



School Name: Truckee Meadows Community College Street Address: 7000 Dandini Blvd. Reno, NV 89512

Website: <a href="http://www.tmcc.edu/">http://www.tmcc.edu/</a>

Sustainability webpage: https://www.tmcc.edu/diversity/sustainability

Facebook page: https://www.facebook.com/TMCCNV/

President Name: Dr. Karin Hilgersom

President Email Address: khilgersom@tmcc.edu

Phone Number: 775-673-7025

Lead Applicant Name (if different): Kreg Mebust Lead Applicant Email: kmebust@tmcc.edu

Phone Number: 775-378-1111

Level – Post-Secondary, School Type – Public, Demographics – Urban

District Name – Nevada System of Higher Education, Total Enrollment – 10,348

Percentage of students receiving financial aid – 49%

Graduation rate – 30% (IPEDS)

Greetings U.S. Department of Education,

In addition to this application and document, we have created the Truckee Meadows Community College, Green Ribbon Schools digital application. Our full application can be observed in the form of an online Canvas course.

If you would like to view in this format, please provide us with your Department of Education email address.

Please feel free to contact the Canvas Admin assisting with this process directly if you have any questions or concerns. Natalie Fisher, WebCollege Support Specialist, (775) 674-7505, webcollege@tmcc.edu.

On behalf of TMCC President Karin Hilgersom, Sustainability Program Director YeVonne Allen, Sustainability Faculty Advocate Kreg Mebust, and the entire TMCC Sustainability Champions Committee, we thank you for your time and welcome you to Truckee Meadows Community College.

### Supplemental Video Links

Sustainability Overview
Facilities Highlights
K-12 Education
Milkweed Project
Water Quality

https://youtu.be/F-PZhjUhiUk
https://youtu.be/JX3dYMyw40A
https://youtu.be/OXfsCi40JJw
https://youtu.be/N0Q7lUuO\_vA
https://youtu.be/I7ihoAwlAZg



### **TMCC Highlights and Summary**

Truckee Meadows Community College (TMCC) is a comprehensive community college located in Reno, Nevada, and is part of the Nevada System of Higher Education. The College serves more than 25,000 students each year in credit and non-credit programs at four educational sites and more than 20 community locations. TMCC is northern Nevada's jobs college, preparing qualified students for jobs in industries right here in Nevada. Offering academic and university transfer, occupational training, career enhancement workshops and classes just for fun, TMCC is the fastest growing college in northern Nevada.

TMCC is committed to responsible stewardship of resources and to demonstrating leadership in sustainable business practices, including, but not limited to, current best practices in building design and maintenance, transportation, and use of renewable and non-renewable resources to provide a healthy environment for students, faculty, staff, and visitors. Procedures and practices that provide environmental benefits, reduce dependency on non-renewable energy sources, and offer other resource conservation benefits resulting in cost savings and maintenance of a healthy workplace for students, faculty, staff, and visitors.

100% of TMCC energy service is now from renewable energy! Official history was made with TMCC as the 1st Institution in the Nevada System of Higher Education to achieve 100% Green Energy status.

TMCC excels in award winning "Community Service Learning" projects. The learning process infuses a human-factor with environmental issues. Architecture, Environmental Health Science and Environmental Science faculty are working with both public and private community members. Real world problem solving through the lens of sustainability has addressed social justice/equity of the homeless youth in our nation, interpretive nature trails, diminishing monarch butterfly populations, watershed studies on the effects of urban development on water quality, snow levels in the Sierra Nevada mountain ranges and a study on bacteriophages along the Truckee River for the Trout Unlimited and the Northern Nevada Sagebrush Chapter.

Prior to Fall 2019 semester, TMCC completed construction on a brand-new soccer field, the centerpiece of our new men's and women's soccer program. The event was attended by nearly 500 guests. Reno Mayor Hillary Schieve also spoke at the event, complementing the athletes on their dedication to both athletics and academics. She also announced that August 15, 2019 will be known as "TMCC Mighty Lizards Day" on behalf of the City of Reno. The 170,000 square recreational/soccer field includes a three-lane walking/running track and bleacher seating and is located just a short walk from our new 20,000 square foot Sports and Fitness Center. The center was designed and constructed with our environment in mind. With strong leadership, a eco-friendly facility equivalent to a LEED Silver rating just opened in Spring 2020. The facility features a full-size basketball/volleyball gymnasium, strength and conditioning room and locker rooms.

Students should be learning from the classroom rigors and be engaged with their community. Environmental service learning can be incorporated into nearly any subject matter. Benefits of service learning at TMCC has increased student retention, enhanced rapport between faculty and students, shared experiences of students create a strong cohort effect, furthered K-12 science standards and have addressed community needs.



### Pillar I: Reduce Environmental Impact & Costs

# 1.1 School has a clearly articulated energy conservation, energy efficiency and renewable energy policy that has achieved measurable outcomes.

TMCC Policy 5003 -Sustainability Policy

TMCC is committed to responsible stewardship of resources and to demonstrating leadership in sustainable business practices, including, but not limited to, current best practices in building design and maintenance, transportation, and use of renewable and non-renewable resources to provide a healthy environment for students, faculty, staff, and visitors.

Procedures and practices that provide environmental benefits, reduce dependency on non-renewable energy sources, and offer other resource conservation benefits resulting in cost savings and maintenance of a healthy workplace for students, faculty, staff, and visitors, will be implemented upon approval by the President and be communicated to the College community. Initiatives and Measurable Outcomes

NV Energy Green Energy Rider Program:

We are proud to announce that as of December 1, 2019, TMCC Energy is 100% "Green"! 100% of our energy service is now from renewable energy!

TMCC is the 1st Institution in the Nevada System of Higher Education to achieve 100% Green status! This achievement is also thanks to NV Energy's "NV GreenRider" Program to secure renewable energy credits.

Central Services has implemented a scan to email feature on the multi-function Xerox machines which has reduced the need for making paper copies of documents. Reducing paper waste. Information Technology is practicing energy-saving management strategies for all TMCC computers. Every computer is programmed to a low-power mode after a short period of time when not in use. For further energy savings, classroom computers will power down after not being used within a 30-minute period of time and all computers automatically shut down overnight. Retrofitting of our HVAC systems has occurred to help with making all of our campuses energy efficient. Lights and appliances with newer energy-saving models cuts the College's power bill, as well.In 2008 building temperatures were standardized for all TMCC facilities to a range of 68-76 degrees. TMCC replaces or retrofits appliances when they need replacement, and focus on replacing equipment with energy-efficient models.

WebCollege & Central Services Energy Savings: This department manages all online offerings, hybrid courses, and support faculty teaching on line. Online teaching can save energy in numerous ways such as 250,000 trip reductions, \$270 in gas savings per student, nearly one million photo copies not made

Benchmark Energy Use Conducted by NV Energy: The energy bench-marking report provided to TMCC by NV Energy states that the College is using less energy than other institutions in the same climate conditions, and has improved energy performance from November 2009-October 2014. TMCC consumed 61.9 kBtu per square foot, which falls below the median for similar building in our climate zone (i.e. 82.6 kBtu per square foot), and is less than the baseline model (Dec 2008-Nov 2009) of the study (i.e., 85.3 kBtu per square foot).

