treatments. The trees from these treatments are processed to produce sawlogs. Trucks are needed to deliver logs and wood chips to sawmills for utilization.
- The NAU Ecological Restoration Institute is conducting a survey on logging, trucking, and business contractors in three states: Arizona, Colorado, and New Mexico. One of the questions on the survey asks what challenges businesses face to their operations. Of the 50 responses so far, the biggest challenge for business operations is finding skilled workers, followed by high transportation costs. Additionally, 90% of businesses indicated they choose to train new employees internally because that is the only option available.
- More capacity is needed to achieve forest restoration objectives. The Four Forest Restoration Initiative (4FRI) is focused on carrying out landscape-scale forest restoration treatments on four national forests in Arizona, covering 2.5 million acres. Their goal is to achieve 50,000 acres of treatment per year. In 2017, they treated 12,450 acres, which required 222 full-time jobs. To reach their goal of 50,000 acres of treatment/year, partners will need somewhere between 800 to 1,000 jobs.
- The NAU Forest Operations Training Center is trying to train workers to help achieve landscape-scale restoration. The Training Center will offer programs to train forest machine operators, truck drivers, and equipment maintenance professionals.
- The Training Center's target audience includes displaced workers from closed coal-fired power plants and mining operations, retired and returned veterans, Native Americans, and high school graduates.
- The NAU Ecological Restoration Institute received \$3500,000 in grant funding from the Economic Development Administration to plan and develop the Training Center. Their planning activities include developing curriculum, establishing collaborative partnerships, developing strategies for financial sustainability, student recruitment, and job deployment.
- NAU's goal is to offer its training program by the fall of 2022. They will need to apply for an additional grant to implement the training program.
- The NAU School of Forestry is working with community colleges, the US Forest Service (USFS), Coconino County, equipment manufacturers, the Department of Defense, and the State of Arizona to establish the Training Center.

### ***Clarifying Questions***

Meeting participants asked several clarifying questions about the NAU Forest Operations Training Center. Questions are indicated in italics with corresponding answers in plain text.

*What is the expected class size for the NAU Forest Operations Training Center? Will students be enrolled on a semester or quarter basis?*

NAU does not have an answer to these questions yet, but they will be answering them as they develop the Center.

*What will the cost be for students to attend the Forest Operations Training Center?*

NAU does not have information available yet on cost.

*In the NAU survey, businesses identified that their largest barrier is "finding skilled workers." What do businesses consider as "skilled" workers?*

The word "skilled" was not defined in the survey. The survey also did not include a list of skill sets. NAU survey designers tried to find a balance in asking important questions without overburdening those being surveyed.

*Has NAU partnered with private contractors?*

NAU is working with local contractors to help inform the development of the program. The interactions between NAU and local contractors are informal, but NAU has been listening carefully to local contractors' comments and feedback.

*How is NAU working with Native American tribes?*

NAU has been connecting with tribal members in the region to talk about how they could effectively reach out to tribal communities and offer training opportunities.

*How is NAU planning on recruiting students to the Training Center?*

NAU is looking to train students from Arizona, Colorado, and New Mexico. In Colorado, they are looking to recruit people from the Southwest Region in particular. One potential recruitment strategy is to send instructors to local community colleges so that students do not need to travel to Flagstaff.

### **Group Discussion**

Meeting participants discussed the NAU Forestry Operations Training Center. Their comments are summarized below.

- Beyond the survey, businesses have anecdotally shared that the most frequently sought-after skills are equipment operations and truck driving.
- Many tribal members across Arizona attend NAU. With Peabody Coal closing on the Navajo Reservation, there are opportunities to reach out to displaced workers to join the forestry industry.
- The Economic Development Administration provided the \$350,000 grant to NAU in part to help local communities that have lost jobs from power plant closures.

### **NORTHERN MAINE COMMUNITY COLLEGE (NMCC) PRESENTATION**

Don Burr, NMCC, presented on their mechanized logging program. His comments are summarized below.

