



Chapter 6: Land and facility demand

Chapter 6: Land and facility demand

Chapter 6 evaluates the demand for park and recreation lands and facilities in Lake Oswego over the next 15-year period.

This chapter is organized into "Land requirements" and "Facility requirements." The methodologies used to estimate land or facility demand are explained within each section and are based upon the use of population ratios, participation models, level-of-service (LOS) measurements, and/or questionnaire survey methodologies. Appendix, page APP 67 explains how to read the demand charts contained within this chapter.

Development priorities are indicated for each land and facility requirement by stating that development may be needed within the "near future," meaning that development may occur within 6-10 years, or "eventually" meaning 10-15 years.

6.1 Land requirements

The following discussion addresses the methodology used to estimate land requirements and the amount of land needed to meet demand for parks and recreation services in Lake Oswego.

Ratio standards - the demand for park and recreation lands can be estimated using a ratio of a required acreage to a standard unit of population, like 3.1 acres of athletic fields and playgrounds per 1,000 residents. The ratio method is relatively simple to compute and can be compared with national or local park and recreation standards.

However, the method cannot account for unique age, social or interest characteristics that may affect the park and recreation activity patterns within a specific community. Nor can the method compensate for unique climatic or environmental features that may cause seasonal or geographical variations in park and recreation use patterns.

The ratio method is frequently used to estimate land requirements. However, a number of factors may significantly influence the amount of land a community may wish to set-aside for park and facility purposes. Such factors may include the presence of unsuitable soils, scenic viewpoints, historical or cultural assets that may increase set-asides, but not affect the ratio of required land to facility requirements.

The most widely used park land ratios have been formulated by the National Recreation & Park Association (NRPA) using standards that have been developed over time by major park and recreation departments across the country. **The ratios identified in this report include all lands and facilities provided by public sponsors including city, school, county, state, federal agencies, and private operators within or available to each measuring jurisdiction. NOTE: For the purposes of this plan, PCC and Marylhurst land has not been included in existing inventories, nor has it been used to estimate acres required to meet future needs.**

Total park lands

According to National Recreation & Park Association (NRPA) standards, a park and recreation system should provide approximately 34.45 acres of all types of park land per every 1,000 persons in the population.

	Standards	Existing supply		Recmnd
	NRPA	LO	All total	Add/std*
Acres of park land		675.1	2,341.5	16.0
Ratio per 1,000**	34.45	19.68	68.27	60.05

**Identifies additional land or facilities recommended to be added and the level-of-service per 1,000 persons that will result from the addition and the projected population increase over the next 15-year planning period. The level-of-service ratio will decline due to additional population increase if no additional land or facilities are recommended.*

*** Ratio is expressed per 1,000 residents within Lake Oswego (population of 34,300) under LO and for all public and private facilities under All total and Recommended additional standard.*

By comparison, Lake Oswego owns 675.1 acres of park and open space land or about 19.76 acres per every 1,000 residents of the city. All public and private agencies including Lake Oswego School District, Oregon State Parks, Portland Community College, the National Guard, and other public and private organizations own 2,341.5 acres or about 68.27 acres per every 1,000 persons within the urban growth boundary.

Generally, the city, school district, and state combined provide a significant amount of land for park and recreation interests within the urban growth boundary to satisfy most local and significant regional interests.

However, even though significant, the present allocation is not balanced between different types of park and recreation land requirements. Another 16.0 acres for a total equal to a ratio of 60.05 acres per 1,000 residents should be acquired to meet needs in the near future. The resulting standard should be sufficient to provide for local needs and to conserve important regional attributes within the urbanizing areas. **Please note that should lands be used in a manner other than recommended in this plan, additional lands may need to be acquired to meet future demand.**

Wildlife habitat/resource conservancies

Open space preservation or resource conservancies are designed to protect and manage a natural and/or cultural feature, environment or facility - such as a wetland or unique habitat, a natural landmark or a unique cultural setting. By definition, resource conservancies are defined by areas of natural quality for nature-oriented outdoor recreation, such as viewing and studying nature, wildlife habitat, and conservation. Open space preservations or resource conservancies should be located to encompass diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, and topography. Recreational use may be a secondary, non-intrusive part of the property - such as an interpretative trail, viewpoint, exhibit signage, picnic area or other feature.

According to the NRPA, a suitable standard for resource conservancies is about 10.00 acres per every 1,000 residents. In practice, however, there are no minimum or maximum standards concerning conservancies - a site should provide whatever is necessary to protect the resource.

Existing and Proposed Level-of-Service Standards ¹ (ELOS/PLOS - local/regional)

2000 population in city: 34,300
2015 population in city: 39,262

Land	units	2000 inventory			ELOS/city		PLOS		PNW			NRPA Stnds /1000 1983		
		City	All public	All public/ private	City	All public	All public/ private	City fcly addns	All public/ private	Participation model per 1,000 population				
										1990	2000	2010		
1	resource conservancy	acres	525.2	1,130.2	1,800.3	15.31	32.95	52.49	45.85					10.00
2	resource activities	acres	20.3	64.3	68.3	0.59	1.87	1.99	10.0	1.99				16.50
3	linear trails	acres	30.2	30.2	106.1	0.88	0.88	3.09	2.0	2.75				4.85
4	athletic flds/plygrnds	acres	44.1	109.6	130.1	1.29	3.20	3.79		3.31				3.10
5	rcn centers/pools	acres	4.0	11.0	46.4	0.12	0.32	1.35	2.0	1.23				
6	special use facilities	acres	46.3	51.3	185.3	1.35	1.50	5.40	2.0	4.77				
7	support facilities	acres	5.0	5.0	5.0	0.15	0.15	0.15		0.13				
Subtotal for land			675.1	1,401.6	2,341.5	19.68	40.86	68.27	16.0	60.05				34.45

* NOTE: The plan proposes an additional 16 acres of land be purchased to meet future demand based upon the assumption that existing city-owned land is available for use in the future as outlined in the plan. Should this land be used in a manner other than recommended, additional lands may need to be acquired to meet future demand.

Facilities

1 a	picnic tables	tables	63	87	113	1.84	2.54	3.29	83	4.99	1.77	1.71	1.67	na
b	picnic shelters	shelters	7	7	7	0.20	0.20	0.20	11	0.46				
2 a	swimming beach	sq ft	3	5	6	0.09	0.15	0.17	1	0.18				
b	swimming beach	parking	0	0	0	0.00	0.00	0.00		0.00	2.14	2.09	1.99	na
3 a	powerboat launch ramps	each	0	1	2	0.00	0.03	0.06	2	0.10				
b	handcarry launch sites	each	3	3	9	0.09	0.09	0.26	2	0.28				
c	floating platforms	sq ft	4000	4000	4000	116.62	116.62	116.62	2000	152.82				
d	docks/piers	sq ft	2000	2000	2000	58.31	58.31	58.31	1000	76.41				
e	boat slips	sq ft	4	4	4	0.12	0.12	0.12	4	0.20				
4	power boat trailheads	parking	0	0	0	0.00	0.00	0.00		0.00				
5 a	tent camping	cmpste	0	0	0	0.00	0.00	0.00		0.00	1.28	1.21	1.15	na
b	vehicle camping	cmpste	0	0	0	0.00	0.00	0.00		0.00	2.00	2.02	2.03	na
6 a	walking park-asphalt	miles	4.0	4.0	4.0	0.12	0.12	0.12	5.6	0.24	0.13	0.13	0.13	na
b	walking park-dirt	miles	7.3	7.3	7.3	0.21	0.21	0.21	7.2	0.37				
7 a	walking trail-asphalt	miles	25.3	28.3	46.3	0.74	0.83	1.35	22.3	1.75	0.15	0.15	0.14	0.50
b	walking trail-dirt	miles	0.0	8.0	8.0	0.00	0.23	0.23		0.20				
	streetscape-concrete	miles	0.0	0.0	0.0	0.00	0.00	0.00	1.4	0.04				
	gateways	each	0	0	0	0.00	0.00	0.00	11	0.28				
8 a	backpacking trail	miles	0.0	0.0	0.0	0.00	0.00	0.00		0.00				
9 a	bicycling trail-asphalt	miles	1.0	4.0	22.0	0.03	0.12	0.64	9.0	0.79	0.30	0.30	0.29	0.50
b	bicycling trail-dirt	miles	0.0	0.0	0.0	0.00	0.00	0.00		0.00				
c	bicycling trailhead	parking	0	1	1	0.00	0.03	0.03	5	0.15				
10 a	bicycling road-marked	miles	29.9	29.9	29.9	0.87	0.87	0.87	11.6	1.06	0.03	0.03	0.03	na
b	bicycling road-unmarked	miles	0.0	0.0	0.0	0.00	0.00	0.00		0.00				
11 a	equestrian trail	miles	0.0	3.5	4.3	0.00	0.10	0.12	3.4	0.19	0.12	0.11	0.11	na
b	equestrian trailhead	parking	0	1	2	0.00	0.03	0.06	1	0.08				
12 a	playgrounds covered	plygrnd	0	0	0	0.00	0.00	0.00		0.00				
b	playgrounds uncovered	plygrnd	12	22	24	0.35	0.64	0.70	10	0.87	0.60	0.56	0.53	
13 a	play areas-not improved	acres	0.0	0.0	0.0	0.00	0.00	0.00		0.00				
b	play areas-improved	acres	0.0	0.0	0.0	0.00	0.00	0.00		0.00				
14	skateboard court	each	1	1	1	0.03	0.03	0.03	2	0.08				
15	handball-4 wall	court	0	0	0	0.00	0.00	0.00		0.00				
16 a	basketball-covered	court	0	16	16	0.00	0.47	0.47		0.41				
b	basketball-uncovered	court	3	5	5	0.09	0.15	0.15		0.13	0.10	0.10	0.09	0.30
17 a	volleyball-covered	court	0	0	0	0.00	0.00	0.00		0.00				
b	volleyball-uncovered	court	0	0	0	0.00	0.00	0.00		0.00				0.20
c	volleyball-sand	court	1	1	2	0.03	0.03	0.06	12	0.36				