# 1.2 School has a clearly articulated greenhouse gas reduction policy that has achieved measurable outcomes.

TMCC's Renewable Energy Monitoring: Due to generous rebates from NV Energy, TMCC installed solar panels in 2012 and 2013 on the rooftops of the Vista and Sierra Buildings at no cost to the College. The arrays can be tracked on the Web for the amount of energy they produce. Online dashboards for solar arrays may also be viewed for the panels installed in 2009 at Applied Technology Center and in 2014 at Meadowood Center. These systems are used as education tools to provide hands-on training in the renewable energy program.

Monitoring programs associated with those installations include the following:



Dandini Wind Turbines, Dandini Solar Arrays, Meadowood Site Array, TMCC Applied Technology Center's Solar Array.

# 1.3 School has a clearly articulated alternative transportation policy that has achieved measurable outcomes.

ED-PASS Free Bus Pass Program: The Regional Transportation Commission (RTC) provides bus service to TMCC. With the new (2019) ED-PASS, students, faculty, and staff can use their TMCC ID to ride any bus route for free.

Electric Vehicle Charging Stations - TMCC has two Verdek Electric vehicle charging stations to serve its students, faculty, staff and visitors.

TMCC's student government is developing a carpooling bulletin board in Canvas so that students may connect with others interested in carpooling. On average, 18.7% of our student population carpool. On average, 20.6% of our faculty and staff carpool.

TMCC faculty and staff participate in the annual Bike to Work week held in May each year. To assist our daily commuters, TMCC deployed/installed a Bike Repair Station to enhance the biking experience of student, faculty, and staff members. The Bike Repair Station has a repair arm and tools necessary to perform basic bicycle repairs.

# 1.4 School has a clearly articulated water quality, efficiency and conservation policy that has achieved measurable outcomes.

Hydration Stations: TMCC has installed 13 Brita® Hydration Stations® in multiple locations. All units are compliant with Americans with Disabilities Act (ADA) requirements. Filters are replaced in each unit every 2,500 gallons. Northern Nevada has limited water resources, and stations will minimize the water that goes down the drain, in contrast to the use of a water fountain. Conserving water is another way that TMCC reduces the ecological footprint of the institution on the environment.

Landscape Design for Water Savings: Intentional, sustainable landscaping is a capstone to TMCC grounds. Because we are located in the high desert, total rain fall does not typically exceed 10 inches per year. Decomposed Granite is used as a maintenance approach to covering landscape beds. The plants growing in these environments lack the much-needed nutrients and microbial activity found in the organic soils. TMCC is currently replacing all DG areas with an Organic Soil Mulch. To date, approximately 2,000 sq. ft of has been replaced.

Our grass-cycling and leaf collection practice converts grass clippings to mulch and compost from planters. These decompose quickly, naturally infusing nitrogen and other materials into the soil. Water Savings: The organic soil mulch permits the soil to take up and hold water. This type of mulch will be acted upon by soil organisms and enhances decomposition. This action limits evaporation which in turn saves water, prevents weed growth and reduces the heat stress. The organic soil mulch is mixed on site. Approximately 15-20 yards of organic soil mulch are made locally each year on site.

Planting zones: Careful attention to the placement of ornamental and native plants is always a consideration. Flowering ornamentals, which require more water than natives, are positioned just at the entries and native plants are used to transition back to the existing undisturbed landscape. This targeted approach saves water while creating beautiful focal points.

Terraced parking lots capture rainwater and rainwater runoff are directed towards landscape beds. The water is allowed to percolate into the soil and filters out excessive sand, silt and particulate matters harmful to the Truckee River. Lawn area watering times are scheduled to allow water to soak into the soil in accordance with their permeability rates.

William Pennington Applied Technology Center: During a recent renovation, 20,000 SF of lawn was removed and replaced with drought tolerant plantings.

HVAC water savings: Dandini campus is cooled by an open circuit or evaporative cooling tower.



Programing - Fill It Forward /Cupanion is your "eco drinking buddy" mobile phone app, and works with your Fill It Forward / Cupanion sticker with the special TMCC barcode. Contest every semester. This app has tracking, displays how much your personal use is helping, and shows how much we as a community have contributed to water projects!

**1.5 School has a green building standards policy that has achieved measurable results** Drawing upon the first paragraph of TMCC's Sustainability Policy - 5003, it is clear that TMCC is committed to responsible stewardship of resources and to demonstrating leadership in sustainable business practices.

TMCC Building Project Examples as Measurable Results

EAST View Building: Preliminary designs reflect a building that will be terraced into the existing hillside facing Raggio Parkway. The building will take advantage of optimum solar gain for passive heating and solar arrays. In addition, the placement into the earthen hillside will moderate indoor temperatures, thus reducing heating and cooling demands.

Fitness and Sports Complex: TMCC is firmly committed to student success for all its students and their diverse educational goals, including commitment to their physical health and wellness. Sustainable, environmental considerations are also a factor in construction of the new facilities. New Fitness Center Building: 20,000 square feet. Recreation Field: approx. 170,000 square feet Multi-use sports arena - 120 yds. X 80 yds

Sustainable building approaches include passive heating and cooling concepts and daylight zoning. Roof top solar panel arrays will be added. Sustainable landscape approaches include water efficient irrigation heads and a central control that is programmable to adjust for daily evaporation rates.

Learning Commons Remodel: This project focused on the conversion of the College's existing library into a contemporary learning center, or Learning Commons. This active and dynamic space provides new types of learning experiences utilizing modern technology and interactive group spaces that encourage collaboration while preserving quiet study areas. It promotes energy conservation, and by having larger groups in single spaces, reduces the use associated with multiple rooms being heated and lighted.

The Red Mountain building has evolved overtime. It is considered to be the hub to all students and faculty. Its evolving architectural forms concluded with the student center. It is characterized as a two-story atrium space. The structural bow trusses allow clerestory lighting and generous facade windows allow natural light to fill the space. This has reduced the need for artificial lights. The Pennington Applied Technology Center is a prime example of an adaptive re-use to an existing building. Rather than constructing a new building, TMCC chose to work within the building envelope and modify as required. The latest remodel was completed approximately in 2017. The scope of work included natural day-lighting for the entry atrium, a solar panel array and lawn area reductions.

# 1.6 School's landscape demonstrates appropriate water-efficiency given NV's diversity of climates and environments

As discussed in section 1.4, addressing water efficiency and conservation, TMCC has implemented a number of strategies to support desert climate water use, while maintaining beautiful, sustainable landscaping. Landscape plant selection and care for all campuses involves the environmental analysis of wind, soils, mulch, irrigation, fire suppression and the associated pests. Each plant is carefully selected and maintained based off of soil testing and water percolation rates. Further, all TMCC campuses are pesticide free. Over the past three years 120,000 ladybugs were released to control aphids.