- The NMCC mechanized logging program has been offering training for five seasons. The program only runs in the summer. The NMCC program is focused on giving students foundational skills in the logging industry.
- To enroll in the program, students must have a high school diploma/GED, be at least 18, have a valid driver's license, have access to reliable transportation and lodging, and be able to study/work outside.
- The program lasts for 12 weeks. The first week of the program involves classroom instruction. During this portion of the training, students learn about safety, tree species, equipment responsibilities, and merchandising. The remaining 11 weeks are in the field and focused on equipment training. During the 11 weeks, students spend six hours operating equipment and two hours in the classroom. The two hours in the classroom are spent on GPS, wood lot management, best management practices, and merchandising training.
- NMCC and the Professional Logging Contractors of Maine (PLC) partnered to develop the mechanized logging operations program and curriculum.

- To fund the program, the PLC director went to the state legislator to advocate for the "Put ME to Work" program. The Put ME to Work program covered 50% of the cost to develop the mechanized logging operations program. Because industry provides equipment to the program, industry covers 75% of the cost to run the program, and the State of Maine covers the remaining 25%. Industry partners provide equipment, contract assistance, safety gear, and instructors. The State of Maine covers the cost of insurance, wages, and travel.
- The PLC represents 200 logging contractors in Maine. The NMCC program travels to different parts of the state, and at each location, they work with different local contractors to store and maintain equipment.
- Local equipment dealers (e.g., CAT/Weiler, Nortrax – John Deer, Daveco, Labonville Logging Supplies) lend their equipment to the program. NMCC borrows the equipment without charge so long as they insure and maintain the equipment. In return, equipment dealers get to bring contractors to demonstrate how the equipment works onsite.
- When partners first started the program, they talked a lot about risk. NMCC was particularly concerned about risk. Some of the strategies partners use to minimize risk include:
  - Giving instructors training in first aid and CPR
  - Installing gates to control access to the job site
  - Having five instructors to six pieces of equipment during the first six weeks of the program
  - Having five instructors to seven pieces of equipment during the last six weeks of the program
  - Only operating one processor at a time during the first six weeks of instruction
  - Giving a handheld radio to every instructor and student and having each instructor use a unique frequency to communicate
- The program's primary focus is on safety and the quality of tons produced, not on quantity.
- During the program, each student gets a week to operate one piece of equipment. They then rotate to operate a new piece of equipment. During the last three weeks of the program, students get to select which equipment they would like to operate, or if they have been hired, which equipment they will be using in their job. The program occurs in two shifts to ensure students have as much access to in-equipment practice as possible.
- One of the program's benefits is that students get to focus on how to operate equipment correctly and safely. Students that are trained on-the-job often focus on production rather than good habits.
- Don Burr serves as the primary contact for the program year-round to answer student and instructor questions. NMCC advertises the program via its website, radio interviews, and television commercials. They also partner with technical schools to recruit students.

### ***Clarifying Questions***

Meeting participants asked several clarifying questions about the NMCC mechanized logging program. Questions are indicated in italics with corresponding answers in plain text.

*What is the cost to students?*

The cost to the students for the course is nothing because of the Put ME to Work program. Students have to pay for food and lodging.

*How many applicants does NMCC receive each year?*

- On average, NMCC receives 50 applications.
- Once the reviewers have ensured the prospective student meets the program's minimum requirements, they invite them to an interview. The interview is treated like a job interview and usually involves two contractors and Don Burr. The goal of the interview is not to test

students on their knowledge of tree species; the goal of the interview is to make sure students have the desire and work ethic to be loggers. The interview is also a time for students to ask contractors questions that they may be too afraid to ask a potential employer.

- After the interview process, they invite sixteen people to join the program and create a waiting list if someone among those sixteen turns down the offer. Older applicants have a higher rate of accepting the invitation than younger candidates.

*What is the completion rate for the sixteen people in the program?*

The completion rate is around 80%. The students are more likely to leave the program after the interview process than during the actual program.

*How many women have gone through the program?*

Two women have gone through the program, and one of them is currently in the logging industry. The program encourages women to apply.

*Does NMCC administer a drug test for accepted students?*

NMCC administers a drug test before students arrive. They have had a couple of students rejected from the program because of the drug test. NMCC is upfront with applicants that they will be drug tested before starting the program.

*Do students finish with a certificate?*

Students finish the program with a certificate of completion and credentials through the State of Maine. Students also qualify for a lower worker's comp rate for two years after training. To maintain their credentials and lower worker's comp rate, they must complete eight hours of continuing education classes every two years.

*What is the starting wage for students out of the program?*

Starting wages can vary depending on what part of Maine a student wants to work. For example, students who work in Western or Eastern Maine have a higher starting wage than students who work in Central Maine. The starting wage is around \$15-\$20/hour.