Land	units	2000 Inventory			ELOS/city		PLOS		PNW			NRPA Stnds /1000 1983		
		City	All public	All public/ private	City	All public	All public/ private	City fcilty addns	All public/ private	Participation model per 1,000 population				
										1990	2000		2010	
18 a	tennis-indoor	court	4	4	15	0.12	0.12	0.44		0.38	0.24	0.23	0.22	0.50
b	tennis-outdoor lighted	court	0	3	7	0.00	0.09	0.20		0.18				
c	tennis-outdoor unlighted	court	5	20	24	0.15	0.58	0.70		0.61				
19 a	football-regulation	field	0	6	6	0.00	0.17	0.17		0.15				0.05
b	football-nonregulation	field	0	0	0	0.00	0.00	0.00		0.00				
20 a	soccer-regulation-lighted	field	2	5	5	0.06	0.15	0.15	3	0.20	0.32	0.31	0.29	0.10
b	soccer-regulation-unlighted	field	1	7	7	0.03	0.20	0.20	4	0.28				
c	soccer-youth lighted	field	0	3	3	0.00	0.09	0.09		0.08				
d	soccer-youth unlighted	field	0	3	3	0.00	0.09	0.09	1	0.10				
21	field hockey/lacrosse	field	0	0	0	0.00	0.00	0.00		0.00				0.05
22 a	ballfield-300+grss/lighted	field	3	5	5	0.09	0.15	0.15	3	0.20	0.53	0.52	0.49	0.40
b	ballfield-300+grss/unlighted	field	0	1	1	0.00	0.03	0.03		0.03				
c	ballfield-250+dirt/lighted	field	0	0	0	0.00	0.00	0.00	1	0.03				
d	ballfield-250+dirt/unlighted	field	0	0	0	0.00	0.00	0.00	4	0.10				
e	ballfield-nonregulation	field	0	0	0	0.00	0.00	0.00		0.00				
f	ballfield-200+ lighted	field	4	9	9	0.12	0.26	0.26		0.23				
g	ballfield-200 unlighted	field	0	9	9	0.00	0.26	0.26		0.23				
23	parcourse	stns	0	0	0	0.00	0.00	0.00		0.00				
24 a	jogging track-surface	miles	0.00	0.75	0.75	0.00	0.02	0.02		0.02	0.02	0.02	0.02	0.05
b	jogging track-dirt	miles	0.00	0.00	0.00	0.00	0.00	0.00		0.00				
25 a	swimming pool-indoor	sq ft	0	3000	6200	0.00	87.46	180.76	9000	387.14	541	527	503	0.05
b	swimming pool-outdoor	sq ft	0	0	6000	0.00	0.00	174.93		152.82				
26	indoor gymnasium	sq ft	0	98000	123000	0.00	2857.14	3586.01	10000	3387.50				
27	physical conditioning	sq ft	0	4000	12400	0.00	116.62	361.52	4000	417.71				
28 a	racquetball-indoor	each/sf	0	0	0	0.00	0.00	0.00		0.00				
b	handball-indoor	each/sf	0	0	0	0.00	0.00	0.00		0.00				
29	arts/crafts room ²	sq ft	2000	18500	18500	58.31	539.36	539.36	4000	573.07				
30	class/meeting room ²	sq ft	2500	15600	31600	72.89	454.81	921.28	2000	855.79				
31	auditorium ²	sq ft	5000	12200	30400	145.77	355.69	886.30	4000	876.17				
32	kitchen facilities ²	sq ft	800	800	2000	23.32	23.32	58.31	800	71.32				
33	dining facilities ²	sq ft	0	0	0	0.00	0.00	0.00		0.00				
34 a	daycare/nursery	sq ft	0	0	20400	0.00	0.00	594.75	1200	550.15				
b	pre/after-school	sq ft	0	Na	0	0.00	0.00	0.00		0.00				
c	senior/teen ²	sq ft	8000	8000	8000	233.24	233.24	233.24	2000	254.70				
35 a	community center admin	sq ft	0	0	0	0.00	0.00	0.00		0.00				
b	community center other	sq ft	0	0	0	0.00	0.00	0.00		0.00				
36 a	nature center	sq ft	0	2000	2000	0.00	58.31	58.31	5000	178.29				
b	museum	sq ft	0	0	3000	0.00	0.00	87.46	7400	264.89				
37 a	golf-par 3/18 hole	holes	18	18	36	0.52	0.52	1.05		0.92	0.41	0.42	0.43	0.13
b	driving range	tees	1	1	2	0.03	0.03	0.06		0.05				
c	golf-clubhouse	sq ft	3000	3000	6000	87.46	87.46	174.93		152.82				
d	golf-maintenance	sq ft	1000	1000	2500	29.15	29.15	72.89		63.67				
38 a	gun range-outdoor	target	0	0	0	0.00	0.00	0.00		0.00	0.14	0.13	0.13	0.02
b	archery range-outdoor	target	0	0	0	0.00	0.00	0.00		0.00	0.06	0.06	0.05	0.02
39	amphitheater	each	3000	4200	4200	87.46	122.45	122.45	3000	183.38				0.01
40 a	parks administration	sq ft	4000	4000	4000	116.62	116.62	116.62	1200	132.44				
b	parks maintenance bldg	sq ft	6000	6000	6000	174.93	174.93	174.93	2600	219.04				
c	parks shop yard/nursery	sq ft	0	0	0	0.00	0.00	0.00		0.00				
d	parks caretaker houses	each/sf	0	0	0	0.00	0.00	0.00		0.00				
e	restrooms-permanent	fixtures	52	60	76	1.52	1.75	2.22	64	3.57				
f	restrooms-temporary	each	0	0	0	0.00	0.00	0.00		0.00				
Subtotal facility units			41554	186694	292722	1211.50	5442.96	8534.18	59484	8970.68				

1 - The ELOS/PLOS spreadsheet shows the existing level of service per 1000 people within the current parks system. It also indicates the land or facilities to be added to meet current standards (Proposed Level of Service additions - PLOS). In some cases, the consultant has recommended a higher PLOS standard to meet greater demand in Lake Oswego or a lower PLOS to reflect changing regional and/or national standards.

2 - Current inventory is limited only to adult use at the Adult Community Center.

Source: Recreation, Parks & Open Space Standards & Guidelines, National Recreation & Park Association (NRPA), 1983.

Wildlife habitat/resource conservancies (cont.)

	Standards		Existing supply		Recmnd
	NRPA		LO	All total	Add/std
Acres of park land			525.2	1,800.3	0.0
Ratio per 1,000	10.00		15.31	52.49	45.85

City park and open space lands combined presently provide 15.31 acres of open space and resource conservancies per 1,000 Lake Oswego residents. All other agencies combined provide 52.49 acres per 1,000 city residents.

These relatively high ratios include the extensive resource landholdings of Tryon Creek State Park, Portland Community College, Marylhurst College, and numerous homeowner association commonly owned properties.

Consequently, the present set aside of conservation land may be sufficient to provide for habitat, natural areas, and other open space objectives if linked into effective natural systems.

Resource activities

Resource activities are defined by areas of natural or ornamental quality for outdoor recreation, such as picnicking, boating, fishing, swimming, camping, and local park trail uses. The site may also include play areas, such as playgrounds and open grassy playfields as long as these areas support the primary outdoor recreational features. The site should be contiguous to or encompassing natural resources including resource conservancies and may be easily accessible to several communities.

According to the NRPA, a suitable standard for resource conservancies is about 16.50 acres per every 1,000 residents. In practice, however, there are no minimum or maximum standards concerning conservancies - a site should provide whatever is necessary to protect the resource.

	Standards		Existing supply		Recmnd
	NRPA		LO	All total	Add/std
Acres of park land			20.3	32.95	10.0
Ratio per 1,000	16.50		0.59	1.87	1.99

City lands presently provide 0.59 acres of resource activities per 1,000 Lake Oswego residents. All other agencies combined provide 1.87 acres per 1,000 city residents.

Consequently, the present supply (existing level-of-service (ELOS) standard) should be increased by another 10.0 acres in the near future to possibly include the acquisition and development of additional waterfront activities along the Willamette River at the Portland Chip Plant next to Roehr Park.

Linear trails

Linear trails are built or natural corridors, such as abandoned railroad lines, undeveloped road-rights-of-way, and active utility rights-of-way or natural areas defined by drainage features, topographical changes, wooded areas or vegetation patterns that can link schools, libraries or commercial areas with parks. Generally, linear trails may be developed for multiple modes of recreational travel such as hiking, biking or horseback riding. The trail system may parallel established vehicular or other

transportation systems, but apart from and usually within a separate right-of-way. Linear trail corridors may also include active play areas or trailhead development located in any of the other types of park land described above.

Trail systems should be anchored by public facilities, like a school or park that may serve as a destination or trailhead, and extend into the surrounding residential areas using natural features or established roads, sidewalks or other safe travel corridors. Ideally, a minimum trail system should be at least 3-5 miles long and provide the ability to loop back to the point of origin. The trail should be sufficiently wide enough to provide for the type of trail user(s) that it is accommodating, preserve the features through which the trail is traveling, and buffer adjacent land use activities.