The campus has incorporated "targeted" lawn areas around the entries and pedestrian spaces/corridors. Weed control is handled through natural versus chemical approaches. We anticipate seeing a few dandelions here and there. Mowing heights are kept higher in the summer



as to reduce evaporation rates and clippings are used to create our own topsoil and plant amendment mixes.

### 1.7 School has a clearly articulated waste reduction policy with measurable outcomes.

TMCC's waste reduction policy is tied to Policy 5003 and strategic efforts have been put into place to reduce waste, and promote sustainability through our comprehensive recycling programs, as well as the Sustainability Committee efforts associated with plastic straw replacement. Recycling Initiatives - Glass, Paper and Other Recycling

TMCC recycles all office paper, magazines, newsprint, cardboard, aluminum cans, plastic and glass bottles. Despite the challenges associated with recycling in this current environment, including rejection of entire containers of recyclables due to "contamination" in even one item; TMCC is committed to attempting recycling of the proper items.

Administration, Faculty, Students, and Staff are asked to sort items into appropriate bins, which are placed in offices, classrooms, public spaces, meeting rooms, etc. In a concerted effort to promote recycling, items, such as cardboard are stacked outside office doors for pick up. Mixed office paper is placed into office bins and regularly emptied. Additionally, pick-ups may be requested via a Facilities Operations and Capital Planning work order.

Recycling bins are located in each building of all sites, and requests for pick-ups may also be made for these items.

TMCC and our Student Government Association have joined forces on an aggressive ad campaign targeted towards a clear signage program. The new graphic sign, depicted below, will be prominently located at all recycling bin locations.

Fall 2019, TMCC facility representatives visited Reno's recycling center. Attendees toured the recycling material as it arrives from curbside to a completed bundle ready for shipment. The tour gave insight on the challenge to recycle small plastic products such as coffee lids. The findings were incorporated into the new signage program.

Cardboard Recycling: As cardboard is extensively used for packaging, a large amount of it comes as waste in landfills. TMCC has their own cardboard baler to help mitigate this waste.

Toner Cartridge Recycling: TMCC facilities staff pick up empty ink and toner cartridges and are then delivered to a local vendor for proper recycling.

# 1.8 School has a clearly articulated sustainable green custodial cleaning policy with measurable outcomes.

Green cleaning is a value held by TMCC. Facilities management and staff have dedicated practices that support green cleaning best practices. These are outlined below. Commitment to the utilization of eco-friendly products with ECOLOGO certified and Green Seal custodial products, guaranteeing compliance with environmental performance standards. All cleaning chemicals contain low or no volatile organic compounds (VOC's). In regards to cleaning glass (classroom windows), ammonia is avoided due to the inherent harmful fumes that are released, especially in enclosed areas like classrooms. Therefore, all window cleaners are ammonia free. TMCC is fully equipped with EPA registered Clorox Total 360 Electrostatic Disinfectant system cleaners that use a "wrap-around" technology to isolate and remove unwanted microscopic particles. The system employs 65% less solutions. Green cleaning operation is deployed for floor cleaning and polishing, with the ec-H2o technology that uses water. No detergent is used, no emission, no energy loss, no acid, no eutrophication, no particles, just water. Water is electrically converted into an innovative detergent-free solution for cleaning.

# 1.9 School has a clearly articulated hazardous waste reduction policy with measurable outcomes.



The TMCC Environmental Health and Safety (EHS) mission is to support the Truckee Meadows Community College teaching and service functions. EHS assists organizational units in meeting their responsibility to protect the environment and to provide a safe and healthful place of employment and learning.

Within the guidelines promulgated under federal statute (OSHA, EPA), state law (NVOSHA/Division of Industrial Relations, Nevada Division of Environmental Protection), local ordinance (Washoe Co. Health Department Division of Air Quality), Nevada System of Higher Education, as well as other applicable supplemental references (International Fire Code, National Fire Protection Association), the TMCC Environmental Health and Safety Office is responsible for the development, implementation, compliance monitoring, and administration of the EHS management system and associated programs and ensuring adherence by all levels of faculty, staff and administration. The EHS Office is responsible for ensuring training is available and adequate.

Hazardous Waste Management Outcomes: All departments that produce hazardous waste are trained in the regulated procedures for proper waste disposal. All departmental hazardous waste is collected by trained personnel. All waste is categorized, weighed, inventoried and documented on manifest records. Manifests available upon request.

By weight, TMCC generates less than 200 pounds of hazardous waste per month. The Environmental Protection Agency views TMCC as a "Small Generator" of hazardous waste. All permits are reviewed by the City of Reno.

TMCC annually trains approximately 33 personnel annually. Training programs review current policies and procedures and introduce new regulatory requirements.

Batteries (Ni-Cad, Lithium-ion, Lead Acid, Alkaline): Faculty, Staff, and Students at TMCC deposit spent batteries into small boxes, which are then taken to recycling facilities.

Markers: TMCC provides areas where used markers can be collected and sent back to the Crayola company for proper disposal.

# 1.10 School has a task force or committee dedicated to improving the school's environmental impact.

TMCC's commitment to improving our environmental impact is demonstrated in a number of ways, for this section, this is demonstrated through our committees associated with reducing environmental impacts: association with the Second Nature; and through our Sustainability Committee.

TMCC is a member institution of **Second Nature**, a conglomeration of varied, dedicated companies, organizations, and community-based institutions dedicated to climate and resilience commitments. Resilience touches on all aspects of a campus and surrounding community.

**TMCC's Resiliency Commitment** is a pledge to build a sustainable global future through leadership networks in higher education. Second Nature's climate leadership commitments are made by higher education officials toward positive changes at their institutions and beyond.

TMCC joined the Resilience Climate Commitment on November 10, 2016

### **Sustainability Champions Committee**

The TMCC Sustainability Champions Committee members are dedicated to promoting positive, sustainable change to improve the campus environmental impact. In Fall of 2016, the committee was formed with the following purpose and charge and goals:

Purpose: The TMCC Sustainability Champions Committee is a sub-committee of the Diversity Committee. This committee brings faculty, staff, and students to support the incorporation of sustainability initiatives into the classroom and campus together.

"Sustainability" definition: Sustainability is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Charge: Support the mission, values, and goals of the College by assisting in the incorporation of sustainability principles and practices.



Goals: Help incorporate sustainability principles and practices into academic programs. Promote understanding and inclusion of sustainability concepts through pedagogy and curriculum. Facilitate sustainability initiatives in academic programs, service learning, or other forms of civic engagement. Assist with the assessment and impact of the College's sustainability efforts through the collection and analysis of data. Recommend conservation and sustainability initiatives related to college infrastructure to TMCC Facilities Operations and Capital Planning Department.

