

Crafton Hills College - Outcomes Assessment Report

Program/Service Area: Maintenance and Grounds

Year: 2011-2012

The Maintenance and Grounds Departments have made significant progress in achieving the Goals previously set at the last Planning, Program Review (PPR) in 2008. The objectives and goals set at the 2008 PPR were:

Objective 1. We will understand and control our operations by managing personnel and supplies more efficiently.

- Action 1a. Implement a system to track and control supply inventories.
- Action 1b. Input equipment assets into computer maintenance management software.
- Action 1c. Hold monthly team meetings with Maintenance, Grounds and Custodial staff to review needs and communicate expectations.

These objectives and goals have been integrated successfully into the operations of the Maintenance and Grounds Departments. Better inventory control has been achieved in the placing of all lighting components in a common area at the Maintenance and Operations building. The previous practice of having lighting components stored in the custodial areas of each building made the tracking of inventories extremely problematic. Also, the past practice of storing the used light bulbs in the custodial areas of each building made the disposal of these materials inefficient. The current system requires all used lighting components to be returned to the Maintenance and Operations building for proper handling and disposal. This simple system of operations has reduced the lighting stock needed on campus and has also increased the productivity of the maintenance and custodial personnel by having all lighting stock stored in one place. This also makes the restocking of supplies more efficient. The returning of used lighting components, which is considered "universal waste" by regulatory agencies, has brought CHC into compliance with the San Bernardino County Fire Department - Hazardous Materials Division. These universal wastes are now picked up quarterly by a vendor and recycled or disposed of properly as required. The storage of pesticides, fertilizers, paints and flammable materials are also managed in a similar way. The pesticides are all stored in a locked container as required by the Department of Pesticide Regulation. Fertilizers are stored in a single location, which makes inventory control more efficient. Paints and flammable materials are stored in locked areas that help consolidate supplies and keep CHC in compliance with the governing entities. Used oils and other materials considered as hazardous waste are stored in a single location at the Maintenance and Operations building with all of the appropriate labels and controls. These material storage areas were inspected by the San Bernardino County Fire CUPA inspector in March of 2011. There were no fines issued to CHC, with only minor recommendations addressing labeling of containers. These issues were corrected and CHC is in full compliance at this time.

The Maintenance Connection Program has been constantly updated to include all current assets of the CHC campus. New buildings are added to the database in order to facilitate that work orders being processed contain all pertinent information for the efficient response by the maintenance technicians or groundsman. This constant updating of the Maintenance Connection Program is being coordinated with

the close cooperation of the Technologies Services Department. The Tech Services Department and the Maintenance Department have many interconnecting responsibilities that require multidepartmental cooperation. These multidepartmental responsibilities include the continual updating of HVAC controls, lighting controls, computer room A/C, continuous updating of the Maintenance Connection Program, emergency power generation, and electrical backup systems. This close cooperation is vital to the overall success of the learning environment of the CHC campus.

The Maintenance and Grounds Departments have initiated weekly and monthly team meetings. The weekly meetings cover the normal safety awareness programs (tool handling, proper lifting techniques, electrical practices, etc.). These meetings allow for the Maintenance and Grounds Departments to coordinate any upcoming events or issues and also gives a forum for the past week's success or failures to be reviewed. This combined departmental meeting is very instrumental in building a more cohesive environment for both departmental teams. The monthly meetings are coordinated by the SBCCD Environmental Health and Safety Administrator (EHSA), with the assistance of the CHC M&O Supervisor. These meetings usually cover any required safety awareness trainings for recertification or review, in addition to reinforcing the team building of the Maintenance and Grounds Departments.

Objective 2. We will increase training for the safety of employees and better utilization of equipment and supplies.

- Action 2a. Develop a yearly safety training schedule illustrating the frequency of required safety training.
- Action 2c. Hold weekly safety awareness meetings and monthly safety meetings per the yearly safety training schedule.

As stated previously, these goals and objectives are fully integrated into the operation of the Maintenance and Grounds Departments. The SBCCD EHSA has developed a yearly schedule of training to keep the M&O personnel up to date with any safety requirements. This additional help from the District has been instrumental in keeping the yearly trainings pertinent and interactive. This approach to safety training being administered by District employees (EHSA and M&O Supervisor) has been very effective compared to the past use of a contractor (Keenan) that did not have a more interactive program for maintaining safety training relevancy.

Objective 3. Upgraded equipment will be provided and additional staff will be hired as facilities are increased.