According to the NRPA, a suitable standard for linear park trails is about 0.5 miles of hiking and jogging trail and 0.5 miles of separate biking trail per 1,000 population. This is the equivalent of 4.85 acres of linear park trail facility units per 1,000 population if the different types are provided within a combined multi-use corridor - assuming the trail is used primarily by local residents.

	Standards	Existing supply		Recmnd
	NRPA	LO	All total	Add/std
Acres of park land		30.2	60.4	2.0
Ratio per 1,000	4.85	0.88	1.76	1.59

City land presently provides 0.88 miles of linear trail corridor per 1,000 Lake Oswego residents. All public agencies combined provide 1.76 acres of linear trail systems per 1,000 city residents - not including the extensive private HOA trails.

The present supply should be increased by another 2.0 acres in the near future to allow for the extension of the Willamette River Trail through the Portland Chip Plant or as an addition to Roehr Park.

Athletic fields and playgrounds

Athletic fields and playgrounds are designed for intense recreational activities like field and court games, playground apparatus areas, picnicking, wading pools, and the like. A suitable athletic field and playground site should be capable of sustaining intense recreational development. The site should be easily accessible to the using population and ideally should be linked to the surrounding area by walking and biking trails and paths. Typically, athletic fields and playgrounds may be included within or jointly developed in association with an elementary, middle or high school facility.

The desired service area for an athletic field or playground complex depends on the competitive quality to which the facility is developed and the resident using population that the site is intended to serve. Regionally oriented athletic sites may include 4 or more competitive, high quality soccer, baseball or softball fields serving organized leagues drawn from a number of surrounding communities or areas - which may include the approximate service area for a high school.

Local (community or neighborhood) oriented athletic fields and playgrounds may consist primarily of a playground and a grassy play area, possibly including 1 or more practice or non-regulation athletic field. Local athletic fields and playgrounds serve residents of an immediately surrounding residential area from a quarter to half-mile radius - which is the approximate service area for an elementary school.

According to the NRPA, a suitable standard for athletic fields and playgrounds is 3.10 acres per 1,000 population.

	Standards	Existing supply		Recmnd
	NRPA	LO	All total	Add/std
Acres of park land		42.2	159.9	0.0
Ratio per 1,000	3.10	1.23	4.66	4.07

City land presently provides 1.23 acres per 1,000 Lake Oswego residents of athletic fields and playgrounds. Other public and private agencies combined provide 3.79 acres per every 1,000 residents.

While the total supply of athletic field and playground land is significant, the total includes a significant inventory of non-regulation fields that cannot support competition games or practices. However, the city and other agencies own significant lands in their inventory that can be developed for additional fields and playgrounds.

Consequently, the present supply should be sufficient to meet the growing needs of local urban area residents to the year 2015. *(NOTE: PCC and Marylhurst acreages have not been included in existing land inventories, nor has it been used to estimate future land needs.)*

Recreation centers/pools

Recreation centers and pools are indoor and outdoor facilities providing swimming pools, physical conditioning, gymnasiums, arts and crafts, classrooms, meeting rooms, kitchen facilities, and other spaces to support public recreation programs for school-age children (but not students), teens, senior, and other resident populations on a full-time basis. For the purposes of this study, recreation centers and pools are defined to include all city, county, and school-owned facilities that are available for public use. By definition, recreation centers do not include all other school buildings or private-for-profit enterprises.

The desired service area for a recreation center/pool depends on the extent of the recreational program services to be offered in the facility and the building's potential size and site relationships. Regionally oriented recreation centers may include a variety of facility spaces including competitive swimming or diving pools, gymnasiums or courts, classroom and meeting facilities, a teen, senior center, and a daycare facility providing at least 7,500 square feet of indoor building space. And/or a regionally oriented recreation center may be jointly sited with an athletic park or playground, or in association with a library, civic center or other public meeting facility. Regionally oriented recreation centers may be jointly shared with school districts or a part of other city or county building complexes that serve a city or larger surrounding community area.

Local recreation centers may consist primarily of a single facility use - like a classroom or gymnasium complex that is less than 4,000 square feet in area and that may be sited as a lone building oriented to a single user group - like a teen or senior center. Local recreation centers serve residents of an immediately surrounding residential area from a quarter to half-mile radius - which is the approximate service area for an elementary school. There are no NRPA standards for recreation centers or other indoor facilities.

Recreation centers/pools (cont.)

	Standards		Existing supply		Recmnd
	NRPA		LO	All total	Add/std
Acres of park land			4.0	11.0	2.0
Ratio per 1,000	Na		0.12	0.29	0.31

City land presently provides 0.12 acres per 1,000 Lake Oswego residents. All public and private agencies combined provide 0.29 acres per 1,000 city residents.

The existing level-of-service would likely meet recreation center objectives were the inventory to include indoor space provided by Lake Oswego School District facilities. However, these facilities are not available for use during school hours to meet the needs of seniors, parents, or preschool children. Consequently, another 2.0 acres should be acquired in the near future to include the possible acquisition of a recreation center to service the adult daytime population, and adults and kids during evening summer months and holidays.

Special use facilities

Special use facilities are single-purpose recreational activities like arboreta, display gardens, nature centers, golf courses, marinas, zoos, conservatories, arenas, outdoor theaters, and gun and archery ranges. Special use facilities may include areas that preserve, maintain, and interpret buildings, sites, and other objects of historical or cultural significance, like museums, historical landmarks, and structures. Special use areas may also include public plazas or squares or commons in or near commercial centers, public buildings or other urban developed areas.

There are no standards concerning the development of special use facilities - demand being defined by opportunity more than a ratio standard. Nor are there minimum or maximum facility or site sizes - size being a function of the facility rather than a separately established design standard.

	Standards		Existing supply		Recmnd
	NRPA		LO	All total	Add/std
Acres of park land			46.3	185.3	2.0
Ratio per 1,000	Na		1.35	5.40	4.77

City land presently provides 1.35 acres per 1,000 Lake Oswego residents devoted to museums, interpretive centers, or similar special use facilities. Other public and private agencies provide a ratio of 5.40 acres per 1,000 city residents.

Market conditions or strategic opportunities may determine any increase in these facilities. However, there are strategic sites in the planning proposals that could combine special purpose facilities like a museum with other outdoor recreation opportunities.

Support facilities

Support facilities include administrative office space, indoor meeting rooms, shop and equipment maintenance yards, plant nurseries, and other buildings and sites necessary to service the park system.

There are no standards concerning the development of support use facilities - demand being defined by functional operating requirements more than a ratio standard. Nor are

there minimum or maximum facility or site sizes - size being a function of the type of facility space required and whether the facility space is shard with other jurisdiction support functions rather than a separately established design standard.

	Standards		Existing supply		Recmnd
	NRPA		LO	All total	Add/std
Acres of park land			5.0	10.0	0.0
Ratio per 1,000	Na		0.15	0.29	0.25

City land provides 0.15 acres of park supporting facilities per 1,000 Lake Oswego residents including a portion of the Lake Oswego City Hall, Library, Maintenance Shop, and Luscher Farm outbuildings. Other public and private agencies combined provide 0.15 acres per 1,000 city residents.

This level-of-service is sufficient to provide equipment and facility space for the maintenance and operation of the existing park and recreation inventory.

6.2 Facility requirements

The following discussion addresses the types of facilities needed to meet current and future demand for parks and recreation services. Results are based upon a combination of national standards and Pacific Northwest Region participation models.

Participation models - park and recreation facility requirements can be determined using variations of participation models - which are refined, statistical variations of a questionnaire or survey method of determining recreational behavior. Participation models are usually compiled using activity diaries, where a person or household records their participation in specific recreational activities over a measurable period of time. The diary results are then compiled to create a statistical profile that can be used to project the park and recreation behavior of comparable persons, households or populations.

Participation models are most accurate when the participation measurements are determined for a population and area that is local and similar enough to the population that is to be projected by the model. The most accurate participation models are usually controlled by climatic region and age, and are periodically updated to measure changes in recreational behavior in specific activities or areas over time.

Properly done, participation models can be very accurate predictors of an area's facility requirements in terms that are specific and measurable. However, though accurate, participation models can be somewhat abstract, and if not combined with other methods of gathering public opinion, the method can fail to determine the qualitative issues of an area's facility demands in addition to a facility's quantitative requirements.

For example, an area might provide the exact facility quantities that are required to meet the resident populations park and recreation demands, such as a mile of walking trail. However, the facility might not be provided with the quality, program service or other important, but less measurable aspect that make the facility quantity effective and the activity a pleasurable experience. The walking trail, for example, might be located in an area of uninteresting scenery and/or in an inaccessible location.

This planning effort utilizes the results of recent recreation modeling by Oregon, Washington, and Idaho for six age groups (male and female) for the western regions of the states. Estimates were developed for 21 park and recreation activities that were determined to be of most interest to the residents of Lake Oswego.

The estimates were developed for each activity demand for the peak season periods that would most impact facility capacities and thereby the level of service to local residents. The estimated demands were calculated in facility unit terms based on an assumed capacity and turnover rate common to the findings of the diary surveys. The projected facility unit requirements were then converted into a simple facility unit per 1,000 residents ratio to allow comparison with similar standards developed by the NRPA and found to be the existing facility level-of-service (ELOS) for each activity.