TMCC Green Team Campus Initiative Steps to join: Check out the Accomplishment Checklist, commit to at least 20 of the listed items, receive your TMCC Green Team image and display it!

# 1.11 TMCC's environmental task forces/committees demonstrating the ability to work with students, teachers and the surrounding community to improve the community's environmental impact.

Student led initiatives sparked an interest in the importance of physical health and the direct benefits in the classroom. Faculty and staff navigated and guided TMCC's Student Government Association (SGA) with efforts to introduce an initiative for a student credit fee increase to fund a new sports complex building, outdoor track and multi-purpose field.

The Sustainability Champions committee worked directly with the SGA with the school wide recycling program. Informational signs were created to assist with the confusion of proper sorting for all of the recycling bins located on all four campuses.

Organized / created educational seminars for our full and part-time teaching faculty focusing on green initiatives, involvement opportunities, and sustainable methods of saving paper and ink cartridges.

To date, the Sustainability Champions Committee has led over 50 "one-on-one" meetings with teaching faculty focusing on the embedment of green concepts and best practices into classroom pedagogy.

Each semester (Spring and Fall) the Sustainability Champions Committee reports to the President's and Planning Council meetings. Reports include sustainable or green initiatives completed or in progress.

Ability to work with the surrounding community: High Desert Montessori School, Homeless service providers: Northern Nevada HOPES and the Eddy House, Annual Washoe County Homeless Youth Count, City of Reno Fire Department, Sustainable Partners in Northern Nevada (SPINN), Sustainability & Climate Advisory Committee - City of Reno, Keep Truckee Meadows Beautiful Workshops, Weather Ready Nation Ambassador - National Weather Service

### Pillar II: Improve the health and wellness of students and staff.

# 2.1 School has integrated pest management efforts including green certifications earned, routine inspections, monitoring and record keeping.

TMCC acknowledges and adheres to the idea that integrated pest management (IPM) can be applied when managing all kinds of pests, including insects, weeds, diseases and vertebrate pests, such as ground squirrels and raccoons. We integrate prevention with cultural practices through the use of mechanical and/or physical pest controls, such as traps, the release of ladybugs and with chemical pest controls to prevent and suppress pests.

TMCC's IPM approach includes a well-rounded philosophy that aims to improve rather than simply maintain. This philosophy immediately addresses the prevention of unwanted pests such as weeds by creating landscape environments that replicate the plants natural environment. The TMCC staff inspects the landscape areas on a day-to-day basis and they are able to identify potential threats and begin integrating environmentally friendly prevention.



# 2.2 School Minimizes Exposure to hazardous contaminants including smoking and vape use on campus.

TMCC works hard to protect the campus community from exposure to hazardous contaminants such as hazardous waste, regulated nonhazardous waste, and universal waste. The TMCC Environmental Safety and Health Office (EHS) is committed to providing all its employees a safe and healthy work environment, and to see that employees receive the proper training to protect themselves against hazardous substances found in the workplace. This training program has been developed in accordance with 29CFR 1910.1200. The Hazard Communication (HAZCOM) Program's purpose is to facilitate the EHS system to ensure that all receptacles containing hazardous substances are clearly and properly labeled, that Safety Data Sheets (SDS), Material Safety Data Sheets (MSDS), or other hazard data are available to all employees in their respective work areas, and employee training on hazardous substances is made available. Hazardous waste storage areas are used to store waste containers prior to disposal shipment. Each individual hazardous waste generator is responsible for care and control of their container storage area(s). Hazardous wastes are generally picked up at the end of each semester or more frequently if needed. EHS works with hazardous waste transport contractors to schedule arrival, locations for waste pick-ups, and what replacement supplies will be needed. In the event of a spill, both hazardous and non-hazardous, TMCC's EHS personnel are well prepared with proper handling techniques and a full emergency operation plan.

TMCC is committed to promoting a healthy campus community by supporting a some-free and tobacco-free environment to protect the health and safety of students, faculty, staff and visitors. In compliance with the Nevada Clean Indoor Air Act (NRS 202.2483), all students, staff, faculty, and visitors are asked to refrain from using tobacco in any form including cigarettes, cigars, pipes, hookah, e-cigarettes, and smokeless tobacco products at any of TMCC's sites outside of the designated smoking areas.

TMCC acknowledges the established risks associated with tobacco use, smoking, and secondhand smoke exposure. It is our goal to promote a healthy environment and to encourage health and wellness for our entire constituency.

# 2.3 School has identified and removed sources of elemental mercury and prohibits its purchase and use in the school.

Certain high-heat lighting, such as that used in commercial media / projection devices use mercury in the manufacturing process. The bulbs themselves may contain trace amounts of mercury. High-heat and fluorescent lighting are considered a universal waste under EPA's RCRA regulations (40 CFR Part 273). As a best practice, TMCC treats all of these products as such and handles them under the direction of universal waste regulations whether they are mercury-containing or not. All mercury-containing equipment is packaged and shipped according to EPA and DOT regulations by certified waste shipping organizations. Universal waste shipments are manifested or properly documented. Certificates of destruction / recycling or TSD confirmation receipt via Uniform Hazardous Waste Manifest are kept on file electronically.

# 2.4 School has taken steps to protect occupants from carbon monoxide produced by fuel burning appliances.

TMCC has a thoughtful approach to protecting the campus community (on all campuses) from the deadly effects of carbon monoxide by incorporating CO detectors in all appropriate places, performing yearly service of heating appliances and testing the internal systems every two years for Legionnaires Disease.

#### 2.5 Radon Gas



TMC is not currently testing for Radon Gas emissions but has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR school was built with radon resistance construction features.

## 2.6 Playground Structures

School has identified any wood playground or other structures that contain chromate copper arsenate and has steps taken to eliminate exposure.

# 2.7 School can effectively describe how they control and manage chemicals routinely used in the school to minimize student and staff exposure.

As discussed throughout Pillar 1 and in Pillar 2.2, the TMCC Environmental Health and Safety (EHS) Office ensures that training is provided to help students and staff effectively stay safe from chemicals used on all campuses. To create a culture of safe working habits, the training and inspection programs include, prevention and behavioral based safety training, departmental audits and safety consultations.

### 2.8 Mold Control: Moisture Management

School can effectively describe actions taken to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. TMCC's Maintenance staff is on constant vigil assessing and correcting leaks. Because Nevada is in the high desert, the average humidity in summer is approximately 24%, and in January, 65% - humidity is not much of a concern unless something is leaking. If there is a leak, TMCC has drying equipment to handle small to medium jobs. TMCC has two certified individuals trained in the proper safety methods to assess mold situations. Training Certificates available upon request. When a moldy situation does present itself, we are trained to encapsulate and barricade. We use a Nevada certified mold inspector to take samples and determine corrective action. We then use a licensed mold abatement contractor to remove the mold, following that up with post air sampling. All of this is documented and housed in the EHS office.

