



De Anza Grounds
Finance & College Operations
Program Review
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Mission

The Mission of the Grounds Department is to provide safe, clean, aesthetically pleasing and professionally well maintained campus grounds; grounds that are environmentally safe, conducive to life-long learning and user friendly to students, faculty, staff and visitors.

Role and Function

The Grounds Department functions as the keepers and stewards of the 112 acres that comprise the De Anza College grounds. As such the unit is tasked with the following service functions; picking up trash, *garbage collection, *recycle collection, cleaning storm drains, planter beds as well as planting, pruning, trimming, mowing and the general care and maintenance of the campus plant life.

The Grounds Department also performs tasks that are not explicitly within the scope of the department yet are important to college life, such as hanging banners, pulling out bleachers and equipment setup for the PE Department.

*Grounds working in cooperation with the Custodial Department and our refuse hauler 'Recology'. We are streamlining our recycling process composting and waste disposal methods to maximize recycling using 'single-stream', increasing the diversion percentage from our waste stream. Using compactors rather than roll-off containers or dumpsters significantly reduces our carbon 'footprint'. Enhancing the composting program by transferring the process from on-campus collection and composting to Recology's offsite composting, significantly increases the type and amount of material we compost from approximately 2

tons of kitchen scraps per month diversion, to a much larger percentage of the overall waste stream.

Descriptive Summary

Currently the Grounds Department is staffed with six FTE's. Five Grounds Gardener/Maintenance staff members maintain a total of 81.8 acres or 16.4 acres per Grounds Gardener/Maintenance staff member. This is up from an original 9.09 acres per staff member prior to budget cuts and staff reductions.

Functionally the 81.9 acres are used in the following manner:

Landscaped area	28.5 acres
Athletic Facilities	10.1 acres
Parking Lots and Roadways	<u>43.2 acres</u>
	81.8 acres

The remaining 30.2 acres are buildings.

The six Grounds positions fall into the following classifications:

- 1 Grounds Supervisor
- 2 Grounds Gardener II
- 1 Grounds Gardener III
- 1 Grounds Maintenance (equivalent of Grounds III w/Custodial training)
- 1 Grounds IV

The Grounds Supervisor manages the unit, prioritizing and scheduling the daily and seasonal work assignments.

Shifts

6 A.M. - 2:30 P.M. 4 crewmembers: Monday-Friday
1 crewmember: Tuesday-Saturday

6 A.M. – 2:30 P.M. Grounds Supervisor: Monday-Friday

Strengths

- Newly Landscaped areas w/state-of-the-art irrigation systems
- Crew has staff with longterm familiarity with campus
- Crew has staff with professional training in horticultural and plant husbandry
- Crew that is dependable and available for seasonal events
- Flexibility that promotes the efficient use of time and human resources
- Ability to respond to emergency situations quickly

- Organization of crew into a single cohesive work team
- A proactive seasonal maintenance program with a current inventory of trees

Weakness

- Staff that lack of professional training in horticultural and plant husbandry
- Shortage of specific technical irrigation and horticultural skills among staff
- Limited ability to institutionalize calendar of major work tasks
- Antiquated irrigation systems requiring manual operation and ongoing repairs
- Large population of trees needing seasonal and structural pruning by arboricultural skilled staff (outsourced)

Although the Grounds Department has a supervisor with both field experience and horticultural education background, the department has lost its Head Grounds-Gardener position, an Irrigation Specialist as well as 2 Grounds gardeners with long term familiarity of campus grounds. As additional landscaped areas are brought on line through measure C building and renovation projects the impact of the loss of these positions becomes more obvious.

Quantitative Measures

The Grounds Department has quantitative workload service level measurements based on specific tasks. Evaluating tasks for each area is a functional characteristic of the particular type of grounds area, e.g., parking lots and roadway acreage, landscaped acreage or athletic facilities. Two essential factors determine staffing requirements for the particular type of Grounds area. The first is the **type of area** that must be maintained and the tasks associated with that area e.g., sweeping parking lots and roadway acreage or trimming shrubs in landscaped acreage, and mowing athletic fields. The second is the amount of care provided based on **functional characteristics**.

Integrating these two essential factors facilitates determination of priority the staffing requirements for a particular type of area. The **type of areas** along with their **functional characteristics** can be maintained at a **standardized 'level of attention'** by adjusting the amount of time dedicated to the maintenance tasks associated with the **type of area** and its **functional characteristics** or by adjusting the amount of staff dedicated to the maintenance tasks or doing both.

Standardized Levels of Attention

APPA: The Association of Higher Education Facilities Officers has quantified workload measures into six standardized 'levels of attention'.

LEVEL 1

State-of-the-art maintenance applied to a high-quality diverse landscape. Associated with high-traffic urban area, such as public squares, malls, government grounds, or college/university campuses.