*Do insurance companies provide a reduced insurance rate to contractors that hire a student from the mechanized logging program?*

Insurance companies do not provide a reduced insurance rate. The PLC works closely with insurance companies, so there may be an opportunity to talk with them about lowering insurance rates.

*Does the program re-capture revenue from their logging training operations?*

The mechanized logging program makes a deal with the landowner just like a contractor would. The landowner does not pay normal rates for the logs because the students ruin a lot of wood. The revenue from the landowners is used as a match for the Put ME to Work program funding.

*What is the marketing strategy for the mechanized logging program?*

NMCC presents at technical schools. They also run television commercials and rely on the word of mouth of contractors. There will normally be about five or six students each year that come from contractor referrals.

*Does the NMCC mechanized logging program offer any programs for students to earn their commercial driver's license?*

The NMCC does not offer opportunities for students to receive their commercial driver's license. A couple of students who have gone through the program had a commercial driver's license, which made them more marketable when they left the program. Student drivers in Maine are also not allowed to haul commercial loads, making it difficult to train them.

*What type of messaging does the NMMC program focus on in their television commercials?*

The television commercials show people working outdoors in the equipment. It explains that a logging career allows people to work independently and outside.

### **SHASTA COLLEGE HEAVY EQUIPMENT LOGGING OPERATIONS PRESENTATION**

Becky Roe, John Livingston, and Rick Boontjer, Shasta College, presented Shasta College's Heavy Equipment Logging Operations (HELO) certificate program. Their comments are summarized below.

#### *Program Overview*

- The presenters showed a YouTube video on the HELO certificate program, which can be found [here](#). The video is produced by CalFire, which provides funding for the program.
- The success of the HELO certificate program is dependent on industry partners. Without trade and industry association support, the program could not happen.
- Students graduate with a certificate awarded by the Community College Division of California Education. The goal of the program is to prepare students to join the workforce immediately after graduation.
- Contractors in California serve on the advisory committee for the program. The advisory committee meets with program instructors and administrators regularly to inspect equipment and make recommendations on which direction the program should be moving.
- Students take a drug test before they are enrolled in the program. They then have to take a federal drug test to earn their commercial license.

#### *Program Classes*

- The HELO certificate program lasts one year. The first semester of the program is 12 units, which is five classes in total. The first semester classes focus on building construction skills, equipment operations and maintenance, surveying, technical applications of mathematics and computer skills, and career planning. Students gain skills in welding, get practical experience in sawmills, and operate basic equipment on a six-acre campus training site moving dirt and logs. During the career planning class, students talk with contractors and businesses about how to get hired in various sectors (e.g., construction, logging, etc.).
- During the second semester, students take classes on truck driving, heavy logging equipment operations, and introduction to natural resources. Students can choose to earn their Class A or Class B license training; most students take Class B training. There is a great demand for truck drivers, so it is a good career opportunity to get students their truck-driving licenses. During the logging equipment operations class, students work in the woods with Sierra Pacific Industries to implement a timber harvest plan on their timber grounds. The introduction to natural resources focuses on teaching students tree species and basic operations.
- Shasta College is developing a first-of-its-kind, non-union apprenticeship program for logging and forest workers. The industry advisory committee developed a curriculum for on-the-job training. The apprenticeship program is designed to funnel students to

employers following graduation. Students gain a foundational skillset in the HELO certificate program, but they do not leave the program as experienced operators. The apprenticeship program is an important pipeline to move students from the certificate program to employment. Through the apprenticeship program, students will earn college credits while working onsite. The apprenticeship program is still pending approval; the public commenting period will end at the beginning of February.

- The HELO certificate program's heavy equipment operations class is similar to NMCC's program. One difference is that Shasta College owns the equipment that students operate, except the river-tired skidder, which John Deere donates annually. Shasta College purchased the rest of the equipment with grant funding. The equipment is brand new and has comfortable cabs. Students may not be working in equally comfortable cabs once they leave the program.
- The purpose of the logging operations class is to give students as much real-world experience as possible, which reduces training expenses for logging companies in the field. The class also helps filter students who decide they do not want to be loggers.
- Contractors will often come to the training site to help with instruction.
- The HELO certificate program will be acquiring two trucks that can haul logs to the local mill. There are three local mills located within 45 miles of Shasta College.
- The equipment operations class focuses on training safety and equipment maintenance and repairs. Students and instructors always have two-way radios.