#### 2.9 School has taken actions to prevent exposure to asthma triggers.

The indoor air quality for classrooms and common areas are controlled by Merv10 filters. Fresh air exchanges throughout the buildings meet code requirements, and classrooms have fixed windows that assist with controlling the environments and avoidance of excessive allergens being "blown-in." Additionally, dust is abated daily through the cleaning of the entire building and classrooms. Staff and personnel are trained to identify mold areas and procedures are in place to mitigate any situations. Dust mites are abated through daily vacuuming with units fitted with hepafilters. Animal dander is minimal as only service animals are permitted on campus.

### 2.10 School can describe steps taken to protect indoor environmental quality.

Education and awareness for IAQ issues are handled by TMCC EHS's Ben Davis. Each semester trains staff and personnel on proper procedures. Annually, approximately 30 participants, are trained or re-trained per year.

TMCC HVACR provides the most up to date countermeasures in air conditioning and refrigeration coolants, and is committed to the prevention of hydrochlorofluorocarbons (HCFC) and hydrofluorocarbons (HFC) refrigerants, as powerful greenhouse gases. Success in IAQ is measured in a number of ways, including compliance of ASHRAE, IECC and the EPA regulations. Adapting to code changes can be witnessed by TMCC's retrofitting of the heat pumps from R22 to 410A that will have the new EPA approved refrigerant for ozone protection.

#### 2.11 Nutrition Initiatives



School implements healthy nutrition initiatives such as participating in the USDA's Healthier US School Challenge, Farm to School Program, or nutrition education build in curriculum for students. TMCC is a non-residential, commuter campus. This means that students are not required to eat on campus, and there is little control over individual choice when deciding on food. We provide food services in the following manner: TMCC Cafe and Vending machines. In order to promote healthful, nutritious choices, TMCC offers items such as a fresh salad bar, nutritional shake station, as well as fresh cooked menu items. In 2017 an Innovations Fund Grant allowed the building of the college's first Community Garden on a piece of ground under the wind turbines off the southeast corner of the Sierra Building on the Dandini Campus. Harvest of vegetables from the community garden have contributed to the on-campus food pantry that we call, Wizards Warehouse. The TMCC Wizard's Warehouse, in partnership with the Food Bank of Northern Nevada, brings food and personal item assistance to students, faculty and staff at the Dandini Campus and Meadowood Center. The TMCC food pantry was founded in the Fall of 2015 as an organic evolution of like-minded people who wanted to build a safety net for under-resourced students. In 2018-2019 there were 994 visits to Wizard's Warehouse.

### 2.12 Campus Wellness

TMCC implements physical education programs and initiatives to increase daily physical activity for the entire TMCC campus community.

In 2015 Faculty and Staff organically created an informal Wellness Committee. As the momentum grew for this type of interaction, the outgoing TMCC President, Dr Maria Sheehan, sponsored a more formalized approach by inspiring a "formal" Wellness Committee, and through providing funding to promote wellness activities. The Committee has been committed to a holistic approach to wellness meaning, activities are associated with physical (exercise, diet, sleep), psychological (mental well-being), and spiritual (congruence in relationships and life) wellness. To expand collaboration, and to focus on wellness, the field day was created to promote fun, fitness, and interdependence between faculty, staff, and students. This collaborative event was organized by the Wellness Committee and the Student Government Association (SGA).

# 2.13 School uses a Coordinated School Health approach, such as the Whole School, Whole Community, etc. and/or implements a School Wellness Policy to address overall school health.

TMCC is not a small, private, residential campus, making it difficult to implement programs like the Whole Child Model. However, the institutional mission includes elements of holistic health and wellness. a director of campus health was hired.

Furthermore, TMCC has established several committees that seek to align with the success of our core themes and enhance the mission and vision of the college. Staff and student volunteer participants are welcome to take part in most TMCC committees to offer their unique insight, input and effort to reach the goals that are set each year.

### 2.14 School supports student mental health and school peer climate engagement

TMCC supports student mental health and school peer climate engagement (e.g. anti-bullying programs, peer counseling, etc.) The TMCC Counseling Center participated in a study using a web-based guided self-help program based on Acceptance and Commitment Therapy, a nationally known and well-respected approach to mental health and wellness. Students were able to participate in a series of online self-help modules focused on creating the life they want, and dealing with internal barriers that may be getting in the way.

JED Foundation Campus National Participation in Equity in Mental Health Research and Interventions: TMCC is a JED Foundation (Links to an external site.) Campus, and we have committed to the foundation's Equity in Mental Health study. The JED Foundation is a nationally recognized, nonprofit organization "that exists to protect emotional health and prevent suicide for



our nation's teens and young adults." This project began in fall 2018, and goes through 2020. Results from the program will be available in the future, and focus on increasing awareness and utilization of mental health services to people of color and diverse groups.

Student Support Network: TMCC Counselors facilitate Student Support Network (Links to an external site.) Workshops. Developed by Worcester Polytechnic Institute Counseling Center, the Student Support Network (SSN) program trains selected students to identify, support, and refer peers who may be struggling with significant mental and behavioral health concerns.

The TMCC Equity, Inclusion and Sustainability Office leads efforts to make sure that during your time at the College, you are part of an inclusionary environment that honors diversity and integration. We also respect planning ahead for a sustainable future, and lead efforts towards our Core Value of stewarding our resources through conservation, education and healthy living choices.

Highlighted Programs: In It Together (inclusive environments campaign), Men of Color (peer mentoring program), Students of Color Mentorship Program, Faculty of Color Coalition, DISCO - Diversity and International Student Center and Office.

### 2.15 Students have participated in an EPA's Sunwise or equivalent program.

The EPA's SunWise Program (Links to an external site.) focuses on cross campus, cross curricular education about overexposure to ultraviolet (UV) radiation, and is geared to K-8th grade. TMCC is not a member of the SunWise program, and due to our status as a commuter college campus, it is difficult to have a "coordinated" effort to provide information as outlined in the SunWise Program Guide. In terms of health and wellness efforts targeted to sun protection, TMCC Sustainability Champions Committee has influenced campus wide purchasing practices of our SWAG products to include UV resistant shirts and baseball caps. To further protect our students, faculty, staff, and community from excess UV radiation, TMCC provides pop-up canopies at events and around campus.

### 2.16 Collaborations and Partnerships

TMCC partners with post-secondary institutions, businesses, non-profit organizations or community groups to support student health and/or safety such as:

Division of Welfare and Supportive Services - State of Nevada - TMCC provides training and support to a cohort of SNAP benefit recipients.

Dress for Success - City of Reno - The TMCC Career Center works with the City of Reno to provide Dress for Success workshops as well as work experience for first semester, first generation students.

