

**Exhibit 2**  
**CITY OF SANTA CLARITA POPULATION ESTIMATES AND PROJECTIONS**

Year	Population	Annual Change		Households	Population/ Household
		Number	Percent (cpd)		
<u>Census (4/1)*</u>					
1990	110,642			38,474	2.84
2000	151,088	4,045	3.16	50,787	2.95
<u>Jan. 1st:</u>					
2007**	177,158	3,862	2.39	56,715	3.10
<u>Projections (1/1)</u>					
2010***	180,671	1,171	0.66	59,100	3.03
2015***	192,429	2,352	1.27	64,028	2.98
2020***	204,046	2,323	1.18	69,278	2.92
2025***	215,456	2,282	1.09	73,591	2.90
2030***	226,683	2,245	1.02	77,639	2.90
2035***	237,529	2,169	0.94	80,984	2.91
<b>Projections by City Planning Department****</b>					
Buildout	237,750	n.a.		n.a.	n.a.

Sources: \* 1990 and 2000 Censuses of Population.

\*\* State of California, Department of Finance estimate.

\*\*\* SCAG DRAFT 2007 Integrated Growth Forecasts. These are draft estimates and are subject to change pending approval of the Regional Transportation Plan in late 2007/early 2008.

\*\*\*\*City of Santa Clarita, 2007

\*\*\*\*\*Estimated by the Consultant based on 2007 population ratio in group quarters and ratio of occupied housing units.

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**Exhibit 1**  
**DEMOGRAPHIC TRENDS IN THE CITY OF SANTA CLARITA**

Item	City of Santa Clarita			Los Angeles County			% change		
	1990	2000	2007	1990	2000	2007	1990-2000	2000-2007	2000-2007
Total Population	110,642	151,088	177,158 **	8,663,164	9,519,338	10,331,939 **	7.4	8.5	6.1
Occupied Housing Units	38,474	50,787	56,715 **	2,989,552	3,133,774	3,239,511 **	4.8	3.4	6.1
Persons Per Household	2.84	2.95	3.10 **	2.91	2.98	3.13 **	2.4	5.0	16.7
Median Household Income	\$52,970	\$66,717	\$79,830	\$34,965	\$42,189	\$49,246	20.7	16.7	6.1
Percent of Population by Age:									
Under 5 years	8.9	7.8	7.5	8.3	7.7	7.6	0.2	6.1	6.1
5 to 9 years	8.1	9.2	7.6	7.3	8.4	7.4	23.8	-5.0	-5.0
10 to 14 years	7.0	8.7	8.6	6.6	7.6	7.8	23.6	11.1	11.1
15 to 17 years	4.0	4.6	5.1	4.0	4.3	4.5	13.4	13.7	13.7
18 to 20 years	4.5	4.0	4.6	5.0	4.4	4.4	-5.0	9.4	9.4
21 to 24 years	5.8	4.2	5.4	7.3	5.9	5.5	-13.3	2.0	2.0
25 to 34 years	20.4	14.2	10.8	19.8	16.6	14.2	-10.0	-7.2	-7.2
35 to 44 years	18.6	19.4	16.3	15.1	16.0	15.4	13.5	4.7	4.7
45 to 54 years	10.7	13.9	15.8	9.6	12.1	13.6	35.9	22.5	22.5
55 to 64 years	5.8	6.9	10.1	7.3	7.3	9.4	7.5	39.6	39.6
65 years and over	6.2	7.1	8.2	9.7	9.7	10.2	7.7	14.0	14.0
Median Age	30.7	33.4	35.3	30.7	32.0	34.0	4.2	6.3	6.3
Percent of Population by Race:									
White	87.3	79.5	77.7	56.8	48.7	46.9	-7.9	4.6	4.6
Black	1.5	2.1	2.3	11.2	9.8	9.0	-6.3	0.4	0.4
Asian/Pacific Islander	4.2	5.4	6.2	10.8	12.2	13.2	22.0	17.4	17.4
Other	7.0	13.0	13.9 *	21.2	29.3	30.8 *	48.2	14.1	14.1
Percent Hispanic Origin:	13.4	20.5	23.1	37.8	44.6	47.3	26.6	15.3	15.3
Percent of Households That Are:									
Families:	75.2	75.3	75.3	67.4	68.2	68.2	6.1	3.4	3.4
Families with Children <18	43.1	46.7	46.8	37.8	40.9	41.0	2.3	3.5	3.5
Non-Families:	24.8	24.7	24.7	32.6	31.8	31.8	2.2	3.4	3.4
Households with Children <18	43.7	47.1	47.2	38.2	41.3	41.3	13.4	3.5	3.5
One Person/Household	18.1	18.7	18.9	25.0	24.6	24.6	3.5	3.2	3.2
Percent of Households That Are:									
Owners	75.7	74.7	75.1	48.2	47.9	47.6	4.1	2.7	2.7
Renters	24.3	25.3	24.9	51.8	52.1	52.4	5.5	4.0	4.0
Median Housing Value	\$233,300	\$229,200	\$519,640	\$226,400	\$209,300	\$458,539	-7.6	119.1	119.1
Median Rent	\$759	\$942	n.a.	\$570	\$704	n.a.	23.5	n.a.	n.a.

\*Other category in 2000 and 2007 includes those persons identifying with 2 or more races and is not strictly comparable to 1990. \*\* Calif. Dept of Finance Estimates

Source: 1990 and 2000 Censuses of Population and Housing  
2007 estimates by Claritas, Inc. except as noted.

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*Findings and Recommendations Regarding*  
**Maintenance Standards and Practices**  
**Department of Parks, Recreation and Community Services**  
**City of Santa Clarita, California**

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**May 2008**

Appendix

## **National Park and Recreation Maintenance Standards**

### **Evolution of Mark Maintenance Standards**

An April 1980 publication entitled *Maintenance Impact Statement Handbook* published by the United States Department of the Interior, Heritage Conservation and Recreation Service, focused on “operations and maintenance costs and how to establish a policy to consider those costs during all phases of decision-making.” The report states that, “inadequate funding for operations and maintenance may be the most critical issue facing park and recreation agencies.” It recommended that park and recreation agencies prepare a *Maintenance Impact Statement* to specify the dollar costs to the agency and taxpayers of operating and maintaining proposed park and recreation facilities and programs. The publication was a response to the common practice of park and recreation agencies committing funds for construction of new parks and facilities with little or no planning for funding maintenance and operating costs. This practice of capital funding with no planning for operating funds was “encouraged” through Federal matching grant programs that were readily available to local public park and recreation agencies beginning in the 1960s through the early 1980s.

In 1986, the National Recreation and Park Association (NRPA), the American Park and Recreation Society, and the National Society for Park Resources prepared a publication entitled *Park Maintenance Standards*. This document included a set of recommended maintenance standards for park and recreation operations. By 2001, however, NRPA recognized that set standards did not work in all park and recreation settings. There were too many differences or variables that affect maintenance management in individual operations. These include environmental (climate, topography, soil types), social, and financial circumstances.

### **Current Maintenance Guidelines**

The National Recreation and Park Association’s *Guide to Standards for National Accreditation* states that:

“There shall be a comprehensive park and recreation system plan, which is basically an inventory of existing conditions and recommendations for future programs and services, acquisition and development of areas and facilities, and administration. The plan shall be officially adopted by the appropriate governing body, updated regularly, and be linked with a capital improvement budget with a phased development.”

NRPA further states that:

“An agency should have a strategic plan, approved by the board, stating how the agency will achieve its goals and objectives.”

Thus, the park master planning process should be comprehensive, periodically updated, and linked to capital improvement budgeting.

A new publication entitled *Operational Guidelines for Grounds Maintenance* was prepared and published in 2001 by The Association of Higher Education Facilities Officers, National Recreation and Park Association, and Professional Grounds Management Society with assistance

from the American Public Works Association. This publication is based on the following premise: “We are the stewards of the environment that we maintain, and we must constantly be aware of the effect our management strategies have on it.” Thus, the focus of guidelines in this publication are on the environment and “sustainability.” The following are key guidelines discussed in this publication.