Ratio standards - a number of organizations maintain ratio standards concerning park and recreation facilities - including the National Recreation & Park Association (NRPA). National population ratio standards are not as accurate as regionally based participation models since the national ratios do not account for differences in region, climate, age or other characteristics that can be controlled under the participation model. In addition, the participation model can also account for a facility capacity standard that may be expressed through management policies or local population preferences concerning volume of use or the degree of crowding that is satisfactory.

Nonetheless, a comparison was accomplished of the results of the participation model projections and common ratio standards maintained by various industry sources. Generally, the results indicate that the Pacific Northwest's existing and projected age characteristics will create a unique set of facility standards.

"NRPA" refers to the National Parks & Recreation Association standard and "PNW" refers to the Pacific Northwest in the following charts. See APP 67 for more information.

Picnic tables and shelters

The NRPA does not have a standard for picnic facilities. The participation model indicates public agencies should be providing a ratio of 1.77 picnic tables of all types (open and under shelters) per every 1,000 residents then gradually decline to 1.67 as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Picnic tables			63	113	83
Ratio per 1,000	Na	1.77	1.84	3.29	4.99
Picnic shelters			7	7	11
Ratio per 1,000	Na	Na	0.20	0.20	0.42

Lake Oswego presently provides a ratio of 1.84 tables and 0.20 shelters per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 3.29 tables and 0.20 shelters per 1,000 city residents - though this supply includes tables maintained at state parks used by out-of-area residents.

In general, Lake Oswego facilities do not provide a sufficient number of tables with which to meet the requirements for local resident populations and the large number of regional users who frequent local park sites during peak summer weeks and events. Nor are the tables and shelters equally distributed to provide access to all neighborhoods and residential areas.

Consequently, another 83 picnic tables and 11 shelters should eventually be added to key multi-use park and trail sites to meet local neighborhood residents needs and off-set out-of-area users during peak seasons.

Swimming at a beach (waterfront access)

The NRPA does not have a standard for swimming beaches. There is no behavioral data with which the participation model can project swimming beach requirements.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Swim beach - site			3	6	1
Ratio per 1,000	Na	Na	0.09	0.17	0.18

Lake Oswego presently provides a ratio of 0.09 swimming beaches per 1,000 city residents. All public and private agencies provide a ratio of 0.17 beach sites per 1,000 city residents though all of these facilities are shared with out-of-area residents and private lake corporation members. Generally, swimming beach facilities front onto Oswego Lake (private) rather than the Willamette or Tualatin Rivers.

Consequently, an additional swimming beach facility should eventually be developed at the proposed Roehr Park Addition on the Willamette River at the Portland chip plant site to meet future population growth requirements and off-set increasing demands from out-of-area residents.

Fishing/boating

The NRPA does not have a standard for fishing or boating facilities. There is no behavioral data with which the participation model can project boat launch ramps, floating piers, boat moorage slips, dock and overlook structures, hand-carry or car-top, sail or power boat launch ramp trailer parking spaces.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Boat launch ramps			0	2	1
Ratio per 1,000	Na	Na	0.00	0.06	0.18
Car-top launch sites			1	7	2
Ratio per 1,000	Na	Na	0.03	0.20	0.23
Floating platform sq ft			4,000	4,000	2,000
Ratio per 1,000	Na	Na	116.62	116.62	152.82
Docks/pier sq ft			2,000	2,000	1,000
Ratio per 1,000	Na	Na	58.31	58.31	76.41
Moorage slips			4	4	4
Ratio per 1,000	Na	Na	0.12	0.12	0.20

Lake Oswego presently provides a ratio of 0.03 car-top launch sites, 116.62 square feet of floating platform, 58.31 square feet of docks and piers, and 0.12 transitory boat slips per 1,000 Lake Oswego residents - but no powerboat launch ramps. All public and private agencies combined provide a ratio of 0.06 boat launch sites, 0.20 car-top launch sites, 116.62 square feet of floating platform, 58.31 square feet of docks and piers, and 0.12 transit moorage slips per 1,000 city residents.

These facilities are used on a regional basis by populations who reside in and outside the Lake Oswego urban growth boundary on a regular basis due to a lack of similar public

access opportunities and facilities on Oswego Lake, the Willamette and Tualatin Rivers - and sometimes during special events.

Consequently, a powerboat launch ramp, 2 car-top boat launch sites, 2,000 square feet of floating platform, 1,000 square feet of pier, and 4 transitory boat slips should eventually be added to the inventory. The facilities may be sited at the Roehr Park Addition on the Willamette River and a car-top launch site on the Tualatin River at River Run Park to provide public access to waterfront areas not currently available.

Tent and vehicle camping

The NRPA does not have a standard for tent or vehicle campsites. The participation model indicates public agencies should provide a ratio of 1.28 tent campsites and 2.00 vehicle campsites per every 1,000 residents then gradually decline to 1.15 tent and increase to 2.03 vehicle campsites as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Tent campsites			0	0	0
Ratio per 1,000	Na	1.28	0.00	0.00	0.00
Vehicle campsites			0	0	0
Ratio per 1,000	Na	2.00	0.00	0.00	0.00

No public or private agency in the Lake Oswego area provide tent or vehicle camping facilities - nor is the urban area suitable for such uses. A variety of tent and vehicle camping facilities are provided in nearby state parks within a 30 to 60 minute driving radius of the city.

These facilities should be sufficient to meet local requirements for this activity.

Local park trails

The NRPA does not have a standard for local park walking trails. The participation model indicates public agencies should be providing a ratio of 0.13 miles of park walking trails per every 1,000 residents during the 1990s and into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Park trail miles			11.3	11.3	12.8
Ratio per 1,000	Na	0.13	0.33	0.33	0.61

Lake Oswego presently provides a ratio of 0.33 miles of local park trails per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.33 miles of local park trail per 1,000 city residents.

Walking activities are growing at a rate faster than indicated in the participation model projections - particularly for older adults in local park settings next to residential neighborhoods. In addition, out-of-area residents often frequent parks with unique natural area settings, historical landmarks, or other unique and interesting features on weekends and holidays.

Consequently, the present supply is not sufficient to provide access to the numerous natural areas, waterfront sites, historical landmarks and other features of interest to local and out-of-area residents. Another 12.8 miles should be added to the inventory in the near future to increase access within city parks.

Walking/biking on an off-road trail

The NRPA recommends a combination ratio of 0.50 miles walk and bike trail per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 0.15 miles of walking or hiking trails and 0.30 miles of bicycling trails within a separated multipurpose trail corridor per every 1,000 residents. The ratio will decline to 0.14 walking and 0.29 biking trails per 1,000 residents as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Walking trail miles			25.3	36.3	22.3
Ratio per 1,000	0.50	0.15	0.74	1.06	1.49
Biking trail miles			1.0	4.0	9.0
Ratio per 1,000	0.50	0.30	0.03	0.12	0.33

Lake Oswego presently provides a ratio of 0.74 miles of hiking and 0.03 miles of biking trail facilities per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 1.06 miles of hiking and 0.12 miles of biking trail per 1,000 city residents.

Trail hiking and biking activities are growing at a rate faster than indicated in the NRPA and participation model projections - particularly as a form of commuting to jobs, schools, and other facilities, as well as for recreational enjoyment. In addition, out-of-area residents often frequent hike and bike trails that provide access to or through unique natural area settings, historical landmarks, or other unique and interesting features on weekends and holidays.

Consequently, the present supply is not sufficient to provide trail access to the numerous natural areas, waterfront sites, historical landmarks and other features of interest to local and out-of-area residents within city parks. Another 22.3 miles of hiking trail and 9.0 miles of biking trail should be added to the inventory in the near future to increase access.

Bicycling on a road

The NRPA does not have a standard for bicycle touring. The participation model indicates public agencies should be providing a ratio of 0.03 miles of designated and shoulder improved roadways per every 1,000 residents - assuming local roads provide routes with interesting viewpoints and other characteristics preferred by bike touring enthusiasts.

Note - bicycle touring is a specialized form of bicycling activity and is not the same as bicycling on a trail or bicycling on a road for commuter or other more functional purposes. Bicycle touring is usually accomplished by an organized group of cyclists on scenic roads or along scenic shoreline routes on designated road shoulders or sometimes in traffic on designated roadways.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Bicycling road miles			29.9	29.9	11.6
Ratio per 1,000	Na	0.03	0.87	0.87	1.06

Lake Oswego roadways currently provide 0.87 miles of specially marked bicycle lanes or routes on major commuter or recreational routes.

Bicycle touring interest groups and commuting school children unofficially use roadways of various conditions and standards along the most scenic roadways or between residential neighborhoods and local park and school facilities. Most of the routes favored by enthusiasts and school children are gradually being improved and designated to correct inadequate pavements, shoulder widths, and other safety standard concerns using roadway improvement funds and other non-motorized trail development monies.

In addition, a significant volume of regional or tourist bicycle touring groups also use local roadways due to the area's scenic beauty and relatively low traffic volumes.

Consequently, another 11.6 miles of improved and designated biking roadways should be added to the inventory in the near future to complete major linkages between existing roadways along scenic routes, within residential areas, and between major community attractions.

In addition, Lake Oswego should participate in a regional planning effort to ensure that cross-country touring routes are provided that will be of interest to local cycling enthusiasts throughout the Willamette River Valley.