- **Turf Care:** Grass mowed according to species and variety, at least once every 5 days, as often as every 3 days. Aeration required not least than 4 times per year. Reseeding as needed. Weed control to no more than 1% of surface.
- **Fertilizer:** Adequate fertilizer applied to plant species according to their optimum requirements.
- **Irrigation:** Sprinkler irrigated by electronic automatic controls. Frequency follows rain fall, temperature, season length and demands of individual plant species.
- **Litter Control:** Minimum of once per day, seven days per week. No overflowing receptacles.
- **Pruning:** Frequency dictated by species, length of growing season, design concept also a controlling factor i.e., using clipped method vs. natural-style hedges.
- **Disease and Pest:** Controlling objective to anticipate and avoid public awareness of any problem.
- **Surfaces:** Sweeping and cleaning frequency as such that at no time does accumulation of debris distract from look or safety of the area.
- **Repairs:** Done immediately when problems are discovered.
- **Inspections:** A staff member to conduct inspections daily.

LEVEL 2

High-level maintenance. Associated with well-developed public areas, malls, government grounds, or college/university campuses.

Recommended level for most organizations.

- **Turf Care:** Grass cut once every 5 days. Aeration required no less than 2 times per year. Reseeding when spots are present. Weed control to no more than 5% of surface.
- **Fertilizer:** Adequate fertilizer levels to ensure all plants are healthy and growing vigorously.
- **Irrigation:** Sprinkler irrigated by electronic automatic controls. Frequency follows rain fall, temperature, season length and demands of individual plant species.
- **Litter Control:** Minimum of one per day, 5 days per week. Accumulation depends on size of container available to public.
- **Pruning:** Usually done at least once per season, species planted may dictate more frequent attention.
- **Disease and Pest Control:** Done when disease or pest are inflicting noticeable damage or reducing vigorous plant material growth.
- **Surfaces:** Should be kept clean, repaired or replaced when their condition has noticeable deterioration.
- **Repairs:** Done whenever safety, function or appearance is in question.
- **Inspections:** A staff member to conduct inspections daily when regular staff is scheduled.

LEVEL 3

Moderate-level maintenance. Associated with locations that have moderate to low levels of development or visitation, or with operations that, because of budget restrictions, cannot afford a high level of maintenance.

- **Turf Care:** Grass cut at least once every 10 days. Normally not aerated unless turf indicates need. Reseeding done only when major bare spots appear. Weed control to no more than 15% of surface.
- **Fertilizer:** Applied only when plant vigor seems to be low. Low-level application done once per year.

- **Irrigation:** Depends on climate. Areas with more than 25 inches per year rely on natural rainfall. Areas with less than 25 inches per year have some form of supplemental irrigation, normally 2 to 3 times per week.
- **Litter Control:** Minimum service of 2 to 3 times per week.
- **Pruning:** When required for health of reasonable appearance.
- **Disease and Pest Control:** Done only to address epidemics or serious complaints.
- **Surfaces:** Cleaned on complaint basis. Repaired or replaced as budget allows.
- **Repairs:** Done whenever safety or function is in question.
- **Inspections:** Inspections are conducted once per week.

LEVEL 4

Moderate to low-level maintenance. Associated with locations affected by budget restrictions that cannot afford a high level of maintenance.

- **Turf Care:** Low-frequency mowing schedule based on species. Low growing grasses may not be mowed, high grasses receive periodic mowing. Weed control limited to legal requirements for noxious weeds.
- **Fertilizer:** No fertilization.
- **Irrigation:** No irrigation.
- **Litter Control:** Once per week or less, complaints may increase level above one servicing.
- **Pruning:** No regular trimming. Safety or damage from weather may dictate actual work schedule.
- **Disease and Pest Control:** None, except where the problem is epidemic and epidemic conditions threaten resources or the public.
- **Surfaces:** Replaced or repaired when safety is a concern and budget is available.
- **Repairs:** Done whenever safety or function is in question.
- **Inspections:** Conducted once per month.

LEVEL 5

Minimum-level maintenance. Associated with locations that have severe budget restrictions.

- **Turf Care:** Low-frequency mowing schedule based on species. Low growing grasses may not be mowed, high grasses receive periodic mowing. Weed control limited to legal requirements for noxious weeds.
- **Fertilizer:** No fertilization.
- **Irrigation:** No irrigation.
- **Litter Control:** On demand or complaint basis.
- **Pruning:** No pruning unless safety is involved.
- **Disease and Pest Control:** No control except in epidemic or safety situations.
- **Surfaces:** Serviced only when safety is a consideration.
- **Repairs:** Done whenever safety or function is in question.
- **Inspections:** Inspections are conducted once per month.