1. ***Good maintenance is based on a “cycle of continuous process improvement.”*** The steps in this process include the following (page xiii):

- Conduct an inventory of operations
- Determine maintenance approach
- Review environmental issues
- Determine levels of maintenance
- Conduct benchmarking
- Determine grounds staffing levels
- Write position descriptions; hire and train appropriate staff
- Make outsourcing decisions
- Commit to proceed with the plan and maintain environmental stewardship

2. ***The new guidelines emphasize environmental stewardship through energy conservation and recycling.*** More specifically, a set of suggested actions for “organizational greening” include:

- Solid waste reduction and recycling
- Purchasing only what is needed and buying “environmentally friendly” products
- Water conservation
- Proper handling and disposal of hazardous materials
- Encouraging carpooling and alternative transportation as well as conversion of fleet vehicles to alternative fuels
- Minimizing use of disposable dinnerware in foodservice operations;
- Protecting natural areas including woodlands, wetlands, watersheds, and wildlife as well as promoting “natural succession” for unneeded lawn areas to reduce grass cutting
- Exceeding energy codes in new construction, recycling construction or demolition waste, and designing “environmentally friendly” buildings
- Locating structures so they are convenient to the population being served, minimizing negative impacts on natural ecosystems, utilizing water-efficient landscape plantings, and allowing for solar access in building site selection and orientation (pp. 10 – 11).

3. ***Selection of a maintenance approach*** - zone (assigning a specific supervisor and maintenance crew to a particular area) versus broadcast maintenance, and staffing practices that are critical in a quality maintenance program are emphasized as important in developing guidelines for effective maintenance management (pp. 13 – 44).

4. *A decision to outsource landscape and maintenance operations should include a careful analysis of both direct and indirect costs, which services should be contracted to an outside firm, and careful preparation of the contract to best assure acceptable performance by the outside firm* (pp. 45 – 50).
  
5. *Benchmarking (the process of measuring activities considered critical to an organization’s success) should be used in maintenance management to:*
  - Avoid reinventing an existing solution
  - Achieve breakthrough improvements and accelerate change
  - Drive and direct reengineering
  - Set “stretch” goals.

This five-part process helps to guide an organization in monitoring and evaluating performance, and in focusing on continuous improvement in efficiency and effectiveness (pp. 57 – 64).

These latest national “guidelines” serve more as qualitative frameworks for operational evaluation and improvement in the five policy areas discussed. The general principles outlined in *Operational Guidelines for Grounds Maintenance* provide a policy framework with some examples of application, but are not “standards” for park and recreation maintenance. These principles can, where appropriate, be adapted and applied to specific park and recreation maintenance operations.

### **Computerized Maintenance Management**

An article written by Victor M. Hernandez in the June 2001 issue of *Parks and Recreation* focused on improved maintenance management (implementing policies and procedures to achieve maintenance goals and standards) through “computerized maintenance management systems.” The article posed several questions focused on tracking and measuring maintenance management practices:

- Are maintenance managers able to factually back up the purposes of current maintenance expenditures?
- Can past experience and records be utilized to project future maintenance budgets?
- Can maintenance managers break out maintenance costs by individual park, program or equipment?
- How much of the maintenance manager’s work is scheduled, planned, reactive, emergency, or delayed?
- Do maintenance managers have a current actively managed backlog of work to be done?
- Do maintenance managers schedule and prioritize work with operations and program managers against department goals and objectives?
- Is the periodic maintenance for rolling stock -- trucks, tractors, and mowers -- current?

According to Hernandez, reactive maintenance (fix it when it breaks) evolved into preventive maintenance (maintain equipment in accordance with manufacturers’ guidelines), then to Reliability Centered or Total Plant Maintenance (RCM or TPM) that requires maintenance operations to coordinate with recreation program delivery personnel. A Computerized Park

Maintenance Management System (CPMMS) is based on the diligent use of a work order system to plan, assign and track maintenance activities and consists of a series of programmed relational databases or modules that track equipment records, work orders, preventive maintenance, inventory, purchasing, personnel, and scheduling. These relational databases enable the maintenance manager to store, retrieve and analyze related data to most efficiently and effectively manage limited resources to achieve maintenance goals and standards.

## **Park and Recreation Maintenance Standards From Other Cities and Park Districts**

Park maintenance standards, guidelines, and practices utilized by several cities and a large park and open space district were reviewed as the second step in this maintenance review process for the City of Santa Clarita. Standards from cities within California as well as several cities outside the state were reviewed to provide a broad perspective on the various levels of sophistication employed by cities in developing park maintenance standards, guidelines and practices. Some cities are comparable in size with Santa Clarita, while others are larger, but were reviewed because they have developed and implemented innovative maintenance standards and/or practices. In addition to reviews of several cities, trail and open space maintenance standards from East Bay Regional Park District (EBRPD) were reviewed and summarized. EBRPD has a long-standing history of managing expansive open space areas and trails. Many of these are similar to the types of trails and open space managed by the City of Santa Clarita.

### ***San Francisco, California***

In November 2003, San Francisco voters passed Proposition C that required the San Francisco Recreation and Park Department to develop maintenance standards for city and county parks. The standards define or describe “the desired conditions of park features” and were developed by the Department of Recreation and Parks and the San Francisco Controller’s Office with assistance from park advocates and the general public. The standards that were developed are utilized “to assess and evaluate conditions in San Francisco parks in all 11 supervisorial districts.”

San Francisco park standards and criteria for inspecting and evaluating each park element have been incorporated into a manual entitled ***San Francisco Park Maintenance Standards: The Manual and Evaluation Form*** dated May 3, 2005 (see Appendix A). The stated objectives for having standards include:

- Communicate condition of the park system to Rec & Park management staff, elected officials, and the public
- Develop and communicate Rec & Park’s goals regarding maintenance standards
- Establish a link between park conditions and Department’s resources through systematic park evaluations
- Assist Rec & Park staff in scheduling and prioritizing maintenance functions and resources
- Improve park conditions by efficient resource allocation and improved park maintenance

Maintenance standards and guidelines in ***The Manual*** are divided into (1) landscaping, (2) recreational facilities, and (3) support facilities. ***Landscaping*** is further divided into lawns; ground covers and shrubs; trees; paths, sidewalks, plazas and trails; and, open space. ***Recreational facilities*** are categorized into turf athletic fields; outdoor athletic courts (e.g., tennis, basketball); children’s play areas, and dog play areas. ***Support facilities*** are subdivided into restrooms; parking areas and roads; waste management; benches, tables and grills; and,

buildings and structures. The park maintenance standards are outcome-based and define the desired conditions of a selected group of tangible park features.

Specific elements or *features* are examined for maintenance conditions. For example, features examined under lawns include cleanliness, color, density and spots, drainage/flooded areas, edged, height/mowed, and holes. A standard description for each element is provided together with a unit of measure and photographs of acceptable and unacceptable conditions. For example, under density and spots for lawns, the maintenance standard is “80% of the turf area is free of bare spots.” An inspection checklist is then utilized to record whether or not the standard is met for each feature.

The type of maintenance inspection and evaluation system developed by San Francisco is adaptable to facilities and areas that may have variations in levels of maintenance. For example, the standard for color of grass and percentage of bare spots is generally different for sports practice fields than for fields utilized for regularly scheduled games. To best satisfy user groups, San Francisco requires discussion with and input from these groups to reach a consensus on standards that are acceptable within the resources of the managing agency.

Maintenance at San Francisco Recreation and Park Department (RPD) parks is now being rated on a quarterly basis. Nearly half of all RPD properties are rated each quarter (approximately 85 parks) so that each park is inspected twice each year. Results of these quarterly ratings are posted on the following website: [http://www.sfgov.org/site/recpark\\_page.asp?id=37737](http://www.sfgov.org/site/recpark_page.asp?id=37737) for interested parties to view.

### ***Los Angeles, California***

The City of Los Angeles, Office of the City Controller, commissioned the Matrix Consulting Group to conduct a ***Performance Audit of the Maintenance Activities of the Department of Recreation and Parks*** that was completed January 9, 2006. The following is a summary of the criteria and key findings from the audit (see Appendix B).