Horseback riding on a trail

The NRPA does not have a standard for horseback riding trails. The participation model indicates public agencies should be providing a ratio of 0.12 miles of horseback riding trails per every 1,000 residents declining to 0.11 miles as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Horse trail miles			0.0	4.3	3.4
Ratio per 1,000	na	0.12	0.00	0.18	0.28

Lake Oswego does not currently provide horseback riding trails in the city park system. All public and private agencies combined provide a ratio of 0.18 miles per 1,000 city residents when private trails are included. Local residents as well as an increasing number of regional riding groups use these facilities to provide access to Tryon Creek Park and the Oswego Hunt Club's riding trails.

The number of horseback riding opportunities is diminishing within the urbanizing areas even as local residents continue to seek riding trail access. Consequently, another 3.4 miles of riding trail should eventually be added to the inventory to include trail linkages and access to rural area park sites like Luscher Farm.

Playgrounds

The NRPA does not have a standard for playground facilities. The participation model indicates public agencies should be providing a ratio of 0.60 playgrounds of all types per every 1,000 residents during the 1990s, then gradually decline to 0.53 playgrounds as the population ages to the year 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Playgrounds			12	24	10
Ratio per 1,000	Na	0.60	0.35	0.70	0.87

City facilities presently provide a ratio of 0.35 playgrounds per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.70 playgrounds per city 1,000 residents.

All public and private agency facilities combined are close to standards assuming most playgrounds are available for use by the general public and evenly distributed throughout the city. The present supply of playgrounds, however, is not evenly distributed to provide equal access to all neighborhood areas.

Consequently, another 10 playgrounds should be added in the near future to possibly include facilities located at undeveloped or single purpose park sites.

Skateboard court

There are no participation model standards for skateboard courts or parks - or similar rollerblade or in-line skating court activities. These are recent recreational phenomenon with no established service standards.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Skateboard courts			1	1	2
Ratio per 1,000	Na	Na	0.03	0.03	0.08

Lake Oswego recently developed a skateboard facility at the City Maintenance Shop creating a ratio of 0.03 skateboard courts per 1,000 Lake Oswego residents. This new facility may be sufficient to meet the needs of city residents for the near future.

However, 2 additional facilities could eventually be developed to augment other daytime and after hour activities at the Junior Highs or High Schools to provide an even distribution between city neighborhoods and where teens concentrate.

Outdoor basketball courts

The NRPA recommends a standard of 0.30 courts per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 0.10 basketball courts of all types per every 1,000 residents during the 1990s and then gradually decline to a ratio of 0.09 as the population ages.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Basketball courts			3	21	0
Ratio per 1,000	0.30	0.10	0.09	0.62	0.54

City facilities presently provide a ratio of 0.09 courts per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.62 courts per 1,000 city residents. These facilities should be sufficient to meet the needs of city residents for the near future.

Outdoor volleyball courts

The NRPA recommends 0.20 courts of all types per every 1,000 residents. There is no behavioral data with which the participation model can project volleyball requirements.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Volleyball courts			1	2	12
Ratio per 1,000	0.20	Na	0.03	0.06	0.36

City facilities currently provide a ratio of 0.03 volleyball facilities per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.06 facilities per 1,000 city residents. Consequently, another 12 courts should be added at undeveloped or single purpose parks in the near future to balance activities with other group picnic and recreation interests.

Tennis courts

The NRPA recommends a ratio of 0.50 indoor and outdoor courts per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 0.24 tennis courts of all types per every 1,000 residents during the 1990s then gradually decline to 0.22 as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Tennis courts-indoor			4	11	0
Ratio per 1,000	0.50*	0.24*	0.12	0.44	0.38
Tennis courts-outdoor			8	35	0
Ratio per 1,000	0.50*	0.24*	0.23	0.90	0.79

* NRPA and PNW standards are for the composite total of indoor and outdoor courts.

City facilities currently provide a ratio of 0.12 indoor and 0.23 outdoor courts per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.44 indoor and 0.90 outdoor courts per 1,000 city residents.

The Pacific Northwest is experiencing greater demand for year round tennis, as a result, the present supply of indoor public courts do not meet needs during rainy portions of the year, primarily late fall through early spring. Existing public and private facilities meet tennis needs for residents and school children during summer months.

Football fields

The NRPA recommends a ratio of 0.05 fields per 1,000 residents. There is no behavioral data with which the participation model can project football fields.

	Standards		Existing supply		Recmnd Add/std*
	NRPA	PNW	LO	All total	
Football fields			0	6	
Ratio per 1,000	0.10	0.32	0.00	0.17	0.15

Lake Oswego does not provide football fields. All public and private agencies combined provide a ratio of 0.17 fields per 1,000 city residents - although the supply includes practice or non-regulation fields not capable of competition play and some school fields not available for public use.

In general, existing facilities meet football field requirements. Consequently, the present supply should be sufficient to meet local needs.

Soccer fields

The NRPA recommends a ratio of 0.10 fields per 1,000 residents. The participation model indicates public agencies should provide a ratio of 0.32 fields of all types (regulation and practice or junior sized) per every 1,000 residents during the 1990s then gradually decline to 0.29 as the population ages to 2010.

	Standards		Existing supply		Recmnd Add/std*
	NRPA	PNW	LO	All total	
Soccer fields			3	18	8
Ratio per 1,000	0.10	0.32	0.09	0.53	0.66

* Includes 7 new fields and 1 field upgrade.

Lake Oswego presently provides a ratio of 0.09 fields per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 0.53 fields per 1,000 city residents - however, the supply includes practice or non-regulation fields not capable of accommodating competition play and some school fields not available for public use.

Soccer activities, particularly coed leagues, are growing at a rate faster than indicated in the NRPA ratio and participation model projections. In addition, leagues are being organized on a regional rather than local basis within Lake Oswego and the surrounding areas.

Consequently, the existing supply may be improved in the near future and increased over time up to a total of another 8 fields to meet future population growth requirements and balance age-field size requirements.

Baseball/softball fields

The NRPA recommends a ratio of 0.40 fields per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 0.53 baseball and softball fields of all types (adult, bronco, and little league regulation and practice) per every 1,000 residents during the 1990s then gradually decline to 0.49 as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std*
Baseball/softball fields			7	24	8
Ratio per 1,000	0.40	0.53	0.21	0.70	0.82

* Includes 4 new fields and 4 field upgrades.

Lake Oswego presently provides a ratio of 0.21 fields per 1,000 Lake Oswego residents – although the supply includes a number of undersized and unimproved non-regulation fields. All public and private agencies combined provide a ratio of 0.70 fields per 1,000 city residents – however, the supply includes practice or non-regulation fields not capable of accommodating competition play and some school fields not available for public use.

Baseball and softball activities, particularly coed leagues, are growing at a rate faster than indicated in the NRPA ratio and participation model projections. In addition, leagues are being organized on a regional rather than local basis within Lake Oswego and the surrounding areas.

Consequently, the existing supply may be improved in the near future and increased over time up to a total of another 8 fields to meet future population growth requirements and balance age-field size requirements.

Jogging tracks

The NRPA recommends a ratio of 0.05 miles per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 0.02 miles of jogging tracks of all types (special and dirt surface) per every 1,000 residents during the 1990s and into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Jogging track miles			0.00	0.75	0.00
Ratio per 1,000	0.05	0.02	0.00	0.02	0.02

Lake Oswego does not provide jogging track facilities. All public and private agencies combined provide a ratio of 0.02 miles of track per 1,000 city residents.

In general, existing facilities meet track objectives. Consequently, the present supply is sufficient to meet local requirements.

Swimming at a pool

The NRPA recommends a standard of 0.05 swimming pool facilities per 1,000 residents. The participation model indicates public agencies should be providing a ratio of 541.00 square feet of swimming pool and related area per every 1,000 residents declining to 503.00 square feet as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std*
Swimming pool sq ft			0	12,200	7,000
Ratio per 1,000	0.05	541.00	0.00	355.69	489.02

* Includes renovation of the existing Lake Oswego High School pool, public access to Portland Community College, and the construction of another 4,000 square feet of indoor pool.

Lake Oswego does not currently provide indoor swimming facilities. All public and private agencies combined presently provide a ratio of 355.69 square feet per 1,000 city residents – including pools provided at private clubs and other membership facilities that are not available to the general public.

The Lake Oswego High School swimming pool is used for school educational instructions, athletic competitions, and some public activities. Assuming this pool is renovated but remains the only principal facility available for public use, the present supply may not be sufficient to meet needs of the future population.

The high school pool should be renovated in the near future and possibly expanded to accommodate instruction and competition needs along with public access to Portland Community College’s pool. In addition, another indoor facility should eventually be constructed to provide indoor, year-round swimming activities to the general public as well as for school and swim team needs.

Indoor recreation centers

The NRPA does not have a recreation center standard. There are no comparable participation model data with which to project demand for recreation centers.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std
Gymnasium sq ft			0	123,000	10,000
Ratio per 1,000	Na	Na	0.00	3586.01	3387.50
Physical condition sq ft			0	12,400	4,000
Ratio per 1,000	Na	Na	0.00	361.52	417.71
Racquetball/handball			0	0	0
Ratio per 1,000	Na	Na	0.00	0.00	0.00

Lake Oswego does not provide indoor gymnasiums, physical conditioning, or racquetball/handball court facilities. All public and private agencies combined provide a ratio of 3,586.01 square feet of gymnasium and 361.52 square feet of physical conditioning space but no racquetball/handball courts per 1,000 city residents – in school facilities and private athletic clubs.

The existing facilities are not sufficient to provide public access to recreational facilities by retired persons, at-home mothers, or workers during school hours or events now or for future population projections.

Another 10,000 square feet of gymnasium and 4,000 square feet of physical conditioning space should be added in the near future in a day-use facility.