Food Bank of Northern Nevada - In conjunction with the Food Bank of Northern Nevada, TMCC is able to provide food and toiletries to students via the Wizards Warehouse. The Wizards Warehouse brings food and personal item assistance to students, faculty and staff at the Dandini Campus and Meadowood Center. The TMCC food pantry was founded in the Fall of 2015 as an organic evolution of like-minded people who wanted to build a safety net for under-resourced students.

Nevada Department of Employment Training and Rehabilitation - Vocational Rehabilitation TMCC is in a third-party cooperative agreement providing support for students with disabilities. Nevada Division of Corrections and Federal Parole and Probation/Diversion Courts/WCSO TMCC is spearheading a program focusing on supporting individuals re-entering society. This reentry program for justice involved folks involves tuition support, Getting Ahead workshops, and help and support for recipients in overcoming challenges associated with reintegrating to society and college.

Regional Transportation Commission - Washoe County - TMCC Faculty, Staff, and Students are provided free regional bus passes.



Suicide Prevention Collaboration with Nevada State Office of Suicide Prevention - TMCC has a long relationship with the Nevada Office of Suicide Prevention. We provide outreach to faculty and staff; host awareness trainings; and provide crisis intervention and post ideation/attempt counseling treatment. TMCC earned the SAMHSA grant for suicide prevention, and through that three-year grant, we have established safety nets, and awareness of the threat of suicide. University of Nevada, Reno Behavioral Health - TMCC has a Memorandum of Understanding (MOU) with University of Nevada School of Medicine Behavioral Health Department for TMCC students. This collaboration allows Counselors to refer TMCC students for diagnosis and medical treatment for mental illness. TMCC provides the first sessions at no cost to students. Washoe County Human Services Foster Youth Program - TMCC's partnership with Washoe County Foster Youth Program allows Foster Youth who are in college support and mentor-ship while negotiating success toward their goals. A dedicated faculty member is assigned to assist these students as well as coordinate a yearly Foster Youth Summit. Getting Ahead workshops are offered to these students as well.

# <u>Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways</u>

Environmental and sustainable concepts are meaningfully integrated into formative and summative assessments.

#### Formative Assessment - Curriculum Centered

**Curriculum Focus:** TMCC Advisory Boards . Career programs, employers and students exist in a rapidly changing environment. The pace of change requires that we review our curriculum and practices often to make sure they are relevant and meet employers' expectations. There is no limit to what the advisory committees and their members can contribute to the college. Examples of ways in which advisory committees support colleges include advocacy; curriculum development and program changes; assessment or evaluation of programs; environmental relevancy; and resource development.

**Student/curriculum focus:** Relevant issues have included topics of sustainability and technology. This often leads to changes to the Student Learning Outcomes. For example, the architectural advisory board suggested that a computerized drafting platform should be taught for entire semester. Another example is the importance of passive heating and cooling concepts. **Course Assessment Reports:** The formative assessment method utilizes both "Course Assessment Reports" or CARs and input from Advisory Boards. Each course assesses the student grades as determined by assignments, tests, quizzes, projects etc. In turn each assignment aligns with a learning outcome and measure.

Course Assessment Reports are nimble and assess the data from student grades which can also amend or change the Student Learning Outcomes. For example, test scores may validate teaching methods or reveal a deficiency. Deficiencies can be addressed with different approaches to teaching or assessing whether or not the subject matter is relevant to the student Learning Outcomes as discussed in the advisory boards. Faculty are encouraged to attend relevant professional development courses. Faculty are responsible for furthering K-12 concepts. Faculty collect the data and validate or adjust Student Learning Outcomes as needed. As noted, environmental and sustainable concepts are relevant.

#### **Summative Assessment**

Summative assessment focuses on the underlying course curriculum. Course assessment can be pictured as containing three vertical levels. The alignment strategy that begins at the top with the Program Outcomes, the middle level analyzes each Course Student Learning Outcome and the bottom layer ends with classroom Assignments.



Program Outcomes (top layer) are assessed every four years through a process referred to as a Program Unit Review. It looks at the big picture.

Student Learning Outcomes (middle layer) are assessed every four years through a process referred to as a Course Assessment Report (CARs). CARs Identify specific student grades that support each learning outcome. This summative assessment tool is used to evaluate student learning, skill acquisition, and knowledge at the conclusion of a defined instructional period. Assignments (bottom layer) are developed by the instructor for each course that is offered. By nature, they are very flexible and are considered as formative.

The "Vertical Layer Cake" as described above is designed to complement and support each other. As the data is gathered through the assessment process, instructors synthesize the data and in turn create a Course Improvement Plan (CIP).

CIP Assessment Data Analysis. Analyze the aggregate CSLO assessment results. For example, what were the learning gains on a pre/post-test? What percentage of students scored proficient or above on a licensure exam? Analyze by question or content area; or, if you used an assignment with accompanying rubric, analyze the different rubric criteria. In which areas did the students perform well, and in which areas do they need improvement?

CIP Closing the Loop. After examining and discussing the aggregate CSLO assessment results, what modifications to curriculum, pedagogy, student support (e.g. tutoring), and/or faculty support (e.g. professional development) are needed to improve student learning? What will the expected improvement in student learning be after these modifications are implemented? (Reflection). Do any changes need to be made to the CSLOs themselves to maximize learning?

The summative assessment process analyzes the data from the formative process and compares it to the "Big Picture" or the Program Outcomes as illustrated through the "layered" process. Change at the program level is a five-year process. The time frame is useful in determining shortor long-term trends. Successful change occurs from a 'bottom-up" process. Note: AAD 230 reflects a recent change. Outcome 1: Identify passive solar systems for buildings and Outcome 2: Develop unique architectural styles using passive solar and sustainable products.

### Student-Demonstrated Evidence of High-Level Engagement/ Assessment

**Introduction.** Formative assessment is an ongoing, flexible, and more informal analysis tool. It is focused on the individual students, their needs, and strengthening their learning process. At TMCC there is an "Immediate Curriculum Centered Formative Assessment" and "Semester Curriculum Centered Formative Assessment." The "Immediate" assessments are characterized by daily or weekly assignments that happen in the classroom. Same day or weekly feedback is expected. The "Semester" assessments are characterized by a process that gathers data throughout the semester. Results typically are revealed at the end of the semester and applied the following semester.

#### Immediate Formative Assessments include:

Student Feedback Sessions. In the classroom setting, midway through an assignment, students self-evaluate their progress and anticipated placement upon a grading rubric. A grading rubric represents the aligned course objectives and/or project goals. Feedback sessions typically contain working groups of three to four students.

Assessment Analysis Questionnaires. Upon completion of an assignment, questionnaires are provided to each student. Questions ask if the directions were clear. Were the evaluation criteria clear? How much did you learn? Followed up with suggestions or improvements.

Architecture Story-line. Every assignment is carefully crafted as to align with the course learning outcomes. At times they are repeated due to their success or changed in response to the immediate assessments from students, course assessment reports or input from the advisory board. Project relevancy is always vetted with an "End of Semester" process as outlined below: **Project Scoping.** Instructors collaborate and deliberate over the growing developmental and environmental trends nationwide and within Reno, NV. In turn, the current trends are vetted with



the course learning measures and outcomes. It is a standard practice to invite a past graduate student for their perspective for the incoming student population.