- The LA Department of Recreation and Parks **lacked a citywide park master plan** to guide the rehabilitation and renewal of the park system.
- The Department was developing a strategic plan, but the **plan did not include several key elements** such as: a community needs assessment; analysis of strengths, weaknesses, opportunities and threats (SWOT analysis); and, goals and objectives based on the SWOT analysis.
- The Department **has not developed goals, objectives, and performance measures for park maintenance**, park forestry, facility maintenance and repair, and golf course maintenance.
- The Department **has not developed and updated long-term strategies to assure adequate funding** for the maintenance, renewal and rehabilitation of recreation and park assets.
- The Department **does not have a comprehensive inventory of the assets** that it maintains.
- The Department **lacks formal maintenance management systems for maintenance of parks, golf courses, and facility maintenance and repair.**

- The Department is **not preventively maintaining its buildings and building equipment or replacing major building components** on an established schedule.
- The Department’s **overall level of staffing for building maintenance and repair is sufficient, but not in the core trades** – electrical, heating-ventilation-air conditioning (HVAC), and plumbing – hindering the Department’s ability to preventively maintain its buildings.
- The Department **has under-invested in the renovation and rehabilitation** of its golf courses.
- The Department **does not conduct periodic, ongoing facility condition assessments** of its parks, golf courses and facilities.
- There are **significant inequities in the allocation of park maintenance staff** among the four regions.
- The current plan of organization for park maintenance results in **too narrow a span of control for managers** and too broad a span of control for first-line supervisors.
- **The authority and responsibility of Park Maintenance Supervisors has not been clearly defined.**

An array of problems resulting from each of the above “deficiencies” was discussed including (1) reduced use of areas and facilities, (2) declining revenues from those facilities that generate fees and charges, (3) declining public and political support, and (4) aging infrastructure and increased maintenance costs. Specific recommendations were proposed to address each of these problems.

1. Develop a **citywide park master plan**.
2. Expand the scope of the strategic plan to undertake a **needs assessment and SWOT analysis**.
3. **Monitor the accomplishment of the strategic plan** and report annually on the status of implementation.
4. **Develop goals, objectives, and performance measures** at the division and the program level.
5. **Develop reliable and accurate data to measure performance**, and use performance data for decision-making and accountability reporting.
6. **Prepare long-term financial strategies for the ongoing renewal and rehabilitation** of recreation and park assets and update these strategies on an annual basis.
7. **Conduct a comprehensive asset inventory** of parks, golf courses, facilities, and park forests.
8. **Develop a formal maintenance management system** for parks, park forestry, golf courses, and facility management.
9. **Develop and implement a preventive maintenance program** for its facilities and equipment.
10. **Reallocate staff from non-core building trades to core building trades** to enable the development and installation of a preventive maintenance program.
11. **Enhance the level of automation** and equipment for park forestry to increase productivity of staff.
12. **Complete condition assessments** of all Departmental assets on a routine, ongoing basis.

13. **Reallocate staff to balance the park maintenance workload** among the regions and districts to provide a more consistent level of service.
14. **Modify the existing organizational structure for park maintenance** by considering appropriate spans of control.
15. **Clarify the roles and responsibilities of the Park Maintenance Supervisors** and provide them with ongoing supervisory training.
16. **Consider the feasibility of transferring non-core maintenance services** to other City departments.

With some adaptation, these maintenance audit criteria and recommendations are applicable to other municipal and county park and recreation operations.

### ***Oakland, California***

The City of Oakland developed a “Maintenance Plan” with a chapter devoted to “Maintenance Review” and “Guidelines for Care” (see Appendix C). The goal of the maintenance review process was to improve the overall quality of parks and a higher return for taxpayer invested dollars. The review is build around the landscape components, such as trees and shrubs, with identification of individual maintenance that should be performed (planting, fertilization, mulching, pest control, plant repair, and pruning). The frequency of each maintenance procedure is identified and the season or seasons of the year during which it is performed is specified. In addition, non-recurring long-term maintenance activities, such as removal of tree stakes or pruning of lower branches, are also specified. The first iteration of each landscape element and associated maintenance activities was prepared to establish a baseline for those tasks, the frequency with which they were to be performed, and the personnel requirements for each task with the intention of refining the schedule over time.

### ***Austin, Texas***

The City of Austin, Texas, long regarded as having one of the best parks and recreation departments in the United States, conducted an audit of park maintenance that was published in 2002. The findings of the audit are particularly salient to evaluating any park maintenance operation including standards. The following is a quote from the audit findings.

***Any assessment of a maintenance program requires a critical look at the condition of the assets maintained. However, the lack of clear maintenance standards, useful performance measures, and data on the condition of parks and park amenities makes valid generalization about the overall condition of Austin parks impossible. (p. 15)***

Audit findings provide the following guidelines for establishing and maintaining meaningful standards:

***To maintain parks effectively, the City must treat the parks as a major real estate asset. The Austin parks system is a vast real estate portfolio, ranging from structures to preserve land, which should be managed through consistent maintenance and a rational approach to reinvestment. Available literature and authoritative opinions on managing an assets portfolio, as well as literature on maintenance practices, generally agree on the elements required for effective maintenance of the asset portfolio:***

- *A complete inventory of assets with defined service levels and maintenance requirements for each.*
- *A systematic, documented process for routine assessment of each asset's condition.*
- *A comprehensive strategy for ongoing reinvestment in the assets through maintenance, including long-range and annual maintenance plans by asset.*
- *A clear definition and separation of maintenance responsibilities from other responsibilities through standard operating procedures and work standards.*
- *The development and use of sound management information on performance and costs.* (pp. 15 – 16)

The audit includes specific recommendations to address implementation of each of the above elements (see Appendix D). Key recommendations include the following:

- Link park maintenance with external customer satisfaction through a “Voice of the Customer” survey conducted by the City of Austin.
- More equitable distribution of workload among the park maintenance districts in the city.
- Complete a comprehensive inventory of park and recreation facilities together with specifications for facility maintenance requirements.
- Establish an ongoing program of assessment for all parks and facilities to improve planning for maintenance and accountability for the condition of those parks and facilities.
- Establish long- and short-range maintenance plans for each park asset based on initial condition assessments and standards for maintenance.
- Adopt and maintain preventive maintenance programs for all parks and facilities.
- Develop work standards, implement standard operating procedures for all activities, and more closely related the financial reporting structure to work unit performance.
- Fully implement the MS 2000 maintenance management software to better manage the maintenance and asset condition information for facilities and areas.
- Evaluate alternative funding sources and methods of service delivery for maintenance of real assets.

In summary, these recommendations focused greater accountability for efficiency and effectiveness through (1) assuring public input in the evaluation of park maintenance; (2) efficient and effective allocation of human resources to perform maintenance; (3) complete asset identification, establishment of measurable standards, planning for meeting those standards, and on-going assessment of asset conditions, (4) cost tracking and financial reporting to demonstrate efficient and effective use of resources; (5) computerization of the maintenance management system; and, (6) evaluation of alternative funding and service delivery methods.

### ***Lynchburg, Virginia***

The City of Lynchburg, Virginia established standards with four levels of maintenance for athletic facilities (see Appendix E). For example, Level I athletic fields are irrigated and have five maintenance standards:

1. Maintain Bermuda grass 1”–1.5” in height, green in color, free of disease, weeds and bare spots.
2. Cool season grasses cut to 2.5”–3”, green in color, free of disease, weeds and bare spots.
3. Infields groomed, free of weeds, free of excessive stones; bases and mounds set and built to league standards; fields marked in a neat and straight manner; field marks should be visible to players.
4. Fields adequately lighted.
5. Facility immediate surrounding field neat and well groomed. Facility free of trash and debris. Trash can liner replaced at time of service.

For each standard, a set of maintenance tasks was specified together with the frequency with which tasks are to be performed. This approach is reasonably specific in that tasks and frequencies for performing those tasks (process and output) were specified together with the color and height at which the grass was to be maintained (outcome).

### ***East Bay Regional Park District***

East Bay Regional Park District (EBRPD) has developed and published a very detailed set of ***Park Operations Guidelines*** (revised August 11, 2003) that address the following topics:

- Part operations division administration
- Park facilities and activities
- Park visitors
- Park safety
- Park vehicles and equipment
- Park facility maintenance
- Park resources

In addition, EBRPD has also published a ***Trail Manual for the Maintenance and Operation of Trails in the East Bay Regional Park District*** (1995). This publication discusses:

- Trail categories
- Trail maintenance priorities
- Trail maintenance guidelines
- Operations
- Design details
- Maintenance drawings
- Trail signs

The following trail maintenance guidelines have been included in EBRPD ***Park Operations Guidelines***. These have particular relevance for the trails and open space that the City of Santa Clarita will soon be managing.