Indoor community centers

The NRPA does not have a community center standard. There are no comparable participation model data with which to project demand for public indoor community center facilities.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std*
Arts and crafts sq ft			2,000	18,500	4,000
Ratio per 1,000	Na	Na	58.31	539.36	573.07
Classroom sq ft			2,500	31,600	2,000
Ratio per 1,000	Na	Na	72.89	921.28	855.79
Auditorium sq ft			5,000	30,400	4,000
Ratio per 1,000	Na	Na	145.77	886.30	876.17
Kitchen sq ft			800	2,000	800
Ratio per 1,000	Na	Na	23.32	58.31	71.32
Daycare/nursery sq ft			0	20,400	0
Ratio per 1,000	Na	Na	0.00	594.75	519.59
Senior/teen center sq ft			8,000	8,000	2,000
Ratio per 1,000	Na	Na	233.24	233.34	254.70

Lake Oswego presently provides a ratio of 58.31 square feet of arts and crafts, 72.89 square feet of classroom facilities, 145.77 square feet of large meeting space, 23.32 square feet of catering kitchen, 233.24 square feet of other space per 1,000 Lake Oswego residents- all at the Adult Community Center that is restricted by conditional use permit to serve only adults. The city does not provide day care space or after-school program space for youth. All public and private agencies combined provide a ratio of 539.36 square feet of arts and crafts, 921.28 square feet of classrooms, 886.30 square feet of auditorium, 594.75 square feet of daycare facilities, and 233.34 square feet of senior and teen space per 1,000 city residents - not including general purpose school classroom, kitchens, and other assembly facilities dedicated to education uses.

Most of this inventory is provided at schools that are not available for general public use during daytime hours or on weekends for preschool, seniors, or other at-home family members - or at churches, clubs, or commercial facilities requiring membership or fees.

Another 4,000 square feet of arts and crafts, 2,000 square feet of small meeting space, 4,000 square feet of large assembly space, and 800 square feet of catering area should be added in the near future for use by the general population. These proposed new facilities will provide for future population increases and broaden the services available for community activities - possibly in a combination arts and conferencing facility along the waterfront of interest to city as well as out-of-area users.

Nature centers and museums

The NRPA does not have a standard for nature centers and museums. There are no comparable participation model data with which to project the demand for nature centers and museum facilities.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std*
Nature center sq ft			0	2,000	5,000
Ratio per 1,000	Na	Na	0.00	58.31	178.29
Museum sq ft			0	3,000	7,400
Ratio per 1,000	Na	Na	0.00	87.46	264.89

Lake Oswego does not presently provide nature center exhibits or museum facilities. All other public and private agencies combined presently provide a ratio of 58.31 square feet of nature interpretive exhibits and a ratio of 87.46 square feet of museum per 1,000 city residents in a variety of public and private facilities.

Another 5,000 square feet of nature center and 7,400 square feet of museum space should be added to the inventory in the near future. The facilities should provide public environmental and historical interpretive exhibits and displays at Luscher Farm, the old riverboat, trolley, George Rogers Park, sites in the Roehr Park expansion into the Portland chip plant, and Bryant Woods-Canal Acres.

Golf course

The NRPA standard is 0.13 golf course holes per 1,000 residents. The participation model indicates public and private agencies should be providing a ratio of 0.41 holes of golf and related facilities per every 1,000 residents increasing to 0.43 holes as the population ages into 2010.

	Standards		Existing supply		Recmnd
	NRPA	PNW	LO	All total	Add/std*
Golf course holes			18	36	0
Ratio per 1,000	0.13	0.41	0.52	1.05	0.92

Lake Oswego presently provides a ratio of 0.52 holes of public golf per 1,000 Lake Oswego residents. All public and private agencies combined provide a ratio of 1.05 holes per 1,000 city residents - some of which are available for public play for a fee or membership.

Generally, the present market arrangement is sufficient to provide the golfing needs of local residents.

Existing Level-of-Service (ELOS) Requirements for City Facilities ¹

Population in development 1
 Population in city 2000 34,300
 Population in city 2015 39,262

Land	units	2000 ELOS		Year 2015		Facility cost /unit	Project/ per capita fee	Year 2006 funding deficit	
		fcilty total	standard /1000	facility rqmnt	deficit				
1	resource conservancy	acres	525.2	15.31	601.2	76.0	\$50,000	\$765.60	\$3,798,896
2	resource activities	acres	20.3	0.59	23.2	2.9	\$75,000	\$44.39	\$220,252
3	linear trails	acres	30.2	0.88	34.6	4.4	\$75,000	\$66.03	\$327,666
4	athletic fields/playgrounds	acres	44.1	1.29	50.5	6.4	\$200,000	\$257.14	\$1,275,943
5	recreation centers/pools	acres	4.0	0.12	4.6	0.6	\$400,000	\$46.65	\$231,464
6	special use facilities	acres	46.3	1.35	53.0	6.7	\$200,000	\$269.97	\$1,339,595
7	support facilities/yards/buildings	acres	5.0	0.15	5.7	0.7	\$75,000	\$10.93	\$54,249
Subtotal for land impact			675.1	19.68	772.8	97.7		\$1,460.71	\$7,248,064

Facilities

1 a	picnic tables w/o shelter	table	63	1.84	72	9	\$7,609	\$13.98	\$69,347
b	picnic shelters-group use	shelter	7	0.20	8	1	\$10,694	\$2.18	\$10,829
2 a	swimming at a beach	sq feet	3	0.09	3	0	\$0	\$0.00	\$0
b	swimming at a beach	pkng sp	0	0.00	0	0	\$4,388	\$0.00	\$0
3 a	boat launch ramps	each	0	0.00	0	0	\$25,000	\$0.00	\$0
b	handcarry boat launch	each	3	0.09	3	0	\$5,000	\$0.44	\$2,170
c	fishing from a dock	pkng sp	4000	116.62	4,579	579	\$32	\$3.73	\$18,517
d	pier/dock platform	sq ft	2000	58.31	2,289	289	\$50	\$2.92	\$14,466
e	boat slips	each	4	0.12	5	1	\$10,000	\$1.17	\$5,787
4	power boat - launch	pkng sp	0	0.00	0	0	\$4,241	\$0.00	\$0
5 a	tent camping	campsite	0	0.00	0	0	\$30,935	\$0.00	\$0
b	vehicle camping	campsite	0	0.00	0	0	\$30,454	\$0.00	\$0
6 a	walking in a park-asphalt	trail mile	4.0	0.12	4.6	1	\$133,216	\$15.54	\$77,087
b	walking in a park-dirt	trail mile	7.3	0.21	8.4	1	\$83,769	\$17.83	\$88,464
7 a	day hiking on a trail-asphalt	trail mile	25.3	0.74	29.0	4	\$199,160	\$146.90	\$728,929
b	day hiking on a trail-dirt	trail mile	0.0	0.00	0.0	0	\$56,195	\$0.00	\$0
8 a	backpacking/overnight camping	trail mile	0.0	0.00	0.0	0	\$47,399	\$0.00	\$0
9 a	bicycling on a trail-asphalt	trail mile	1.0	0.03	1.1	0	\$116,588	\$3.40	\$16,866
b	bicycling on a trail-dirt	trail mile	0.0	0.00	0.0	0	\$58,294	\$0.00	\$0
10 a	bicycling on a road-marked w/shc	trail mile	29.9	0.87	34.2	4	\$116,588	\$101.63	\$504,299
b	bicycling on a road-designated or	trail mile	0.0	0.00	0.0	0	\$17,258	\$0.00	\$0
11 a	horseback riding on a trail	trail mile	0.0	0.00	0.0	0	\$5,517	\$0.00	\$0
12 a	playgrounds covered	playgrou	0	0.00	0	0	\$100,000	\$0.00	\$0
b	playground uncovered	playgrou	12	0.35	14	2	\$62,900	\$22.01	\$109,193
13	open play area-improved	acre	0.0	0.00	0.0	0	\$97,054	\$0.00	\$0
14	skateboard court	court	1	0.03	1	0	\$100,000	\$2.92	\$14,466
15	handball uncovered-outdoor	court	0	0.00	0	0	\$19,723	\$0.00	\$0
16 a	basketball covered-outdoor	court	0	0.00	0	0	\$75,000	\$0.00	\$0
b	basketball uncovered-outdoor	court	3	0.09	3	0	\$53,383	\$4.67	\$23,168
17 a	volleyball covered-outdoor	court	0	0.00	0	0	\$50,000	\$0.00	\$0
b	volleyball uncovered-outdoor	court	0	0.00	0	0	\$29,224	\$0.00	\$0
c	volleyball sand	court	1	0.03	1	0	\$5,000	\$0.15	\$723
18 a	tennis - indoor	court	4	0.12	5	1	\$150,000	\$17.49	\$86,799
b	tennis lighted-outdoor	court	0	0.00	0	0	\$95,320	\$0.00	\$0
c	tennis w/o lights-outdoor	court	8	0.23	9	1	\$52,481	\$12.24	\$60,737
19 a	football regulation	field	0	0.00	0	0	\$226,436	\$0.00	\$0
b	football practice field	field	0	0.00	0	0	\$100,000	\$0.00	\$0
20 a	soccer regulation	field-igh	2	0.06	2	0	\$583,480	\$34.02	\$168,818
	soccer regulation	field-unl	1	0.03	1	0	\$172,852	\$5.04	\$25,006
b	soccer youth	field	0	0.00	0	0	\$141,422	\$0.00	\$0
21	field hockey/lacrosse-grass	field	0	0.00	0	0	\$500,000	\$0.00	\$0
22 a	baseball 300+ adult grass lighted field		3	0.09	3	0	\$403,612	\$35.30	\$175,165