**Project Creation.** TMCC looks backward to incoming knowledge from K-12 and forward to either a terminal degree or a transfer degree. Students are challenged at various cognitive levels. Blooms Taxonomy paired with Course Assessment Plans and Blueprints serve as tools.

**Observable and Actionable Deliverables.** Measuring the incremental steps include interim submissions. They typically include written narratives and study models. Study modeling explores a wide range of mediums such as foam core, clay, balsa wood and Legos. The array of mediums teases out different creative responses.

**Student Centered Evaluation Forms.** At the end of each semester students evaluate each course they are enrolled in. They evaluate their own participation, attendance along with evaluating the effectiveness of the instructor and the course material.

# Professional Development for faculty and staff in environmental and sustainability education as aligned with the NVACSS:

**NVACSS HS-LS2-3:** "Construct and revise an explanation based on the evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions." Training: TMCC in partnership with KTMB offered a professional development course on a "Zero Waste Initiative." Residents of Washoe County dispose of a large amount of organic waste including yard or green waste and food waste. These organic materials can easily be composted and turned into nutrient rich soil for your garden or indoor house plants.

**Classroom Applications:** Chemistry 101 draws upon the daily student lives and their usage of cell phones, automobiles and individual carbon footprints. As for Cell phones, students explore its life cycles from material extraction, processing, manufacturing, packaging & transportation, useful life and end-of-life address the human impacts on our Earth's systems. Discussions occur on proper protocols for disposal.

NVACSS HS-LS2-7: "Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity." and NVACSS 5-LS2: "Ecosystems: Interactions, Energy, and Dynamics. Training: TMCC's Sustainability Champions regularly participates with our Fall Professional Development Days. Topics include: College recycling programs, Electric vehicle charging stations, forced power shutdown feature on all academic computers that are sitting idle, etc.

**Classroom Applications:** Land and water waste streams are observed and discussed through the lens of reversible and irreversible consequences. As witnessed by TMCC veterans, trash debris along the Truckee River and our Freeways provide hands-on learning examples. Students directly benefit from current and relevant topics as presented by professionals in our community along with "hands-on" examples found on the campus.

**NVACSS K-ESS3-3:** "Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment." Training: TMCC (Fall 2017) created and offered a campus wide symposium titled "Theoretical Supposition of Nevada Warming by 4 Degrees. The event was held at TMCC auditorium.

**Classroom Application:** Students heard from practicing professionals the clear and present threat to our local and global environments. The Design with Nature class emphasize the concepts of passive heating, cooling, day lighting and ventilation.

**TMCC's Demonstrates usage of sustainability and environment through STEM. AAD 230 Design with Climate.** STEM Applications. Integrated Core Idea: HS. Energy: HS-PS3-2. "Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motions of particles (objects) and energy associated with the relative position of particles (objects)."



**Rationale**: Trombe walls illustrate the concepts of stored energy. Students design and construct a life size replica. Research includes materials, form, surface coloring, solar orientation and venting. **HS-PS3-3.** "Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy."

**Rationale:** Students are presented with the passive heating and cooling concepts. In particular the concepts of converting one form of energy into another form of energy. Wind is discussed in the context of cooling and applied to architectural stack ventilation concepts. Study models are created that create closed systems and are then modified to naturally create high and low air pressure situations. Carefully placed openings will create wind movement within the space. Wind turbines are also discussed. They basic concepts of energy conversion is discussed in the context of architectural case studies.

**STEM Applications. Integrated Core Idea: HS-ESS2 Earth's Systems.** HS-ESS2-4. "Use a model to describe how variations in the flow of energy into and out of the Earth's systems result in changes in climate.

**Rational**: Focuses on the changes in human activity and an assessment of how building shapes and forms results in the changes in climate. Specific examples include roof overhangs, Trombe wall orientation, building orientation, glazing and roof slopes.

**STEM Applications. Integrated Core Idea: HS. Chemical Reactions**. HS-PS1.5. "Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs. **Rationale**: In context to SLO 1&2. Students extend the concepts of "Convection, Radiation, and Conduction" by applying them to the built environment. Students design a project that incorporates the passive heating and cooling concepts of Trombe walls and floors, solar orientation, stack ventilation and natural day lighting that is complimentary to indoor tasks.

### CHEM 100 Molecules and Life in the Modern World

Chemistry 100 captures the essence of the interview topic – "Human Impacts on Earth Systems." Dr. Kolbet teaches to either a cohort of high school students seeking dual credit with the Community College or to first year college students. Dr. Kolbet sorts through the world's current media sources through the lens of "sustainability" or "green" concepts. Students explore how chemistry is associated with range of relevant topics such as: cell phone materiality, vehicles, water, atmospheric conditions and landfills. Katy's approach to using the world's relevant topics and her ability to relate subject matter to our own individual lifestyles and self-carbon footprints has increased student engagement and completion rates. While each student is drawn to the personal chemistry lessons found in our daily lives, Katy expands their knowledge by demonstrating how personal lifestyles effect global warming. Katy is aware of and integrates the NGSS K-12 science standards.

### **CHS 230 Introduction to Environmental Health**

Professor Lahti's Community Health Science class explores how human health is intertwined with the planets natural systems. Students are introduced to foundational concepts of defining human health and how an imbalance or a disruption to the planets' natural processes can directly impact our own well-being. This includes an interdisciplinary exploration of influences on diseases, emerging environmental issues, environmental risk factors, and exposure. The cause and effect relationship scenarios are introduced and students explore public health policies intended to mitigate the imbalance as it relates to protecting and preserving human health from the perspective of both physical health and mental well-being.

TMCC's Sustainability and Environment as green technologies and career pathways. Associate of Applied Science & Associate of Science



AAS. Construction and Design - Architecture. Sustainable architecture is architecture that seeks to minimize the negative impact of buildings by efficiency and moderation in the use of materials and energy. Sustainable design reduces the negative impact on the environment and human health. Careful consideration is given to water, energy, and building materials. Foundational design classes emphasize system efficiency, and their use of energy and water through better sitting and design.

AAS.Energy Technologies - Solar Energies. The Associate of Applied Science, Energy Technologies, Solar Energy is designed to provide students with the skills necessary to enter the workforce in the renewable energy field as technicians in solar photovoltaic and thermal installations. The solar energy technician completes accurate site assessment and energy demand analysis from which a solar energy system will be designed and installed. The program prepares students to sit for industry-recognized certifications required to enter the workforce. AAS.Energy Technologies, Wind Energy. The Associate of Applied Science, Energy Technologies, Wind Energy is designed to provide students with the skills necessary to enter the workforce in the renewable energy field as large and small wind installers. Wind installers complete an accurate resource assessment and energy demand analysis from which a wind system will be designed and installed. The program prepares students to sit for industry-recognized certifications required to enter the workforce.