### **Hikers Only Trail Guidelines**

1. Surfaces should be reasonably smooth, free from loose rocks, rock and root outcrops, and hazardous materials, well drained and firm (reference to ***Trail Manual***).

2. Steps should be level, aligned, properly spaced for safe and comfortable use, anchored securely, backfilled to step grade, and free from erosion.
3. Appropriate barriers should be provided against unwanted human use in wildlife areas. 'Shortcuts' should be covered to prevent erosion and camouflaged to prevent use.
4. Footbridges should be structurally sound and free from loose flooring or guardrails. Handrails should be provided if codes require it.
5. Step-overs, stiles, stairways, and boardwalks should be well anchored, structurally sound, clean and free from loose floorings, loose handrails, and rough or splintered edges.
6. Trails should be free of hazardous or nuisance plants such as branches, thistles, and vines that intrude. Poison oak should be sprayed or cut well back from trails.

### **Paved Multi-Use Trail Guidelines**

1. Paved surfaces should be uniformly smooth, free of loose gravel, raveling, pitting, holes, settling, and depressions which accumulate water.
2. Pavement edges should be unbroken; shoulders filled in to pavement grade to provide adequate 'escape' space, and should be free from hazardous objects or vegetation. Side clearances should conform to Trail Manual Guidelines.
3. Lines of visibility should be maximized and hazardous turns marked with appropriate warning signs.
4. Directional and warning signs should be securely anchored, and free of obstructing vegetation and evidence of deterioration and vandalism.
5. Guardrails of adequate height should be provided where designated by District Design Engineering Department.

### **Unpaved Multi-Use Trail Guidelines**

1. Surfaces should be free of major irregularities, loose rocks, root outcrops, etc. (reference to *Trail Manual*).
2. Vegetation should be trimmed.
3. Adequate passing spaces or turnout should be provided if possible.
4. Directional signs and maps should be attractive, durable, and free from obstructing vegetation and deterioration (reference to *Sign and Trail Manual*).
5. Trail marker posts and maps should be provided at key locations such as junctions; and should be readable and free from major damage or deterioration.
6. Trail markers should correspond to the maps and brochures currently published and replaced in a timely manner.

## **Review of Maintenance Standards Currently Used by the City of Santa Clarita**

### **Introduction**

Prior to an on-site tour of park areas and recreation facilities, park maintenance managers were e-mailed a set of open-ended questions regarding maintenance standards, guidelines and practices. These questions are included in Appendix F. A March 2007 meeting was held with park maintenance personnel from the Department of Parks, Recreation and Community Services to discuss the questions and to submit written responses. During the meeting, maintenance personnel provided copies of guidelines, schedules and forms that are utilized to manage maintenance in Santa Clarita. The following is a summary of information regarding maintenance standards and practices that were derived from these three sources of information.

City staff maintains all of Santa Clarita's parks and trails, and both city staff and independent contractors maintain open spaces. City staff also address the maintenance needs of parks buildings which include 20 outside restrooms, six recreation buildings with offices, five aquatic buildings with shower and locker room buildings, three concessions buildings, two maintenance buildings, the Santa Clarita Community Center and the Santa Clarita Sports Complex with five buildings. Maintenance of landscaped medians is contracted out with contract compliance managed by city park maintenance personnel.

The City of Santa Clarita Department of Parks, Recreation and Community Services has well-defined maintenance procedures for parks, trails, open spaces and street medians. These are well organized and indexed in a manual entitled, "City of Santa Clarita, Parks Division, Grounds Maintenance Procedures Manual." The maintenance staff also utilizes the "Handbook for Public Playground Safety" for playground safety inspections and work order tracking for repairs published by the U.S. Consumer Product Safety Commission, Washington, D.C. (Pub. No.325). Specifications for janitorial services have also been developed and are contained in a document entitled "Janitorial Services – Park Facilities." Maintenance standards and guidelines are proactive rather than reactive. The park and recreation staff has developed detailed preventive maintenance schedules and maintenance tasks to be performed for each facility. The tasks range from cleaning walls and windows to checking emergency lighting systems.

Most of Santa Clarita's existing maintenance standards and procedures are organized around different **types of maintenance functions**, such as trash control, irrigation, safety and maintenance of landscape/hardscape, with some focus on particular **park elements** (turf areas, restrooms, trails, etc.). These standards and procedures largely focus on **processes** (how or what maintenance tasks are to be performed) and **outputs** (how frequently tasks are to be performed), and to a lesser degree focused on **outcomes** (health of plants or turf areas; appearance, height of grass). Good outcome-based standards must focus on how a park element will appear and/or function from the standpoint of the recreation user. In other words, how would the recreation user describe a park or facility element if it was acceptable to them. For turf areas, this description by recreation users might be that they are (1) dense with a healthy green color; (2) free of weeds, holes and trash; and, (3) mowed to a height of 1.5".

In today's consumer-oriented society, recreation users are focused on the end product or service (outcome) and not particularly concerned with what maintenance personnel need to do (processes) and how frequently they need to do it (outcomes) to offer a well-maintained and attractive facility or area. Thus, maintenance standards need to focus on outcomes from the standpoint of the recreation users or consumers and may be accompanied by supporting information on processes (what needs to be done) and outputs (how frequently particular maintenance functions need to be done) to typically achieve those outcomes. **The following is a summary discussion of current standards and procedures by the major types of maintenance tasks as presented in the "City of Santa Clarita, Parks Division, Grounds Maintenance Procedures Manual" accompanied by some examples of how standards and procedures might be restructured to focus more on outcomes.**

### **Play Areas**

Maintenance standards and procedures for play areas consist of eight maintenance tasks that must be performed:

- Check daily for safety problems, such as glass in sand or wood chips.
- Weekly grooming of sand or wood chips including sifting and leveling.
- Blowing down play areas and returning fall material to the play areas no less than two times weekly.
- Regrading of media at least twice weekly or as often as required under equipment, such as swings, slides and stairs to fill in where it is constantly pushed out of place by children.
- Hosing down rubber mats as need to keep areas clean and free of sticky, slippery, or liquid substances.
- Close play areas with barricades and post signs if sand becomes covered by rainwater during long periods of storms.
- Rototil or loosen compacted sand at least once each month.
- Make sure that the minimum requirement of sand covers playground equipment feet. Minimum requirements for each type of fall material are discussed and specified in an appendix to the section of the Grounds Maintenance Procedures Manual that is devoted to play areas.

The first three maintenance procedures presented above are processes and outputs. The fourth is **outcome-based** in that it requires re-grading of fall material "as often as required under equipment, such as swings, slides and stairs to fill in where it is constantly pushed out of place by children." This part of the standard/procedure focuses on the **intended outcome** and requires the task to be performed as frequently as required to achieve that outcome. An output statement that provides an explanation of how frequently the task is required under normal use conditions to achieve the intended outcome could accompany any outcome standard. **As these outputs to achieve a particular standard are tracked over time, the labor, equipment and materials required to maintain the standard can be more precisely estimated under various use conditions.**

The standard for hosing down rubber mats, closing play areas during storm periods, and assuring that minimum fall material is in place are **outcome-based**. In contrast, the monthly rototil

requirement for compacted sand is a process/output standard and does not focus on an intended outcome. The standard could be restructured to require rototilling of sand to minimize soil compaction and maintain the sand in a safe condition for falls. The outcome standard could be accompanied by a supporting statement that rototilling is require one to two times per month under normal use conditions. This would be an outcome standard with information regarding the normal outputs required to achieve the standard.

### **Par Course**

Maintenance standards and procedures for par courses include five guidelines:

- Visually inspect daily.
- Weed each par course station weekly.
- Maintain DG – rake with a steel rake weekly.
- If a station has graffiti on it, either remove it or if it cannot be removed, inform Building Maintenance.
- Report any broken stations to Building Maintenance.

These guidelines cannot be construed as maintenance standards. They focus on process (visually inspect) and output (frequency is daily), not on intended outcomes. What are maintenance personnel inspecting to find? What is the outcome or standard in terms of appearance, functionality, etc.? Explain the desired characteristics of the DG that may require periodic raking, such as an even surface, minimum thickness, etc.

### **Horseshoe Pit**

Procedures for maintaining horseshoe pits include the following:

- Visually inspect daily.
- Make sure pit is level and all holes filled.
- Stake should be set at proper angle.
- Check for splintering or split backboards.
- Keep sand in the pits loose – rake as needed.
- Keep the area weed free.
- Check chain link fence weekly for any problems.
- Paint back boards two times annually.