#### *Program Future and Financial Sustainability*

- The HELO certificate program has gone through four semesters. The future vision for the program includes incorporating cut-to-length systems and mastication equipment. They are also identifying opportunities to include biomass utilization. They are also looking to expand articulation opportunities with partner colleges and universities; a regional approach to the training program can help alleviate costs. They are also looking to include infrared drone training and acquiring two electric log trucks. Lastly, they would like to build a facility out mass timber with dormitories.
- In California, a business has to be registered and licensed as a commercial timber operator to conduct commercial timber operations. One barrier for Shasta College in acquiring its commercial timber license was liability insurance. Industry and association partners were able to advocate for the Shasta College program and persuade insurance companies to issue liability insurance to Shasta College. Insurance companies were originally reticent to work with an educational institution on this project.
- The commercial license allows Shasta College to contract with landowners and generate revenue from the logs that students are harvesting. The revenue from the harvest goes back to the program. The revenue helps pay for operating costs, such as equipment maintenance, repair, and fuel, but the program cannot rely on that revenue indefinitely. Once Shasta College acquires two log trucks, they will be able to receive additional revenue for transportation.
- Shasta College launched the program with a \$3.2 million grant from CalFire, the California Climate Investment, and the Fall River Resource Conservation District. They had originally requested \$5 million but prioritized the items they needed to get the program started. The original \$3.2 million grant paid for instructor salaries, administrative staff, and equipment. The administrative staff helps support students who enroll in the program. The \$3.2 million also fund paraprofessional staff to support instructors onsite and maintain equipment.

- Since the initial grant funding, Shasta College has received \$500,000 for the apprenticeship program and \$1.8 million for the second phase of the program. The additional funding will help the program expand.
- Shasta College was competitive in receiving grant funding because they demonstrated their partnership with industry. Industry partners helped inform the development of the program, which is why the program is as successful as it is.

### ***Clarifying Questions***

Meeting participants asked several clarifying questions about Shasta College's HELO certificate program. Questions are indicated in italics with corresponding answers in plain text.

*Does the program offer basic fire training?*

Many students who go through the program will get jobs as fire equipment operators, but the program does not require students to go through fire classes, like the fire academy. Shasta College does offer onsite active fire training, so students do leave the program with some skills. They are also looking at opportunities to train students in high-tech drone technology.

*Do students have to start in the fall semester?*

Students can offer in fall or spring, and Shasta College offers limited classes during the summer. All classes can roll into associate or transfer degrees, such as an associate degree in industrial technology.

*Do students learn how to cost out the equipment so that they can have an idea on how to cost out a forestry operation?*

- The forestry equipment operations class partnered with students from the accounting to give accounting students experience in the industry. The idea of partnering students together is to inspire entrepreneurship. There are further opportunities to connect the forestry equipment operations class with marketing and business operation students.
- Students enrolled in the HELO certificate program focus on operations, and the goal of the instructors is to get them as much seat-time as possible.

*How do program administrators plan to upgrade equipment over time?*

The equipment is brand new, so hopefully, it will be usable as a teaching tool for some time. The equipment is also not used for full-scale production, so the equipment should last longer in the teaching environment. Students and paraprofessionals also regularly maintain the equipment.

*What attracts students to the program?*

- Traditionally, most people joined the logging industry because they knew someone, either a friend or family member, in the industry. Now, there is a lack of generational workers in the industry. About two-thirds of the enrolled students are not familiar with logging operations, and the remaining one-third have a family member in the industry. Many also come to the program to learn how to operate construction equipment.
- The average age of the student is around 30 years old. Many are trying to develop new careers, and some students were formerly incarcerated.

*What is the average number of students in each class?*

The current number of students enrolled in the spring program is 14, and the number of students in the fall semester was 12. In the spring of 2020, they had 21 students enrolled and were on the fast

trajectory for student enrollment. COVID impacted their enrollment rates. The completion rate for students in the logging operations class is 86%.

*Do students have to pass any tests before they get into the equipment?*

In the semester before students get into equipment, they take a pre-operations class. Instructors are learning how to better test students to make equipment operations safer. They are in the process of coming up with practical testing before they let students operate the equipment.