

## **VISION**

Nevada State College is in the desirable position of developing a completely new physical campus on a 509-acre site in Henderson, Nevada. It is anticipated that NSC will develop approximately six million square feet of academic and campus support space (residential, commercial and cultural), as well as open space by the time it reaches its projected full enrollment of 25,000 - 30,000 students.

The College has a unique opportunity to create a truly sustainable campus community from the ground up. This campus master plan addresses sustainability in areas including: carbon, energy, water, waste, materials, transportation, and landscape and has been prepared in cooperation with the City of Henderson. As a consequence, the campus has the opportunity to be a model of sustainable development that can educate through its very design and operations, as well as its curriculum.

Unlike the majority of established college and university campuses, Nevada State College has the opportunity to not simply rethink the design of one

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building, but rather to undertake the design and development of a whole community. Notwithstanding academia's early embrace and adoption of "green" thinking and practices, it is a rarity to have such a unique opportunity (and challenge) to create an institution in which sustainability will be practiced and demonstrated at every level - outside the classroom as well as within. By broadly embracing a culture of sustainability, Nevada State College will better prepare its graduates, faculty and regional business partners for the energy challenges that are confronting the global community.

Of particular importance is Nevada State College's intent to demonstrate how carbon neutrality can be achieved at a community or campus scale. The College plans to serve as a model for the city, region and country of how integrated planning, architecture and infrastructure can result in a net zero carbon footprint for a large development.

#### PLANNING PRINCIPLES

Through the discussions and interchange associated with the preparation of this master plan, principles have emerged that embody a vision for the future character of the campus and institution. While over time these concepts will evolve, they should be constantly revisited so they can remain clear and consistent as the campus grows to realize its mission to educate the next generation of students. The key elements of the vision for the NSC campus include:

- Sustainability and Carbon Neutrality
- Vital Living and Learning Environment
- Campus / Town Integration
- Respect for the Desert Environment
- Campus as Educational Laboratory.

## SUSTAINABILITY AND CARBON NEUTRALITY

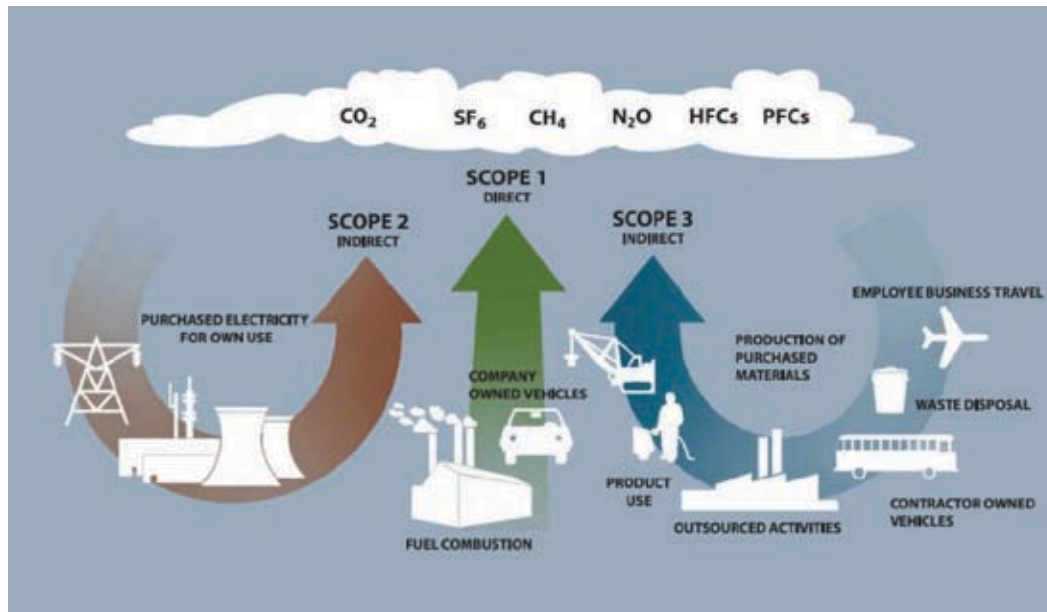
An overarching principle of this master plan is to develop the campus in accordance with sustainability best practices and to achieve carbon neutrality. For the purposes of this master plan, sustainability is defined as the campus' ability to minimize its impact on the environment and serve as social and cultural resource, while minimizing capital requirements and ongoing costs of operation.

Nevada State College has set a goal of achieving “carbon neutrality.” NSC defines carbon neutrality to be the generation of zero net carbon or carbon equivalent emissions from direct campus operations. “Zero net emissions” in this case means that the actual conversion of fuel to energy will not generate emissions, or that NSC will offset emissions from fuel or energy use through the on-campus generation of renewable energy or off-site generation of renewable energy.