These procedures or guidelines are focused on processes and outputs, not on intended outcomes. The second standard (make sure pit is level and all holes filled) is largely an outcome, but could be restated to clarify the intended outcome. For example, “maintain the pit in a playable condition. This will require leveling fill material and filling all holes as needed. Typically leveling and filling are required on a daily basis during heavy use periods.”

### **Tennis/Basketball Courts**

Six guidelines have been developed for the maintenance of tennis and basketball courts:

- Make a daily inspection of court equipment and fences, including basketball nets.
- Pick up any debris on tennis court daily.

- Weed whip perimeter as necessary. Treat with herbicides as needed to keep a 4” strip free from weeds.
- Blow down courts a minimum of once weekly and wash down a minimum of once monthly.
- Remove weeds from cracks as soon as they appear. Treat with herbicide as needed.
- Monitor and adjust any sprinklers to make certain they do not water hard surfaces.

These guidelines are very process (pick up any debris on tennis court) and output (frequency is daily) oriented. They need to accompany intended maintenance outcomes from the standpoint of the recreation users. In addition, these guidelines do not directly address a standard for surface cracks. For example, when poured court surfaces begin to crack, at what point are they repaired or resurfaced. The above guidelines address frequent maintenance tasks, but standards for long-term care of courts.

### **Picnic Areas**

The “City of Santa Clarita, Parks Division, Grounds Maintenance Procedures Manual” includes eight procedures for maintaining picnic areas:

- Inspect area for graffiti, vandalism, debris, etc., daily.
- Clean out barbecue braziers a minimum of once weekly or more often as needed.
- Make sure all trash and other debris is picked up from under the tables on a daily basis.
- Wash down beneath hardscape picnic areas no less than once a week, or more often as needed.
- Check drinking fountain to see if it is clean and in good working order.
- Rake smooth any holes or ruts (check under tables) weekly in decomposed granite areas.
- Control wasps/hornets both proactively and after they appear.
- Keep tables in designated areas.

Over time, these have probably proven to be effective procedures for maintaining picnic areas to the expectations of recreation users. However, like the other maintenance standards and procedures discussed above, they focus heavily on process and output. How would a recreation user describe a well-maintained picnic area? It might be the following:

- Clean and attractive picnic table and pad that are free of trash, debris, spills, stains, holes, dangerous insects (wasps), graffiti, and damage.
- Clean barbecue brazier that is fully functional.

The above maintenance procedures would be employed as frequently as needed to achieve these stated outcomes. If the maintenance staff tracks the frequency that each procedure must be completed to maintain the stated outcomes, better scheduling and cost estimates for maintenance in the desired condition can be developed and continuously refined.

### **Landscape/Hardscape Areas Maintenance Requirements**

Current maintenance standards and procedures for landscape and hardscape areas consist of the following:

- Areas are to be inspected daily and problems reported to the Crewleader.
- Shrubbery is to be pruned as needed not less than once per month for shape and to keep growth in bounds.
- Weeds and dead plants are to be pulled when they appear.
- Raking of fallen leaves and other debris is to be completed as needed, but not less than once a week.
- Walkways are to be washed down as needed. Debris is never to be allowed to accumulate in corners.
- Clean up areas as part of any maintenance operation including removal of dirt raked out of planters on sidewalks.
- Dispose of green waste or debris on the same day they are generated by maintenance operations.

These standards and procedures are process and output based. The intended outcome or outcomes for each is implied, but not clearly stated. For example, “weeds and dead plants are to be pulled when they appear” could be restated as follows:

*In order to maintain lawn areas, planters and walkways in a safe and visually attractive condition, weeds and dead plants are to be pulled when they appear.*

**This makes the intended outcome clear and states the process and output that is normally required to achieve the outcome. Stating a standard or guideline in this manner explicitly states the “why” for employees, elected officials, recreation users and taxpayers.**

### **Other Maintenance Functions**

The Parks Division has guidelines for several maintenance functions including weed abatement, wasp/hornet control, edging, tree pruning, slopes, irrigation systems, parking lots, chemical applications, fertilization, aeration and trash control. A separate set of guidelines for janitorial services for park facilities have also been developed. All of these maintenance guidelines focus on what is to be done and how often it is to be done for each type of maintenance activity. None are area specific, but apply to all areas and facilities where appropriate. They focus on process (what is to be done) and output (how frequently it is to be done), but do not clearly present intended outcomes. For example, one purpose of irrigation is to maintain healthy turf or landscaped areas. The standard for turf irrigation might be the following:

*Maintain healthy turf areas that are 95% free of bare spots, normal green in color, free of weeds or other invader plants, and free of litter and debris.*

One of the maintenance procedures that would be required to achieve the above standard would be irrigation as needed to maintain optimum soil moisture for healthy turf growth. The achievement of the standard would require timing and length of irrigation that would vary based on soil type, slope, drainage, type of turf, temperature, wind conditions, humidity, and use by recreation visitors. This timing of irrigation would require some type of monitoring to assure that optimum soil moisture conditions were maintained. It would also require inspection, repair,

and periodic replacement of irrigation components to assure that irrigation timing schedules (process and output) could be met, thus helping to assure that the standard is met (outcome).

**All of the guidelines for the maintenance individual maintenance functions appear to be based on experience and best practices, and they are certainly critical to proper maintenance of areas and facilities. However, as they are currently documented, they are not tied to maintenance standards for each type of park area and facility.**

### **Equipment Inspections and Maintenance**

The Fleet Maintenance Division in the Public Works Department of the City of Santa Clarita addresses maintenance needs of park vehicles and equipment. Five guidelines/procedures for equipment maintenance and fourteen for equipment inspections are included in the “City of Santa Clarita, Parks Division, Grounds Maintenance Procedures Manual.” They appear to be based on experience and best practices, and are critical to proper maintenance of equipment that is utilized in park and facilities maintenance operations. A vehicle condition report or checklist is required to be completed prior to each use of a vehicle. **An equipment condition report or inspection checklist for each type of specialized equipment could also be developed for use by employees when using specialized power equipment such as chain saws, gasoline blowers, generators, pumps, etc.**

### **Preventive Maintenance**

The City of Santa Clarita has preventive maintenance programs for its pools and park facilities. These programs detail each pool or park element, such as pool decks, fencing, fire alarms, etc., and specify a time each year during which preventive maintenance will be performed on that element. The specific maintenance inspection and/or repairs to be performed are also specified, such as replacement of batteries and staff fire drills/alarm tests for fire alarms. In addition, the preventive maintenance schedule for elements that are to receive recurring preventive maintenance throughout the year is specified on a monthly schedule for the entire year. **This preventive maintenance planning and scheduling helps to reduce repair and replacement costs by identifying and correcting problems when they are minor rather than allowing an element to break down, often requiring expensive repairs and/or replacement.** Information from the preventive maintenance activities should be entered and tracked in a CPMMS.

### **Maintenance Forms**

Several forms are available to document accidents, ball field maintenance activities, irrigation repairs, tool inventories, trail inspections, and weekly maintenance (Weekly Work Log). These should be useful in tracking maintenance activities, but there is no evidence that the information is tied back to evaluating the achievement of maintenance standards for the different types of areas and facilities. This would require that information from these completed forms be entered into a relational database (Computerized Park Maintenance Management System) that would track costs for maintaining individual areas or facilities. This data could be correlated with maintenance ratings for each area or facility to measure the costs for achieving each rating.