- Action 3a. Develop a prioritized list of equipment needing replacement and new equipment required. Identify funding and develop a plan to obtain equipment.
- Action 3b. Review current staffing levels compared to industry standards. Develop a plan to adjust staffing as required as new facilities are constructed.

The objective to continually upgrade the CHC Maintenance and Grounds equipment is a valid and worthy course of action. However, with the current budgetary constraints being experienced on the CHC campus and the San Bernardino County Community College District as a whole, a systematic approach to modernizing the more expensive equipment and vehicles cannot be implemented at this time. Smaller upgrades are being done when a particular piece of equipment fails or is deemed unsafe to use. The Maintenance and Grounds Departments have done a remarkable job of maintaining the equipment on the campus. For example, the tractor that was purchased when CHC was opened in 1972 is still in

service, and the HVAC systems installed in the '70s, which were expected to have a working life of 25 years, are still operational and functioning. However, at some point the replacement of equipment will have to be addressed either systematically or as an operational necessity. The M&O Supervisor, with the assistance CHC Office of Administrative Services, should proceed with developing a systematic approach to equipment upgrades even though funding is currently not available. This plan could be used to facilitate potential funding resources and identify equipment that is most likely to fail or equipment that is considered critical to completing the mission of the Maintenance and Grounds Departments. Further action on this objective is necessary.

The staffing requirements needed to complete the mission of the Maintenance and Grounds Departments are at a minimum. We were able to locate a schedule showing Grounds and Custodial staffing. This schedule compares the staffing averages to the actual square feet (sq ft) of campus buildings. The total current buildings sq ft of the CHC campus is 414,435 sq ft/5 Groundsmen. This is 82,887 sq ft per Groundsman. This is close to the overall total average sq ft per groundsman (78,264.14) for the schedule shown. This would place the current staffing levels in alignment with the campuses listed on the schedule. However, this comparison does not show the acreage of those respective campuses, which would be a more accurate comparison. No schedules of Maintenance Technicians has been located at this time. The Maintenance Department has lost a full-time position since the last PPR and the Grounds Department lost one position when the golf course was closed. Although the amount of attention to the manicured acreage has changed in the old golf course area, an additional 17 acres was added with the addition of the new Learning Resource Center (LRC) in 2010. This causes additional manpower to maintain 103 acres of grounds on the campus. These additional greenbelts surrounding the campus require maintenance that cannot be done by machines or with chemical controls. This has more than offset any reduction in responsibilities accomplished by a reduction in size of the golf area. The addition of a part-time student worker (funded through the Financial Aid Office) has helped in the short term to alleviate the increase in additional grounds to maintain. It is not known if this program of having student workers to help with this imbalance will continue. Eventually the filling of the lost maintenance worker and adding another full-time Groundsman will be required as the CHC campus continues to expand.

Objective 4. The reorganization and better utilization of the building at the Maintenance and Operational area (PAD) will increase productivity and lower operational costs.

- Action 4a. Plan and implement the organization of the "bays" at the Maintenance facility building (PAD). Establish one day each month for M&O staff to work together on the organization of the bays.
- Action 4b. Surplus accumulated furniture and equipment. Salvage, remove, or dispose of unnecessary items.
- Action 4c. Review and evaluate facility vehicles. Develop a plan for replacement of larger gas vehicles with electric carts.

The ongoing reorganization of the Maintenance facility or PAD is an absolute necessity. The PAD is currently congested with material stored from the last four decades of operations at CHC. Additionally, an inspection by OSHA in August 2009 identified several areas that were being utilized for materials and data storage as unfit for the loads that were placed upon them. This has caused these items to be placed in other areas or discarded. The remaining materials, containing most of the old CHC building documents, owner manuals, etc., have become stored in a very fractured process. This has made the recovery of information needed for operations and repairs problematic. Within the last year there has

been some progress made in the organization of materials. As stated previously, the lighting components have been consolidated into one location. Most of the CHC building plans and turnover documents from the new buildings are stored in a single area. Other gains have also been made. The Maintenance and Grounds Departments have recycled over 24,000 lbs of steel ([Click on this link to view a sample - Recyclable Receipt](#)), consolidated the storage of fertilizers, consolidated the grounds materials areas and discarded two 40-yard waste containers of unnecessary, nonrecyclable materials. Most of the storage containers at the PAD have been inventoried for contents, and the other materials stored outside have been consolidated. This has made the bays more useful and safe. The continued attention to the storage of materials and removing unnecessary materials will need to be continued to allow for the influx of building components to be stored for reuse when the campus begins the process of refurbishing the existing buildings. Currently there is no space to store any tables, chairs, desks, or interior design components indoors. The new CHC Master Plan has identified the Maintenance and Operations Facility for some upgrades. Exactly what will be finally funded has yet to be identified. The addition of extra storage space or the reutilization of existing facilities at the Maintenance and Operations buildings will be necessary to optimize the salvaging of reusable materials from the existing buildings when they are refurbished.