Campus emissions that will either be eliminated or offset include Scope 1 and Scope 2 emissions as identified by the Climate Registry. The Climate Registry is a nonprofit collaboration among North American states, provinces, territories and Native Sovereign Nations that sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions into a single registry. As shown in Figure 3.1, Scope 1 and 2 emissions defined by The Climate Registry include:

- Direct emissions from all NSC-owned vehicles
- Direct emissions from fuel combusted on site for energy
- Indirect emissions through the use of purchased electricity.

Figure 3.1: Emissions as Defined by the Climate Registry



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#### VITAL LIVING AND LEARNING ENVIRONMENT

The academic mission of Nevada State College is the overriding consideration of this master plan and all the improvements that will follow. Providing the appropriate facilities to support interaction between staff, faculty and students in and out of class is essential. Facilities must be designed to provide flexible learning environments for the 21st century; outdoor environments will also be the locations of activities and interactions that support the learning environment.

In addition to the academic and support facilities housing classrooms, offices, libraries, laboratories and study spaces, facilities to support campus life are also important. Student housing, geared toward the wide range of potential students that will attend NSC, and athletics and recreation buildings and fields will be provided. Food service, lounges and other activity spaces will be important elements to complement the academic mission.

The campus site is adequately sized to accommodate the planned enrollment and population of Nevada State College with flexibility for unforeseen needs or growth.



(both)  
Well designed buildings and interior spaces contribute to a healthy and effective environment for learning and collaboration.



(above)  
The adjacent town center can provide retail and services used by residents and the campus community.

(left)  
An integrated town center will provide lively places for college students, staff and faculty and neighborhood residents alike.



### CAMPUS / TOWN INTEGRATION

In the initial planning for Nevada State College, the City of Henderson made it clear that its desire was not just to have the College located within the city, but for the College to be an integrated and vital element of the city. As the City noted, the College can provide learning opportunities for residents of all ages, can be a place for special events and for special facilities such as a library, theater or museum.

The City has been highly receptive to the idea of having the town and college located immediately adjacent to one another, with a nearly invisible boundary between the two. This integration would help avoid a problem which often plagues new colleges of an unnecessary separation between town and campus, resulting in long commutes which discourage walking or bicycling to campus, and where amenities and services needed by the campus population are at a significant distance.

The plan for Nevada State College therefore provides for a closely intertwined pattern of campus and town development, with shared amenities in a walkable environment. In addition the plan for the campus protects the natural features of this location that are highly valued by local residents including views of and access to the natural desert environment.

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#### RESPECT FOR THE DESERT ENVIRONMENT

Nevada State College occupies a spectacular desert site at the edge of the City of Henderson. The ecological, cultural and social values associated with this site will be protected through the layout, configuration and treatment of campus site and facilities.

Consistent with the goal of sustainability and carbon neutrality, the campus will retain its desert character, utilizing native vegetation wherever possible, which by definition will require little water and will remain a habitat for relevant species.

In addition, connections to the adjoining natural lands will be provided. Currently the natural lands beyond the campus are utilized by the larger Henderson community for recreation including hiking, bicycling and horseback riding. Connections around and through the campus will be retained to provide access to this magnificent desert resource to the campus and adjoining communities.



(above)  
The desert environment of the site will be protected; campus buildings and site improvements will fit appropriately.

(left)  
Hiking, bicycling and equestrian trails will be provided around and through campus.



(above)  
The campus will be integrated with the desert environment; buildings, landscaping and other site improvements will be designed to educate students and the public about this environment and how to sustain it.

(right)  
Students can participate in climate change and green technology research in Nevada State College's state of the art laboratories.



### CAMPUS AS EDUCATIONAL LABORATORY

The NSC site offers tremendous opportunities for the campus to serve as a living laboratory for learning. The desert environment itself and the way the campus will sit lightly on the land, becoming integrated with it, will hold many lessons for students as to appropriate ways of living in this environment.

If uses such as a “health campus” or green technology businesses grow nearby, there will be opportunities for internships and job training.

Perhaps most importantly, the commitment of the College to be sustainable and carbon neutral presents a profound opportunity to be a model of appropriate development in Clark County and the southern Nevada region, providing examples of energy-efficient and zero emissions buildings, climate appropriate landscapes, and infrastructure systems designed to address Nevada’s and the nation’s challenges in energy, greenhouse gas emissions and water conservation.



MISSION DRIVE

SAN BRUNO

SAN EDUARDO

SAN GABRIEL

SANTA HELENA

SANTA YNEZ



SAN MIGUEL

SAN ANDREAS

NEVADA STATE DR.

CONESTOGAWAY

FOOTHILLS DR.

BOULDER HIGHWAY

Dawson Building

UPRR TRACK

PARADISE HILLS DRIVE

Liberal Arts & Sciences Building

College Site