As discussed in a previous section entitled National Recreation and Park Maintenance Standards, Computerized Park Maintenance Management System (CPMMS) is based on the diligent use of a work order system to plan, assign and track maintenance activities and consists of a series of

programmed relational databases or modules that track equipment records, work orders, preventive maintenance, inventory, purchasing, personnel, and scheduling. Santa Clarita already has the forms needed to collect information needed for a CPMMS. However, **an integrated software system that integrates the relational databases for maintenance management is needed.**

### **Work Order System**

The City of Santa Clarita currently utilizes a computerized work order system (*MaintStar Work Order System*) to track work orders including the following variables: location, sub-location, craftsman identification number, trade, date the work order was issued, date the work order was closed, work order number, total hours, contractor costs (if any), miscellaneous costs, total labor costs, materials costs, total work order costs, system or equipment worked on by the maintenance worker, and description of the task or tasks performed. Work orders are assigned the following priorities:

1. Safety issues
2. Recreation programs and events
3. Public impact
4. Lower priority, long-term projects

Work order data can be sorted by any of the variables contained in the work order database, such as location or sub-location, or any of the cost categories. This work order database should enable park maintenance managers to:

- Compute the average length of time and cost for performing each type of maintenance task
- Accurately estimate the average time required for a work order to be completed after a request has been submitted
- Estimate recurring costs for certain areas or equipment that may indicate a the need to replace systems or equipment instead of continuing to repair them
- Calculate total costs for maintaining each park area or facility
- Identify variations in costs for maintaining the same type of area or facility (for example, variations in cost to maintain little league fields)
- Identify differences in labor productivity within a particular job classification
- Estimate use of materials and supplies per week or per month to better plan purchasing and inventory management

**A computerized work order system is an invaluable management and analytical tool when it is one of the relational databases in a Computerized Park Maintenance Management System (CPMMS) with capabilities to interface with human resource records, payroll, inventory and purchasing, scheduling, preventive maintenance programs, and budgeting software (including both the operating and capital budgets).**

### **Budgeting and Cost Tracking**

According to maintenance management staff, the City of Santa Clarita tracks costs through the *Pentamation* system. Each department is required to track its budget to include maintenance,

operation, and CIP projects. During the last eight years, the City has incorporated the **MaintStar Work Order System**. *It is unclear whether the Pentamation system and MaintStar interface from the information provided by staff.* The printed copy of the “Expenditure Transaction Analysis” appears to be a line item cost tracking system. The information provided is insufficient to determine if expenditures can be tracked by area, sub-area, and element. If the work order system interfaces with the cost tracking system, it should be possible to analyze individual costs and total costs for each area or facility, sub-area, and element (such as a park restroom or concession building). **Further clarification regarding the interface/interactive capabilities of the work order system and cost tracking software needs to be provided by park maintenance staff.**

### **Maintenance and Capital Improvement Program**

According to park maintenance managers, Santa Clarita has a capital improvements program for buildings, but not for parks. In addition, the CIP for buildings includes an inventory and life expectancy, but not the projected replacement costs of each existing asset. There is a clear cost interface between maintenance costs and capital replacement costs. If maintenance costs of an aging facility or park element are tracked, the annual maintenance costs will increase over time and will at some point exceed the annual costs of replacing or renovating the asset. However, the ability to complete this analysis and to make a determination regarding the optimum (most cost effective) time to renovate or replace an asset is dependent on a comprehensive maintenance cost tracking system for each area, sub-area, and element, as well as a complete capital improvement program that includes an inventory, life expectancy, and projected replacement cost for each asset. The projected replacement cost should be updated annually to account for industry-specific inflation rates, such as costs for paving parking areas or construction of buildings. The City of Santa Clarita needs to complete its capital improvements program by including all park and recreation assets, and including life expectancy and up-to-date replacement costs. **The CIP software should interface with the maintenance cost tracking software and work order tracking software system to permit analyses to determine cost effectiveness of (1) continuing to spend operating funds on maintenance and repairs for an asset, or (2) renovating or replacing that asset.**

## **Interviews with Santa Clarita Park and Recreation Maintenance Management Personnel**

The following is a summary of other maintenance issues and concerns raised by park maintenance personnel during the March 2007 interview and not discussed in the previous section of this report.

### **Contract Maintenance Services**

The City of Santa Clarita contracts for several specialized maintenance services to augment park maintenance efforts by city staff. These services include maintenance and repair of pool heaters, filters, pumps, HVAC units, night janitorial services, security, pest and rodent control. Specifications for janitorial services for park facilities were provided and largely focused on tasks to be performed (process) and the frequency of performance (output), but did not provide a specification of desired maintenance outcomes. It was not clear from the materials provided whether these “janitorial specifications” are also included in contracts for private janitorial services. In addition, no information on contract compliance policies and procedures was provided for the other contract services.

### **Maintenance and Park Planning/Design**

Developers, under close guidance and supervision by city personnel, are constructing many of the new parks in Santa Clarita. Maintenance personnel are heavily involved in design review and inspection of these new parks. **This involvement of maintenance personnel during the planning, design and construction phases should help to reduce maintenance problems and costs over the life of these parks.**

### **Maintenance Staffing**

Maintenance managers believe they are adequately staffed for the maintenance workload during weekdays. **However, they said insufficient staffing is often a problem on heavy use weekends.**

## **On-Site Visits to Park and Recreation Areas and Facilities in Santa Clarita**

In March 2007, an on-site tour of park and recreation areas and facilities was completed with city staff. Photographs of each area were made during the tour, and a maintenance inspection checklist was utilized to record any deficiencies (see Appendix G). Overall, all areas and facilities owned and maintained by the Santa Clarita Park and Recreation Department were clean and well maintained. The following is a summary of key findings from these on-site visits.

### **Athletic Facilities**

Overall, athletic facilities were very well maintained and functional (see Photo 1).

- All areas had been policed for trash removal and were litter-free.
- Turf areas were green and mowed to an appropriate height.
- Trees and shrubs were neatly pruned.
- Athletic goals were straight with nets properly installed. Nets were free of holes.
- Bleachers, picnic areas and tables were clean and sanitary. Bleacher hardware was properly installed and tight.
- Lights were functional. However, lighting direction was not checked due to daytime visits.
- Fencing was attractive and well maintained with no holes. Posts and support rails installed and straight.
- Restrooms were clean and stocked with toilet paper. Toilets and sinks functioned properly. Floors and walls were clean.
- Walkways were clean and neatly edged.

The major maintenance problems identified at the more heavily utilized athletic facilities were **soil compaction and some bare spots in heavily trafficked turf areas**. Due to the heavy demand for athletics and limited number of available facilities, the City of Santa Clarita may need additional athletic facilities to relieve use pressures on existing facilities.

### **Playgrounds**

Playgrounds in Santa Clarita were attractive and very well maintained (see Photo 3). Visits to playgrounds revealed the following with regard to maintenance.

- Hardware on play equipment was intact with no protrusions.
- Play equipment was clean and free of graffiti.
- All play equipment was intact and in working order.
- Signage for the age appropriateness of equipment was posted at the playgrounds in community parks.
- Fall surfaces were level, clean and free of litter, rocks and other debris.
- Fall surfaces were well drained.
- Playground borders were well defined and intact.



**Photo 1. Athletic fields and walkways in Santa Clarita Central Park.**



**Photo 2. Athletic field at Valencia Heritage Park.**



**Photo 3. Playground at Santa Clarita Neighborhood Park.**

### **Benches**

Overall, park benches appeared to be relatively new and very well maintained (see Photo 4). The following is a summary of findings regarding park benches.

- Surfaces were smooth and structurally sound.
- Hardware was tight with no protrusions.
- Benches were free of graffiti.
- Seating surfaces were clean and not discolored.



**Photo 4. Park benches and playground at Almendra Neighborhood Park.**

### **Picnic Tables and Shelters**

Picnic tables and shelters were clean and very well maintained with no signs of deferred maintenance (see Photo 5 and Photo 6). The following is a summary of findings from on-site visits to picnic facilities.

- Tables were clean, sanitary and free of graffiti, rust, mildew and unsightly stains.
- Water fountains and faucets were operational.
- Appropriate signage was clearly posted.
- Shelters were neatly painted with attractive roofs. All structural parts were free of graffiti.
- Shelters were clean, sanitary, and free of graffiti.
- Shelters were structurally sound, neatly painted with no rotten lumber or rusted metal and no loose siding or loose roofing materials.
- Shelter roofs showed no signs of leaks.
- Signage with reservation and rules information and emergency telephone numbers was posted in a noticeable location.
- Grounds around the shelter were mowed and trimmed and free of litter, debris, and hazards.
- Walkways were smooth and well maintained to facilitate easy ingress and egress, particularly of recreation users with mobility impairments.

### **Waste Receptacles**

Waste receptacles were easily accessible at all of the parks in Santa Clarita. The types of receptacles varied from concrete (see Photo 7) to attractively painted metal to older 55 gallon drums. Maintenance of waste receptacles was excellent during the on-site visit. The following is a summary of findings for maintenance of waste receptacles.