Existing Level-of-Service (ELOS) Requirements for City Facilities ¹

Population in development 1
 Population in city 2000 34,300
 Population in city 2015 39,262

Land	units	2000 ELOS		Year 2015		Facility cost /unit	Project/ per capita fee	Year 2006 funding deficit
		fclty total	standard /1000	facility rqmnt	deficit			
b	baseball 300+ adult grass/unlight field	0	0.00	0	0	\$175,000	\$0.00	\$0
c	baseball 250+ adult dirt/lighted field	0	0.00	0	0	\$250,000	\$0.00	\$0
d	baseball 250+ adult dirt/unlighted field	0	0.00	0	0	\$175,000	\$0.00	\$0
e	baseball/softball practice field	0	0.00	0	0	\$100,000	\$0.00	\$0
f	baseball/Little League-grass field	4	0.12	5	1	\$203,449	\$23.73	\$117,728
g	baseball/Little League-dirt field	0	0.00	0	0	\$105,729	\$0.00	\$0
23	parcourse stations	0	0.00	0	0	\$2,598	\$0.00	\$0
24 a	jogging track w/special surface	0.00	0.00	0.00	0	\$61,388	\$0.00	\$0
b	jogging track w/dirt surface	0.00	0.00	0.00	0	\$30,000	\$0.00	\$0
25 a	swimming at a pool-indoor	0	0.00	0	0	\$200	\$0.00	\$0
b	swimming at a pool-outdoor	0	0.00	0	0	\$200	\$0.00	\$0
26	indoor gymnasium	0	0.00	0	0	\$300	\$0.00	\$0
27	physical conditioning	0	0.00	0	0	\$250	\$0.00	\$0
28 a	racquetball (1600 each/sf ft)	0	0.00	0	0	\$320,000	\$0.00	\$0
b	handball (1200 sf)	0	0.00	0	0	\$225,000	\$0.00	\$0
29	arts/crafts/pottery room ⁺	2,000	58.31	2,289	289	\$270	\$15.74	\$78,119
30	classrooms/meeting facilities ^c	2,500	72.89	2,862	362	\$250	\$18.22	\$90,415
31	auditorium/staging/meeting facilities	5,000	145.77	5,723	723	\$400	\$58.31	\$289,329
32	kitchen facilities ^d	800	23.32	916	116	\$400	\$9.33	\$46,293
33	dining facilities ^e	0	0.00	0	0	\$200	\$0.00	\$0
34	day care/nursery ^f	8,000	233.24	9,157	1,157	\$250	\$58.31	\$289,329
35 a	community center administrations	0	0.00	0	0	\$350	\$0.00	\$0
b	community center other spaces	0	0.00	0	0	\$250	\$0.00	\$0
36 a	nature interpretive centers	0	0.00	0	0	\$150	\$0.00	\$0
b	museum/historical facilities	0	0.00	0	0	\$300	\$0.00	\$0
37 a	golf-par 3/18 hole	18	0.52	21	3	\$111,111	enterprise	enterprise
b	golf driving range	1	0.03	1	0	\$150	enterprise	enterprise
c	golf course clubhouse	3,000	87.46	3,434	434	\$300	enterprise	enterprise
d	golf course maintenance facilities	1,000	29.15	1,145	145	\$90	enterprise	enterprise
38 a	gun range - outdoor	0	0.00	0	0	\$20,000	\$0.00	\$0
b	archery range - outdoor	0	0.00	0	0	\$10,000	\$0.00	\$0
39	amphitheater	3,000	87.46	3,434	434		\$0.00	\$0
40 a	parks admin facilities	4,000	116.62	4,579	579	\$250	\$29.15	\$144,665
b	parks maintenance facilities	6,000	174.93	6,868	868	\$120	\$20.99	\$104,159
c	park shop yard	0	0.00	0	0	\$30	\$0.00	\$0
d	parks caretaker	0	0.00	0	0	\$60	\$0.00	\$0.00
e	restrooms-permanent	52	1.52	60	8	\$17,392	\$26.37	\$130,829
f	restrooms-temporary	0	0.00	0	0	\$1,000	\$0.00	\$0
Subtotal for facility impact		41,558	1,211.59	47,569	6,012		\$703.69	\$3,491,703
Total impact for land and facilities - per capita							\$2,164.40	\$10,739,767
Total impact for land and facilities - persons/household of					2.36	\$5,107.99		

Total value of existing park lands	\$50,102,500
Total value of existing park facilities	\$24,136,519
Total value of existing park lands and facilities	\$74,239,019

1 - This spreadsheet shows the cost the City of Lake Oswego would incur if it were to pay for all future land and facilities to meet future assuming that the City continued to maintain the same ratio of park land and facilities as in 2002. This spreadsheet does not include (other public & private providers).

2 - Inventory is composed of square footage at the Adult Community Center that may only be used for senior adults.

City of Lake Oswego ELOS (existing level-of-service) value 2000

	2000 supply	Value
Land acres	675.1	\$ 50,102,500
Facility units	41,558	24,136,519
Total		\$ 74,239,019
Per capita		\$ 2,164
Per household*		5,108

* Household of 2.36 persons/unit

City of Lake Oswego ELOS (existing level-of-service) need 2000-2015

	2000 supply	2015 reqmnt	2015 deficit	2015 cost
Land acres	675.1	772.8	97.7	\$ 7,248,064
Facility units	41,558	47,569	6,012	3,491,703
Total cost				\$ 10,739,767

Under the existing level-of-service (ELOS) for city-owned park land and facilities within existing city limits, the forecasted population increase will create a citywide need for an additional 97.7 acres of land and 6,012 facility units (square feet, courts, fields, etc.) by the year 2015. This assumes the city would continue to maintain the same ratio of park lands and facilities for the future population that the city has in the past.

The continuation of the city's existing level-of-service (ELOS) for the existing city limits could require a total of \$10,739,767 by the year 2015 simply to remain current with present standards - not accounting for any maintenance, operation or repair costs.

The approximate cost of sustaining the city's existing level-of-service (ELOS) standard would be equal to about \$2,164 per every new person added to the city's population or about \$5,108 for every new housing unit. See spreadsheet on pages 116-117.

Composite PLOS (proposed level-of-service) requirement 2000-2015

	2000 supply	2015 addns	2015 total	2015 cost
Land acres	2,342	16.0	2,358	\$ 2,100,000
Facility units	292,722	59,483	352,205	32,115,997
Total cost				\$ 34,215,997
Lake Oswego share				\$ 34,215,997
Lake Oswego share				100%

Under the composite agencies proposed level-of-service (PLOS) for all public and privately-owned park land and facilities within Lake Oswego, the forecasted population increase will create a city-wide proposal for an additional 16.0 acres of land and 59,483 facility units (square feet, courts, fields, etc.) by the year 2015 - were these agencies to supplement the existing inventory as described within this chapter rather than simply extending the same ratios into the future.

The realization of the composite agencies proposed level-of-service (PLOS) for the Lake Oswego urban growth boundary could require a total of \$34,215,997 by the year 2015 - not accounting for any maintenance, operation or repair costs. Based on the project proposals described in the plan chapters, Lake Oswego's share of the cost would be approximately \$34,215,997 or 100%. See spreadsheet on pages 121-123 for additional information.

Urban encroachments

However, if these proposals are not realized soon the present trend of urban developments may:

- encroach upon - or preclude the preservation and public accessibility of the more sensitive and appealing environmental sites, particularly within the developing urban growth boundary; and
- develop - or otherwise preclude the purchase and development of close-in, suitable lands for athletic fields, recreation centers, and other more land intensive recreational facilities.

Forcing city and urban growth boundary residents to:

- use crowded - or unavailable picnic areas, and swim or fish at crowded beaches;
- commute to play - at overcrowded existing facilities and/or reduce organized athletic programs for local youth;
- commute to use - available facilities in other jurisdictions and/or curtail programs to prevent severe overcrowding conditions in the facilities that do provide such services.

Such actions would be to the detriment of local residents who have paid the costs of developing and operating these facilities.

Financial implications

These levels of facility investment cannot be financed with the resources available to Lake Oswego, Lake Oswego School District, and other jurisdictions if each jurisdiction pursues an independent delivery approach or uses traditional methods of funding. These agencies will not be able to financially develop, manage, and maintain a comprehensive, independent park and recreation system using traditional financing methods in light of the needs projected.

These needs require a city-wide financing approach using a combination of shared user fees, excise taxes, joint grant applications, impact fees, and voter approved general obligation bonds if levels-of-service are to be maintained and improved upon in the face of continued Lake Oswego urban growth boundary population increases.

Proposed level-of-service (PLOS) additions - summary¹

Land	units	PLOS facility addtn	Facility cost /unit	PLOS - A funding required	LO funding share	LO - B funding required	Comments
1	resource conservan	acres		\$50,000	\$0	100%	\$0
2	resource activities	acres	10.0	\$75,000	\$750,000	100%	\$750,000
3	linear trails	acres	2.0	\$75,000	\$150,000	100%	\$150,000
4	athletic flds/plygrnds	acres		\$200,000	\$0	100%	\$0
5	rctn centers/pools	acres	2.0	\$400,000	\$800,000	100%	\$800,000
6	special use facilities	acres	2.0	\$200,000	\$400,000	100%	\$400,000
7	support facilities	acres		\$75,000	\$0	100%	\$0
Subtotal for land impact			16.0		\$2,100,000		\$2,100,000

* NOTE: The plan proposes an additional 16 acres of land be purchased to meet future demand based upon the assumption that existing city-owned land is available for use in the future as outlined in the plan. Should this land be used in a manner other than recommended, additional lands may need to be acquired to meet future demand.