## TMCC's student led civic/community engagement

TMCC community engagement with Reno's High Desert Montessori School (HDMS).

Students created several design alternatives for a new building. The focus was on sustainable / green building practices and outdoor learning environments. Unique to the project was the continuation of science or outdoor learning promoted at HDMS and extended to higher education. Environmental and Sustainable topics: Dependence upon fossil fuels for heating and cooling. The classroom as an indoor/outdoor learning environment.

Real word problem solving: Students researched passive heating and cooling concepts along with ways in which to explain their findings and conclusions with the HDMS. Students solved the design problems by researching passive heating and cooling concepts along with embracing the concept of architecture as connected to a site. The two research objectives steered the TMCC students towards graphic representations and models of said concepts.

TMCC community engagement with NV, INBRE and NASA Space grants. Professor Lahti broadens student learning through undergraduate research focused on ecological & environmental conservation. Milkweed is the sole host plant of monarch butterflies (Danaus plexippus), and loss of habitat is a major factor attributed to the rapid decline of monarch butterfly populations. The monarch butterfly is currently being considered for protection through the Endangered Species Act. Environmental and Sustainable topics: Conservationists have labelled monarchs as an indicator species, meaning the species is a strong indication of the health of larger parts of the surrounding ecosystem.

Real world problem solving: Milkweed populations throughout North America have experienced significant decline over the last few decades. Aside from facilitating habitat restoration and contributing to the scientific community, our milkweed research also serves to engage students with the community at-large through partnerships and outreach opportunities.

TMCC's alignment between outdoor learning and NVACSS grade level alignment.

Student Thread of Learning: As outlined in the "Framework for K-12 Science Education: Practices, Crosscuting Concepts, and Core Ideas" by grade 12, students should be able to: "Solve design problems by appropriately applying their scientific knowledge." As demonstrated by TMCC's engagement with High Desert Montessori School focuses on grades K-8. Career exploration at the middle school level is critical. Middle school explores career possibilities.



Students participating in career exploration programs as middle-school students are more likely to enroll in higher level courses that support concepts associated with the environment.

"Undertake design projects"... that produces a plan that meets specific design criteria. As demonstrated by TMCC's engagement with the Reno Homeless Youth, Milkweed research and Truckee River research projects.

"Evaluate and critique competing design solutions based on jointly developed and agreed-on design criteria." As demonstrated, TMCC students have been introduced, at all grade levels, to a myriad of projects that demand design solutions. Often there is competing criteria that affects the hypotheses. As stated throughout the pillars, students are challenged with the criteria set forth by a text books and community objectives. Civic skills (stake holders) are honed by the observing the game of compromise.

# TMCC demonstrates how outdoor learning is used to teach an array of subjects in context, engage the broader community, and develop civic skills. For example:

Architecture. Civic Skill sets were developed and defined through the student led initiative to work with and identify an age range for the homeless youth project. Overwhelmingly, the age range between 18 & 24 defined the homeless youth population. Students were tasked with interviewing similar homeless youth service providers and charity houses. They each demonstrated their personal communication skills, knowledge of the political systems, and the ability to critically think about civic and political life. A re-occurring theme that each homeless youth deserves to live in a place with dignity.

Environmental Science. While students focus on the project at hand, they must also consider the demands of stakeholder working groups. The groups offer up perspectives from the community. At times the stakeholder viewpoints may align with the project goals or they may be in oppositions. As students create solutions, they must consider the goals of the project with that of Stakeholders. Often times, there may be competing goals. Therefore, students are often engaged with solutions that offer up compromises.

### TMCC demonstrates evidence of school partnerships with the following examples:

City of Reno Fire Station, Reno, NV. Architectural design students worked with the City of Reno to create a new fire station at the corner of 4th and Valley road. Students were challenged with researching and applying local building codes, meeting the guidelines of the American Disabilities Act and the wishes of the firefighters.

Homeless Youth Shelter, Reno, NV. Architectural design students worked with local service providers, City of Reno and local businesses to help solve the homeless youth problem. Outcomes were acknowledged by Councilwomen Duerr, Jardon, and Brekhus, along with Senator Catherine Cortez Masto.

Riparian Milkweed Conservation Research: Through this research, we have worked with and developed partnerships with many entities in northern Nevada. We are working with Washoe County Regional Parks & Open Space, the City of Reno Parks and Recreation, The Nature Conservancy, The U.S. Fish and Wildlife Service, and The River Wranglers.

# TMCC demonstrates core environmental, sustainability, STEM, green technologies, and curricula as follows:

Sports and Fitness Complex Capital Project. Through a student led initiative, TMCC has constructed 20,000 square foot fitness center. The project was built as a LEED equivalent "Silver" rating. The location takes advantage of existing parking and adjacent utilities. The building entrance takes advantage of a network of existing sidewalks alleviating excessive vehicular trips. Many "Green" or "Sustainable" concepts were incorporated. They include, natural day lighting, reuse of recycled building materials, and low VOC finishes.



## Postsecondary Sustainability Award Nominee Presentation Form

#### ELIGIBILITY CERTIFICATIONS

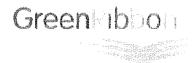
College or University Certifications

The signature of college or university President (or equivalent) on the next page certifies that each of the statements below concerning the institution's eligibility and compliance with the following requirements is true and correct to the best of their knowledge.

- 1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
- 2. The college or university is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a compliance review.
- 3. OCR has not issued a violation letter of findings to the college or university concluding that the nominated college or university has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
- 4. The U.S. Department of Justice does not have a pending suit alleging that the college or university has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
- 5. There are no findings by Federal Student Aid of violations in respect to the administration of Title IV student aid funds.
- 6. The college or university is in good standing with its regional or national accreditor.
- 7. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

# U.S. Department of Education Green Ribbon Schools Postsecondary Sustainability Award

☐ Public 4-Year ☐ Public 2-Year ☐ Private Non-Profit
Name of President/Chancellor: Dr. Karin Hilgersom
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)
Official College or University Name: Truckee Meadows Community College (As it should appear on an award)
College or University Street
Mailing Address: 7000 Dandini Blvd.
(If address is P.O. Box, also include street address.)
County: Washoe IPEDS Number*: 182500
Telephone: 775-673-7123 Fax:
Web site/URL: www.tmcc.edu E-mail: sustainability@tmcc.edu
*Integrated Postsecondary Education Data System
I have reviewed the information in this application and certify that to the best of my knowledge all information is
accurate.
Karin Kelgerson Date: 11/4/2019
(President's/Chancellor's Signature)
ED-GRS (2019-2021) Page 1 of 2



### Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the college or university's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

- 1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
- 2. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Nevada Department of Education

Name of Nominating Authority:

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

Nominating Authority's Signature)

#### **SUBMISSION**

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509 Expiration Date: March 31, 2021

#### **Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

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