Grounds Staffing Guidelines

Previous staffing reductions dictate the level of attention the De Anza Grounds Department can provide. Diligent organization prioritizing “high traffic areas” and supervision assigning regular work schedules to a cohesive team of dedicated staff can support a higher level of service, particularly in areas where recent construction and landscape renovations have developed more sustainable native plant species with designs developed with low or minimal maintenance requirements incorporated into the campus infrastructure. Overall De Anza Grounds continues to maintain the landscape at a “Level 3” with regard to APPA standards. In some instances maintenance of Grounds related functions are at a “Level 2”, due to previous infrastructure upgrades such as our computerized irrigation system with automatic weather station adjustments. Any significant degree of absenteeism or further reductions in staffing dictate that certain areas are maintained closer to a “Level 4” APPA standard.

Qualitative Measurements

Grounds Operations is qualitatively measured by weekly informal walk-through inspections of the campus grounds. The department's staff continues to provide adequate service to the facilities despite increasing workloads through enhancing supervision and greater utilization of motivational techniques, along with increasing priority assessments for better organization of daily work tasks.

The distribution of customer surveys to sample groups of employees shows 73% of survey respondents find campus Grounds to be aesthetically pleasing. The results of future surveys will be included in future program reviews and will include whether sample groups find areas and walkways not only aesthetically pleasing and conducive to life-long learning objectives yet also whether sample groups find areas and walkways safe.

Implementation of the campus Sustainability Management Plan in correlation with comparisons to similar educational institutional program successes will allow for a gage in the success of our Grounds Department support services. Comparisons can be made through membership in organizations such as the Association for the Advancement of Sustainability in Higher Education.

Maintaining LEED certification standards for all Measure C expansion and improvement projects will also identify the quality of our landscaped areas in support of safe, life-long learning and user friendliness to students, faculty, staff and visitors.

Trends

- Completion and implementation of a campus-wide computerized irrigation system, along with native landscape additions for all Measure C expansion and improvement projects.
- Continue planting native and adaptive plant species that are drought tolerant and more suited to the campus' micro climate.
- Change landscaping practices and techniques to those that are more environmentally sensitive and supportive of academic programs.
- Move away from pesticides and herbicides with the development and implementation of an Integrated Pest Management program.
- Move to artificial turf, promoting water conservation, low maintenance athletic fields.
- Move toward better waste management practices so that more solid and green waste is composted and a greater amount of nutrients are maintained within the campus landscape, keeping the cycle in balance.
- Staff training to increase knowledge of horticultural, plant husbandry and landscape maintenance techniques that support a more natural and environment friendly urban landscape environment.

Planning Agenda

- Continue training program for the Grounds Crew in horticultural management, low maintenance landscape practices and resource conservation efforts.
- Equipment purchase and replacement program incorporating routine maintenance and repair program.
- Customer (student, staff) satisfaction surveys with avenues for suggestions of improvements encouraged by a transparent service support program.
- Native species planting and tree replacement program with ongoing support and collaboration with academic programs such as Science, Biology and Environmental Studies.
- Program for routine, seasonal tree maintenance program developed through inventory of existing population and promotion of species diversity through planting and transplanting.

Comments

Optimization of the role and function of the Grounds Department is ongoing with the restoration of skilled Grounds positions. Future equipment needs of the department have been met with new equipment purchases including a new mulching mower. Coordination with Recology (Campus Waste Hauler), in the replacement of collection receptacles i.e., **dumpsters and roll-off containers** for composting, recycling and waste to “single-stream” **compactors** to decrease the overall campus “carbon footprint”, with increases in education for campus community in recycling and composting procedures through single-stream waste removal will enable the Grounds Department to increase the effectiveness of recycling and composting efforts, redirecting the flow of a greater percentage of our waste stream to reuse and recycling and away from landfills. Improvements in service levels with the expansion of sustainable practices e.g. composting, integrated pest management, water conservation will all help to support grounds that are environmentally safe, **conductive to life-long learning** and user friendly to students, faculty, staff and visitors.

Strategic Planning

1. How does your program or service respond/address the College’s Strategic initiatives? Management of campus grounds along with the services the Grounds Department provides supports the college’s strategic initiatives to increased retention of new and returning target-group students. This includes maintaining aesthetically pleasing and safe landscape areas that are conducive to the learning environment. Grounds also uses sustainable procedures and

processes in its operations that support current trends that help to empower students and staff to remain informed of prominent issues of present day society, as well as, the future needs of industry and potential employers. Grounds' also provides the athletic field maintenance necessary for the promotion of physical education activities not only for college students, but also for specialty sports programs and community events.