The review and evaluation of facility vehicles will continue to be a difficult area given the ongoing financial constraints. Some vehicles currently being used were manufactured in the early '90s. These vehicles have very limited mileage but do not operate efficiently or are of a large size that is not required for most service operations. An obsolescence plan should eventually be adopted by CHC. The goal of converting to an all-electric fleet of service vehicles will be an expensive process. There are some offsetting considerations that might eventually enhance this option. The reduction of the current fleet to vehicles that will only be used on campus will have the benefit of no longer requiring vehicle smog inspections or insurance to be operated on public highways. These smaller, more efficient and cost-effective vehicles are ideal for most of the service applications done by the Maintenance, Grounds, and Custodial Departments. The Maintenance and Operations facility also has a compressed natural gas (CNG) station that might make the use of vehicles that operate on CNG a cost-effective alternative to an all-electric fleet. The adoption of an obsolescence plan for vehicles will remain to be a goal of the Maintenance and Grounds Departments.

Objective 5. Better governmental compliance.

- Action 5a. Perform a safety audit of facilities and programs to identify areas where improvement is required.
- Action 5b. Review safety audit report and implement a plan to become fully compliant.

The governmental agency mandates that must be incorporated into the operation of the Maintenance and Grounds Departments are many and varied in their scope. These include certification of back flow devices for the domestic water system (City of Redlands Water Department), inspection of the sewer system (San Bernardino County Special Districts Department), inspection of fire alarm systems (San Bernardino County Office of the Fire Marshall), annual certification of all campus elevators (State of California, Department of Conveyance), the handling, storage and removal of universal and hazardous wastes (San Bernardino County Fire Department, Division of Hazardous Materials and EPA), operation and maintenance of HVAC equipment and emergency generators (AQMD), the use, handling and storage of pesticides (State of California, Department of Pesticide Regulation), the runoff of campus storm drain water (State of California, Water Resources Board), the operation and implementation of safety controls

for campus personnel (OSHA and Cal/OSHA), the annual certification of laboratory fume hoods (Cal/OSHA), and bi-annual smog inspections for department vehicles (DMV). This level of governmental controls provides for a more safe and higher quality of campus operations. However, managing these various inspections and permitting processes is extremely challenging and time-intensive. The Maintenance Connection Program is used to issue reminders for the periodic services that the Maintenance and Grounds Departments must perform weekly, monthly, etc. Predetermined periodic work orders are issued for the specific time interval that is required. The use of the campus-wide calendar system is also used to set scheduling notices for the M&O Supervisor. This concerted level of actions has brought the CHC campus up to a high level of governmental compliance and no fines have been issued to the CHC campus from any governmental agencies in the last year. This program of compliance will continue to be a priority in the operations of the Maintenance and Grounds Departments.

The need to develop a review of safety operations has also been brought up to a higher level of compliance. This was reviewed at the campus and district level, which has brought about some significant changes since the last PPR. The implementation of the weekly safety meetings and the adoption of continuous monthly trainings has been successful in keeping the personnel of the Maintenance and Grounds Departments operating with a safe mindset. The M&O Supervisor and the VP of Administrative Services are on the CHC Safety Committee. This has the campus-wide effect of keeping the Maintenance and Grounds Departments closely linked on any safety concerns that might be particularly pertinent to their operations. The establishment of the new position at SBCCD of Environmental Health and Safety Administrator (EHSA) has been extremely helpful to the CHC M&O Supervisor in continually keeping the Maintenance and Grounds personnel working safely in daily operations. The EHSA has recently had the Groundsmen participate in a hearing protection program review. This analysis had each Groundsman wear a device that recorded the decibel levels that each Groundsman experienced in a typical day. The results are currently being analyzed to determine if any additional hearing protection will be required. In September of 2011 the EHSA and the M&O Supervisor met with several safety engineers to review the fall protection systems at CHC. Several recommendations were made and implemented by the M&O Supervisor. One of the results of this review identified the additional need for a comprehensive review of roof access and the need for additional controls needed for fall protection on all CHC buildings. This additional fall protection program is in the design stage and will be initiated at the CHC campus when the final process is completed. These new programs adopted by the Maintenance and Grounds Departments has and will continue to keep these departments operating in a proactive, safe working environment.