Facilities

1	a picnic tables w/o shelter	table	83	\$7,609	\$631,547	100%	\$631,547
	b picnic shelters-group shelter	shelter	11	\$10,694	\$117,634	100%	\$117,634
2	a swimming beach	sq ft		\$0	\$0	100%	\$0
	b swimming beach	pkng sp		\$4,388	\$0	100%	\$0
3	a boat launch ramps	each	2	\$25,000	\$50,000	100%	\$50,000
	b boat launch-cartop	each	2	\$5,000	\$10,000	100%	\$10,000
	c floating platforms	sq ft	2000	\$32	\$64,000	100%	\$64,000
	d docks/piers	sq ft	1000	\$50	\$50,000	100%	\$50,000
	e boat moorage slips	each	4	\$10,000	\$40,000	100%	\$40,000
4	a power boat - launch	pkng sp		\$4,241	\$0	100%	\$0
5	a tent camping	cmpsite		\$30,935	\$0	100%	\$0
	b vehicle camping	cmpsite		\$30,454	\$0	100%	\$0
6	a park trail-asphalt	mile	5.6	\$133,216	\$746,010	100%	\$746,010
	b park trail-dirt	dirt	7.2	\$19,661	\$141,559	100%	\$141,559
7	a day hiking trail-asph	mile	22.3	\$164,623	\$3,662,862	100%	\$3,662,862
	streetscape	mile	1.4	\$1,000,000	\$1,400,000	100%	\$1,400,000
	gateways	each	8	\$50,000	\$400,000	100%	\$400,000
	gateway-crossroads	each	3	\$75,000	\$225,000	100%	\$225,000
	b day hiking trail	mile-asp		\$199,160	\$0	100%	\$0
		mile-dirt		\$19,661	\$0	100%	\$0
		mile-rock		\$56,195	\$0	100%	\$0
		mile-conc		\$250,000	\$0	100%	\$0
	c day hiking trailheads	pkng sp		included	\$0	100%	\$0
8	a backpacking trail	mile		\$47,399	\$0	100%	\$0
	b backpacking trailheads	pkng sp		\$4,241	\$0	100%	\$0
9	a bicycling trail-asphalt	mile	9.0	\$116,588	\$1,049,292	100%	\$1,049,292
		mile-dirt		\$5,809	\$0	100%	\$0
		mile-rock		\$58,294	\$0	100%	\$0
	c bicycle trailheads	pkng sp	5	included	\$0	100%	\$0
10	a bicycling shoulder-rr	mile	11.6	\$158,616	\$1,839,946	100%	\$1,839,946
	b bicycling in-lane	mile		\$17,258	\$0	100%	\$0
	c bicycling road-trailheads	pkng sp		included	\$0	100%	\$0
11	a equestrian trail	mile	3.4	\$5,517	\$18,757	100%	\$18,757
	b equestrian trailhead	pkng sp	1	included	\$0	100%	\$0
12	a playground-covered	plygrnd		\$100,000	\$0	100%	\$0
	b playground-uncovered	plygrnd	10	\$62,900	\$629,000	100%	\$629,000
13	a play area-improved	acre		\$97,054	\$0	100%	\$0
14	a skateboard court	court	2	\$100,000	\$200,000	100%	\$200,000
15	a handball-uncovered	court		\$19,723	\$0	100%	\$0
16	a basketball-covered	court		\$75,000	\$0	100%	\$0
	b basketball-uncovered	court		\$53,383	\$0	100%	\$0
17	a volleyball-covered	court		\$50,000	\$0	100%	\$0
	b volleyball-uncovered	court		\$29,224	\$0	100%	\$0
	c volleyball-sand	court	12	\$5,000	\$60,000	100%	\$60,000
18	a tennis-indoor	court		\$150,000	\$0	100%	\$0
	b tennis-outdoor lighted	court		\$95,320	\$0	100%	\$0
	c tennis-outdoor unlighted	court		\$52,481	\$0	100%	\$0
19	a football-regulation	field		\$226,436	\$0	100%	\$0
	b football-practice field	field		\$100,000	\$0	100%	\$0

Proposed level-of-service (PLOS) additions - summary¹

	units	PLOS facility addtn	Facility cost /unit	PLOS - A funding required	LO funding share	LO - B funding required	Comments
20 a soccer-regulation	fld-allwea grss/lts	5	\$172,852	\$0	100%	\$0	use agreement
	grss/lts	2	\$583,480	\$2,917,400	100%	\$2,917,400	
b soccer-youth	fld-allwea grss/lts	2	\$583,480	\$1,166,960	0%	\$0	
	upgrade	1	\$141,422	\$0	100%	\$0	
			\$70,711	\$70,711	100%	\$70,711	
21 lacrosse-grass	field		\$500,000	\$0	100%	\$0	
22 a ballfield-300	grss/lig fld grs/lig	0	\$403,612	\$0	100%	\$403,612	Lakeridge HS #1,#2 - lights use agreement
		2	\$403,612	\$807,224	0%	\$0	
		1	\$403,612	\$403,612	100%	\$403,612	
b ballfield-250+grss/ur	fld dirt		\$117,965	\$0	100%	\$0	
c ballfield-250+dir/lig	field	1	\$250,000	\$250,000	100%	\$250,000	
d ballfield-250+dir/unl	field		\$175,000	\$0	100%	\$0	
	upgrade	4	\$87,500	\$350,000	100%	\$350,000	
e ballfield-nonregulatic	field		\$100,000	\$0	100%	\$0	
f ballfield-200	grss field		\$203,449	\$0	100%	\$0	
g ballfield-200	dirt field		\$105,729	\$0	100%	\$0	
23 parcourse-10	stator stations		\$2,598	\$0	100%	\$0	
24 a jogging track-surfaci	miles		\$61,388	\$0	100%	\$0	
b jogging track-dirt	miles		\$30,000	\$0	100%	\$0	
25 a swimming pool-indo.	upgrade	0	\$400	\$0	100%	\$600,000	Lake Oswego HS - upgrade PCC - use agreement
	sq ft	3,000	\$400	\$1,200,000	0%	\$0	
	sq ft	6,000	\$400	\$2,400,000	100%	\$2,400,000	
b swimming pool-outd	sq ft		\$200	\$0	100%	\$0	
26 indoor gymnasium	use agrm	0	\$300	\$0	0%	\$0	Lake Oswego HS - use agreem
	sq ft	0	\$300	\$0	0%	\$0	
		10,000	\$300	\$3,000,000	100%	\$3,000,000	
27 physical conditionin	sq ft	4,000	\$250	\$1,000,000	100%	\$1,000,000	
28 rcqutbll/hndbll (1600	each/sf		\$320,000	\$0	100%	\$0	
29 arts/crafts room	sq ft	4,000	\$270	\$1,080,000	100%	\$1,080,000	
30 class/meeting room	sq ft	2,000	\$250	\$500,000	100%	\$500,000	
31 auditorium	sq ft	4,000	\$400	\$1,600,000	100%	\$1,600,000	
32 kitchen facilities	sq ft	800	\$400	\$320,000	100%	\$320,000	
33 dining facilities	sq ft		\$200	\$0	100%	\$0	
34 a day care/nursery	sq ft	1,200	\$250	\$300,000	100%	\$300,000	
b cmtly teen	sq ft	2,000	\$250	\$500,000	100%	\$500,000	
35 a cmtly cntr administra	sq ft		\$350	\$0	100%	\$0	
b cmtly cntr administra	sq ft		\$250	\$0	100%	\$0	
36 a nature center	sq ft	5,000	\$150	\$750,000	100%	\$750,000	
b museum	sq ft	7,400	\$300	\$2,220,000	100%	\$2,220,000	
37 a golf-par 3/18 hole	hole		\$111,111	\$0	100%	\$0	
b golf-clubhouse	sq ft		\$300	\$0	100%	\$0	
c golf-maintenance	sq ft		\$90	\$0	100%	\$0	
38 a gun range-outdoor	range		\$20,000	\$0	100%	\$0	
b archery range-outdo	range		\$10,000	\$0	100%	\$0	
39 amphitheater	sq ft	3,000	\$130	\$390,000	100%	\$390,000	
40 a parks admin offices	sq ft	1,200	\$250	\$300,000	100%	\$300,000	
b parks maintenance 1	sq ft	2,600	\$120	\$312,000	100%	\$312,000	
c park shop yard	sq ft		\$30	\$0	100%	\$0	
d parks caretaker	each/sf		\$60	\$0	100%	\$0	
e restrooms-permaner	fixture	64	\$17,392	\$1,113,056	100%	\$1,113,056	
f restrooms-temporar	each		\$1,000	\$0	100%	\$0	
g bulkhead restoration	each		\$25,000	\$0	100%	\$0	
h ponds restoration	each		\$25,000	\$0	100%	\$0	
Subtotal for facility impact		59,483		\$34,286,569		\$32,115,997	
Total impact for land and facilities				\$36,386,569		\$34,215,997	

1 - Shows the costs of meeting the Proposed level of service recommendations. Column "PLOS - A" lists the cost if the City were to assume full responsibility for all improvements. Column "LO - B Funding Required" outlines the costs to the City if use agreements and recommended approaches are undertaken.