2. Which initiatives does your program or service respond to and in what ways can the response be measured or evaluated?

The Grounds Department responds to the various campus programs that focus attention on current, vital and relevant needs of our students, staff and community by supporting an infrastructure that promotes social, economic and environmental issues faced in every day, real life situations with the use of sustainable practices, procedures and policies the department uses. One way to evaluate the effectiveness of the departments' processes is through organizations such as the Association for the Advancement of Sustainability in Higher Education that link similar educational institutions' effectiveness based on the similar sustainable practices and procedures.

3. How does the work of your program, or service respond to increased access, growth, retention and or student equity?

Increases in student access, growth and retention are incorporated into the Grounds Department specific functions and services through adjustments in work priorities and schedules. Policies and standardized procedures, along with improvements to campus infrastructures, as new buildings that come on-line, are renovated, with upgrades in irrigation and the use of native plant materials, allows for low maintenance landscaping and more effective use of scarce resources. Establishing programs for increasing the diversion of solid waste through recycling and composting of Dining Services materials, not only enables a self-sufficient campus community, but also promotes and endorses the expansion of those practices out into the community through staff training and throughout society as students graduate, transfer and continue a life-long learning trend.

4. What other programs/services are you working with to accomplish your proposed goals/outcomes?

The Grounds Department works with the Environmental Studies program to promote sustainable practices and procedures. The "real world" disconnect, isolation of classroom lectures and text book dependent teaching methods is overcome through the coordination between academics and the services the Grounds Department provides to the college community. Environmental Studies offers courses which teach methods of landscaping with native and adaptive plant species that the Grounds Department also uses to conserve scarce resources. Composting methods to amend the soil nutrients of native planting beds throughout campus is a perfect example of how the Environmental Studies Department can advocate the use of sustainable practices to create a balance in the local urban environment. With the enhanced recycling, composting and waste diversion offered by Recology,

the Grounds Department is able to obtain nutrient rich soil amendment that is readily available for campus plants to use for healthy, vigorous growth and lessen the need for chemical fertilizers, thus creating a completely sustainable nutrient replacement cycle.

5. What is important to understand about your program, or service and the consequences to the college if it was discontinued or reduced? Reducing services provided by the De Anza Community Colleges Grounds Department further would seriously affect the college's ability to maintain grounds that are environmentally healthy, safe and conducive to life-long learning and user friendly to students, faculty, staff and visitors. Reductions in the services Grounds supplies would have an immediate and serious impact on campus grounds safety and sanitation levels. The aesthetic appeal of the entire campus would degrade significantly. A decrease in sustainable practices the grounds department uses would increase operational costs to the college in regard to both simple maintenance and in maintaining environmental health and safety. Eliminating the composting program would reduce the availability of a cost-free nutrient source for the campus landscape areas. Substituting the compost or soil amendment with commercial fertilizers would increase operational costs. Eliminating the use of soil amendments would create stress throughout the landscaped areas decreasing plants ability to fight off disease vectors further stressing the plantings and creating an avenue for accelerated loss of valuable plant materials. In larger trees die-back often results in serious risk to the safety of pedestrians from limb failure. The lack of trash and recycling collection would become immediately apparent with any further reduction in Grounds staffing. Outsourcing the services Grounds provides is cost prohibitive and would eliminate response to the needs of the campus community in a timely manner.

**Grounds Department
Administrative Unit Outcomes
March 2016**

The Mission of the Grounds Department is to provide safe, healthy, clean, aesthetically pleasing and professionally maintained campus grounds; grounds that are *environmentally safe, *conducive to a life-long learning environment. An environment that is *user-friendly to students, faculty, staff and visitors particularly visitors and the surrounding *community.

- * Long Term Environmental Health and Safety (Sustainable)
- * Professionally Maintained Grounds Conducive to Life-Long Learning
- * User Friendly to Students, Faculty, Support Staff and Visitors

*As a Community College Provides a Service to the Community

Removal of tree hazards on a rotation basis, sweeping of walkways and maintenance of hardscape including walkways for a safe environment, free of trip hazards, with reduction of the potential for injury or property damage from improper maintenance or tree care.

Use of a significant percentage of composted waste stream for use as organic fertilizers, limiting the need to purchase expensive commercial fertilizers. This also reduces the overall cost of materials (synthetic fertilizers).

Promotion of native or adaptive plant species, not only to provide an aesthetically pleasing learning environment, yet also, to minimize irrigation requirements and the conservation of scarce resources. An environment useful for learning resource conservation practices and the benefits of sustainable plant life will better prepare students and visitors not only to succeed, yet thrive in a rapidly changing society.

Signage maintenance and improvements provides for a more user-friendly campus infrastructure. Friendly, engaging Grounds staff that help to make students feel welcome and comfortable on campus. Operational activities such as recycling programs along with cooperative efforts between students and operational staff help to promote well-rounded students as well as staff while embracing diversity.