- Receptacles were clean.
- Receptacles were secured to prevent theft and tipping.
- Receptacles were painted and free of damaged or missing parts.
- Hardware for receptacles was intact.
- Concrete receptacles were intact and free of cracks or damage.
- Roll-off containers and dumpsters were screened or hidden and placed in less intrusive areas.
- Areas around waste receptacles, roll-off containers, and dumpsters were free of trash and debris.



**Photo 5. Picnic shelter in Begonias Neighborhood Park.**



**Photo 6. Picnic shelter at Chesebrough Neighborhood Park.**



**Photo 7. Waste receptacle and signage beside the walkway at Bridgeport Community Park.**

### **Park Restrooms**

Park restrooms were clean and very well maintained with no signs of deferred maintenance (see Photo 8). The following is a summary of findings for restrooms.

- Restrooms were clean, sanitary, and properly stocked with paper products.
- Lights and ventilation systems were operational.
- Toilets, water faucets, and hand air dryers (if available) were operational.
- Restrooms were free of graffiti.
- Interior and exterior paint (if applicable) was not peeling or weathered.
- Restroom doors were properly marked according to gender.
- Restrooms had clean trash receptacles.
- Restroom doors and locks were operational.
- Roofs showed no signs of leaks.



**Photo 8. Restroom facility at Pamplico Neighborhood Park.**

### **Aquatic Facilities**

The aquatic facilities at Santa Clarita Regional Sports Complex are extremely well maintained (see Photo 9 and Photo 10) with no signs of deferred maintenance (see Photo 9 and Photo 10). The following is a summary of findings for these aquatic facilities.

- All structures were neatly painted (where appropriate) and free of graffiti.
- Turf areas were a healthy green with dense growth; mowed to an appropriate height, neatly edged, and free of litter and debris.
- Landscape plantings were healthy, neatly pruned, and free of litter and debris.
- All lighting components were intact and appeared to be functional.
- Walkways and deck areas were free of cracks, stains, debris and litter.
- Pool areas were clean and free of debris.
- Chlorination and filtration systems were fully operational.
- Security fences were attractive and intact.
- Water play apparatus was fully functional and neatly painted with all hardware intact.
- Locker rooms and restrooms were clean, well ventilated, and fully stocked with paper products.



**Photo 9. Main pool at Santa Clarita Sports Complex Regional Park.**



**Photo 10. Water play apparatus at Santa Clarity Sports Complex Regional Park.**

### **Basketball Courts**

Basketball courts in Santa Clarita parks were attractive and well maintained (see Photo 11). The following is a summary of findings regarding maintenance of these facilities.

- Playing surfaces were smooth, level, and well drained with no standing water.
- Surfaces were free of large cracks, holes, and trip hazards.
- Surfaces were painted and striped as per court specifications.
- Surfaces were free of litter, debris, gravel, and graffiti.
- Goals and backboards were level with hardware intact.
- Goals and backboards were painted.
- Nets were properly hung and were not torn or tattered.
- Support poles were secure in the ground and straight.



**Photo 11. Basketball court at Santa Clarita Neighborhood Park.**

### **Trees and Ornamental Shrubs**

Trees and ornamental shrubs in Santa Clarita parks were healthy, attractive and well maintained. The following is a summary of findings from the on-site tour of Santa Clarita parks.

- Trees and shrubs were healthy and properly pruned.
- Shrub beds were free of litter, debris, and weeds (see Photo 11).
- The areas immediately around tree trunks were mulched to reduce mowing hazards and control weed growth (see Photo 12).
- Trees and shrubs showed no signs of disease, insect infestation, or stress.
- Young trees were properly supported to protect them from wind damage.



**Photo 11. Entrance sign with shrub planting at Valencia Glen Park.**



**Photo 12. Young ornamental trees in Bridgeport Community Park.**



**Photo 13. Young trees planted in Valencia Heritage Community Park.**

## **Summary of Current Maintenance and Operations Practices**

Current maintenance and operations practices by the City of Santa Clarita Department of Parks, Recreation and Community Services are exemplary of a well-managed program in terms of the quality of maintenance services provided. However, there are some maintenance management changes that could improve long-term planning and budgeting for maintenance if adopted and implement. The following is a summary of major findings from the maintenance and operations review with recommendations for possible changes.

### **Provision of Maintenance Services**

City maintenance personnel maintain all of Santa Clarita's parks and trails, and both **city staff and independent contractors** maintain open spaces. City staff also address the maintenance needs of parks buildings which include 20 outside restrooms, six recreation buildings with offices, five aquatic buildings with shower and locker room buildings, three concessions buildings, two maintenance buildings, the Santa Clarita Community Center and the Santa Clarita Sports Complex with five buildings. Maintenance of landscaped medians is contracted out with contract compliance managed by city park maintenance personnel.

Overall, maintenance managers believe they are adequately staffed for the in-house maintenance workload during weekdays. However, they said insufficient staffing is often a problem on heavy use weekends.

### **Contract Maintenance Services**

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### **Standards and Procedures**

The City of Santa Clarita Department of Parks, Recreation and Community Services has **well-defined maintenance procedures for parks, trails, open spaces and street medians**. These are well organized and indexed in a manual entitled, "City of Santa Clarita, Parks Division, Grounds Maintenance Procedures Manual." The maintenance staff also utilizes the "Handbook for Public Playground Safety" for playground safety inspections and work order tracking for repairs published by the U.S. Consumer Product Safety Commission, Washington, D.C. (Pub. No.325). Specifications for janitorial services have also been developed and are contained in a document entitled "Janitorial Services – Park Facilities." **Maintenance standards and guidelines are proactive rather than reactive**. The park and recreation staff has developed **detailed preventive maintenance schedules and maintenance tasks to be performed for each facility and area**. These tasks range from cleaning walls and windows to checking emergency

lighting systems. A detailed preventive maintenance schedule is utilized to guide preventive maintenance activities for each area/facility and element at that area or facility.

Most of Santa Clarita's existing maintenance standards and procedures are organized around different **types of maintenance functions**, such as trash control, irrigation, safety and maintenance of landscape/hardscape, with some focus on particular **park elements** (turf areas, restrooms, trails, etc.). These standards and procedures largely focus on **processes** (how or what maintenance tasks are to be performed) and **outputs** (how frequently tasks are to be performed), and to a lesser degree focused on **outcomes** (health of plants or turf areas; appearance, height of grass). Good outcome-based standards must focus on how a park element will appear and/or function from the standpoint of the recreation user. In other words, how would the recreation user describe whether a park or facility element was acceptable to them? This description by recreation users for turf areas might be that they are (1) dense with a healthy green color; (2) free of weeds, holes and trash; and, (3) mowed to a height of 1.5".

In today's consumer-oriented society, recreation users are focused on the end product or service (outcome) and not particularly concerned with what maintenance personnel need to do (processes) and how frequently they need to do it (outcomes) to offer a well-maintained and attractive facility or area. Thus, **maintenance standards need to focus on outcomes from the standpoint of the recreation users or consumers** and may be accompanied by supporting information on processes (what needs to be done) and outputs (how frequently particular maintenance functions need to be done) to typically achieve those outcomes. **In addition, there was no evidence or documentation that the Department of Parks, Recreation and Community Services systematically solicits and receives feedback on satisfaction with park and recreation maintenance from recreation users. This feedback can be useful in identifying strengths of the existing maintenance program as well as aspects that need improvement from the standpoint of the consumer. Recreation user feedback together with budget information provide managers more detailed data that are needed (1) to demonstrate efficient and effective use of public resources, and (2) to more thoroughly and effectively justify operating and capital improvement budget requests.**

### **Maintenance and Park Planning/Design**

Developers, under close guidance and supervision by city personnel, are constructing many of the new parks in Santa Clarita. Maintenance personnel are heavily involved in design review and inspection of these new parks. **This involvement of maintenance personnel during the planning, design and construction phases should help to reduce maintenance problems and costs over the life of these parks.**

### **Work Order System**

The City of Santa Clarita currently utilizes a computerized work order system (*MaintStar Work Order System*) to track work orders including the following variables: location, sub-location, craftsman identification number, trade, date the work order was issued, date the work order was closed, work order number, total hours, contractor costs (if any), miscellaneous costs, total labor costs, materials costs, total work order costs, system or equipment worked on by the maintenance worker, and description of the task or tasks performed. Work orders are assigned the following priorities:

1. Safety issues
2. Recreation programs and events
3. Public impact
4. Lower priority, long-term projects

Work order data can be sorted by any of the variables contained in the work order database, such as location or sub-location, or any of the cost categories. This work order database should enable park maintenance managers to:

- Compute the average length of time and cost for performing each type of maintenance task
- Average time required for a work order to be completed after a request has been submitted
- Recurring costs for certain areas or equipment that may point to the need to replace systems or equipment instead of continuing to repair them
- Total costs for maintaining each park area or facility
- Variations in costs for maintaining the same type of area or facility (for example, variations in cost to maintain little league fields)
- Differences in labor productivity within a particular job classification
- Use of materials and supplies per week or per month to better plan purchasing and inventory management

**A computerized work order system is an invaluable management and analytical tool when it is one of the relational databases in a Computerized Park Maintenance Management System (CPMMS) with capabilities to interface with human resource records, payroll, inventory and purchasing, scheduling, preventive maintenance programs, and budgeting software (including both the operating and capital budgets).**

### **Budgeting and Cost Tracking**

According to maintenance management staff, the City of Santa Clarita tracks costs through the *Pentamation* system. Each department is required to track its budget to include maintenance, operation, and CIP projects. During the last eight years, the City has incorporated the *MaintStar* Work Order System. It is unclear whether the *Pentamation* system and *MaintStar* interface as relational databases from the information provided by staff. The printed copy of the “Expenditure Transaction Analysis” appears to be a line item cost tracking system. The information provided is insufficient to determine if expenditures can be tracked by area, sub-area, and element. If the work order system interfaces with the *Pentamation* cost tracking system, it should be possible to analyze individual costs and total costs for each area or facility, sub-area, and element (such as a park restroom or concession building). **Further clarification regarding the interface/interactive capabilities of the work order system and cost tracking software needs to be provided by park maintenance staff.**

### **Maintenance and Capital Improvement Program**

According to park maintenance managers, Santa Clarita has a capital improvements program for buildings, but not for parks. In addition, the CIP for buildings includes an inventory and life

expectancy, but not the projected replacement costs of each existing asset. There is a clear cost interface between maintenance costs and capital replacement costs. If maintenance costs of an aging facility or park element are tracked, the annual maintenance costs will increase over time and will at some point exceed the annual costs of replacing or renovating the asset. However, the ability to complete this analysis and to make a determination regarding the optimum (most cost effective) time to renovate or replace an asset is dependent on a comprehensive maintenance cost tracking system for each area, sub-area, and element, as well as a complete capital improvement program that includes an inventory, life expectancy, and projected replacement cost for each asset. The projected replacement cost should be updated annually to account for industry-specific inflation rates, such as costs for paving parking areas or construction of buildings. The City of Santa Clarita needs to complete its capital improvements program by including all park and recreation assets, and including life expectancy and up-to-date replacement costs. **The CIP software should interface with the maintenance cost tracking software and work order software system to permit analyses to determine cost effectiveness of (1) continuing to spend operating funds on maintenance and repairs for an asset, or (2) renovating or replacing that asset.**

## **Summary of Maintenance-Related Findings From Community Meetings and Community Survey**

### **Summary**

Overall, residents of Santa Clarita rated park and recreation maintenance as good to excellent, and almost all are satisfied with current maintenance. They perceive that maintenance is important to their decision to use facilities and/or participate in programs. The greatest concern regarding maintenance is the ability of the City of Santa Clarita to maintain areas and facilities in the future. This concern appears to stem from possible budget and funding constraints.

### **Community Outreach**

During the three community workshops, surveys of sports organizations, and staff interviews held in Santa Clarita as part of the master planning process, participants provided the following regarding maintenance.

- In Community Workshop #1, some community members expressed concern about the maintenance of park and recreation infrastructure in Santa Clarita.
- Participants in Workshop #2 said that Santa Clarita parks are in excellent/good condition.
- In the sports organization survey, respondents said that ballfield maintenance in Santa Clarita is good to excellent, and soccer field maintenance is fair to excellent. Soccer organizations requested some maintenance adjustments.
- One of the answers to the question regarding what the Department (of Parks and Recreation) does best, “good maintenance of parks and facilities” was one of five functions that were mentioned by several stakeholders during the stakeholder interviews.
- During staff focus groups, one of the greatest strengths and assets presented was the provision of well-maintained facilities.
- Staff identified budgets and funding as one of the greatest constraints/challenges to providing quality park and recreation opportunities to the residents of Santa Clarita.

### **Telephone Survey**

Three questions were included in the random digit dial (RDD) telephone survey of Santa Clarita residents. A total of 96% of the survey respondents rated Santa Clarita recreation facilities maintenance as “excellent” or “good.” Almost all (99%) rated recreation facilities maintenance as “very important” or “somewhat important” in their decision to use those facilities, and 96% said they were either “very satisfied” or “somewhat satisfied” with existing maintenance of recreation facilities and programs in Santa Clarita.

## **Recommendations Regarding Needed Changes In Levels of Service and Support for Maintenance**

The following is a summary of finding and recommendations regarding park and recreation maintenance in the City of Santa Clarita. A detailed discussion of each is presented earlier in this report. These findings and recommendations are based on the following:

- A review of national park and recreation maintenance guidelines
- A review of park and recreation standards from other cities and park districts
- A review of park and recreation maintenance standards and practices used by the City of Santa Clarita
- Interviews and a survey of park and recreation maintenance management personnel
- On-site visits to park and recreation facilities and areas in Santa Clarita
- Findings from community outreach meetings and a community telephone survey

### **Recommendation #1**

Maintenance standards are currently a mixture of processes as well as outcomes. Maintenance standards should focus on intended outcomes. A supporting discussion regarding processes that may be required to achieve each intended outcome can be used to support the standard, but should not be included in the standard itself (see pp. 12-17).

### **Recommendation #2**

If the current **MaintStar Work Order System** and the **Pentamation** accounting software do not interface, the City of Santa Clarita should attempt to install a software system that integrates the relational databases for maintenance management through a workorder system with the accounting software. In addition, the CIP software should interface with the maintenance cost tracking software and work order tracking software system to permit analyses for determining the cost effectiveness of (1) continuing to spend operating funds on maintenance and repairs for an asset, or (2) renovating or replacing that asset.

### **Recommendation #3**

The current development process in Santa Clarita is to heavily involve maintenance personnel in the design review, construction, and inspection of new parks. **This practice of involving maintenance personnel should continue to help minimize maintenance problems and costs that result from poor design and/or construction.**

### **Recommendation #4**

Provide sufficient maintenance staff on busy weekends to make sure that facilities and areas are properly maintained including cleaning of restrooms, trash and litter removal, etc.

### **Recommendation #5**

Continue the Department's preventive maintenance program to minimize deterioration of facilities and areas that results when deferred maintenance practices are followed. The preventive maintenance program has helped to assure that recreation facilities and areas in Santa Clarita are functional, safe and attractive. Quality design and construction together with the

preventive maintenance program likely account for the high satisfaction ratings for maintenance that were given by community residents on the RDD telephone survey.

**Recommendation #6**

The Department of Parks, Recreation and Community Services should solicit and receive feedback on satisfaction with park and recreation maintenance from recreation users on an on-going basis. This feedback can be useful in identifying strengths of existing maintenance programs as well as identifying aspects of maintenance (such as soccer fields) that need improvement from the standpoint of the recreation users (consumers). This recreation user feedback, together with detailed cost information, can be used by maintenance managers to (1) demonstrate efficient and effective use of public resources, and (2) more thoroughly and effectively justify operating and capital improvement budget requests. This will be particularly important during periods when general fund monies do not meet demands for services and new sources of revenues, such as user fees, must be developed and/or further expanded to balance budgets.

## **APPENDIX A**

### **San Francisco Park Maintenance Standards**

## **APPENDIX B**

### **Performance Audit of the Maintenance Activities Of the Department of Recreation and Parks City of Los Angeles, California**

**APPENDIX C**

**Maintenance Plan**  
**City of Oakland, California**

**APPENDIX D**

**Audit Report**  
**Park Maintenance**  
**City of Austin, Texas**

## **APPENDIX E**

### **Maintenance Standards for Athletic Fields City of Lynchburg, Virginia**

**APPENDIX F**

**QUESTIONS REGARDING MAINTENANCE**  
**City of Santa Clarita, California**

**APPENDIX G**

**PARK MAINTENANCE ASSESSMENT  
SURVEY FORM**