

**IMPACT FEES FOR
PUBLIC RECREATION
FACILITES**

City of Dover
New Hampshire

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Prepared for:

Department of Planning and Community Development
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Executive Summary

This report provides two alternative methods and schedules for a recreation impact fee assessment to new residential development. One method has been based on the application of minimum facility standards (number of facilities needed per 1000 residents). The other is based on the average value per capita of existing and planned investments in recreation facilities serving a horizon year population. Alternatives are illustrated for each approach that show impact fees with and without an allowance for the recoupment of City investments in raw land. However, the recommended alternatives are the schedules that exclude raw land costs from the basis of assessment.

Recommended Range of Recreation Impact Fee

Structure Type	Facility Standards Method	Investment Method
Single Family Detached	\$1,120	\$1,184
Single Family Attached (Townhouse)	\$956	\$1,068
Duplex and 3 Unit Structures	\$1,003	\$1,169
Multifamily Structures 4+ Units	\$746	\$870
Manufactured Housing	\$946	\$1,137

The alternative options computed in this report, which include an allowance for raw land values, would be about 30% to 35% higher than the fee schedules shown above. The Consultant's recommendation is that the investment method is probably preferable, as it better reflects the nature of anticipated recreation facility investment in the City which is likely to focus on redevelopment of existing recreation sites to enhance their capacity to accommodate future demands.

The fee schedules have been computed in a manner that excludes the investment in parcels that constitute solely public open space. Under NH RSA 674:21, V impact fees may be assessed for public recreation facilities, "...not including public open space."

The impact fee amounts are intended to reflect the cost of recreation facility investments that the City may reasonably be expected to incur to provide adequate facilities for all residents. The recreation impact fee assessment schedule is intended for application only to residential development. While there are probably some marginal impacts on recreation demands from non-residential development, these effects are not readily quantified, and would tend to generate minimal fees for this sector if implemented. The City may still evaluate the potential for park and open space dedications, however, from non-residential development during the site plan review process.

The models herein are not a substitute for the more detailed recreation planning process used to identify recreation opportunities and to define future needs. As these needs continue to evolve, and as more detailed plans are developed, the cost basis for the recreation impact fee may be amended accordingly. The implementation of recreation impact fees will require the Planning Board to adopt one of the alternative fee schedules and its underlying basis of assessment.

The adoption of recreation impact fees does not preclude the City from requiring, in the course of subdivision and site plan review, that open space or park land be set aside for public use, as authorized under RSA 674:36.

A. Authority and Limitations

New Hampshire RSA 674:21, V authorizes municipalities to assess impact fees to new development for the cost of "...public recreational facilities not including public open space". Impact fees may be used to recoup the costs of capital improvements made in anticipation of the demands of future growth or can be used to fund future improvements needed to support new residential development. The cost of simply upgrading or improving existing recreation facilities is not chargeable in the form of an impact fee assessment. Recreation impact fee assessments cannot be based on the cost to provide new facilities that are already needed to support the demands of the existing population. If the existing inventory of recreation facilities is insufficient, based on the application of the same standards to be applied to new development, then existing shortages of facilities should be paid for using funds other than impact fee revenue.

An important caveat of the New Hampshire authorizing legislation (RSA 674:21, V) is its prohibition on the use of impact fees to pay for *public open space* (which is undefined in the statute). Since parks and other recreation land may serve multiple functions including active recreation and sports as well as open space, it is necessary to interpret this term. In this report, it is assumed that the level of active programs, recreational sports uses, and the degree of improvements to a particular parcel, and the presence of developed facilities on the property are reasonable means to distinguish between sites comprise "recreational facilities" from those serving principally as "open space" within the meaning of RSA 674:21, V.

Municipal land which is held for the primary purposes of water and wetland conservation, natural habitat and wildlife protection, preservation of aesthetics or views may support passive recreational uses such as walking and hiking. While these spaces are supportive of some forms of recreation, such parcels primarily serve open space objectives, and are not considered to be *recreation facilities* for the purposes of the impact fee calculations in this study. While providing the valuable function of open space preservation, such lands are not significantly developed or improved with capital facilities or equipment, and the recreation uses they support tend to be subordinate to their conservation and preservation functions.

B. Inventory of Recreation Facilities

1. Existing Facility Inventory¹

The inventory of existing public recreation facilities in Dover includes those owned and operated by the School District. The inventory is based on the original information contained in the Master Plan (2000) Open Space and Recreation Chapter, updated to 2008. (See Table 1 on the next page).

Some facilities listed are privately owned and operated, and some are located on State land. Facilities available to public recreation and Little League programs are counted as part of the inventory of facilities for the purpose of estimating the inventory available to residents. The acreage attributable to public recreation, however, will be limited to those sites that are owned or operated by the City or School District.

¹ As of September 2008, the City is in the process of updating its Recreation Master Plan and related facility inventory. If the facility inventory changes through the addition or loss of facilities, the inventory in Table 1 should be amended accordingly, which would allow the impact fee computations based on the "facility standard method" to be updated.

Dover, NH Recreation Impact Fee Basis - 2008

Table 1

DOVER PUBLIC RECREATION FACILITY AND OPEN SPACE INVENTORY - 2008			FACILITIES AND IMPROVEMENTS													Other facilities supported; notes on improvements indicated by CIP
LOCATION AND TYPE	Acreage for Outdoor Recreation	Primary Recreation Use/Other Uses on Site	Gymnasium	Basketball, Volley Ball, Hardcourts (Outdoor)	Tennis Courts	Baseball, Softball, Little League Fields	Soccer, Football and Multipurpose	Running Track	Outdoor Swimming Pool	Indoor Swimming Pool	Playground Equipment/Swings	Ice Skating Arena	Pavilion/Sitting Areas	Picnicking Areas	Walking & Jogging	
ACTIVE RECREATION AREAS OR SITES																
Bellamy Park	33.0	Community park									1				1	x
Guppy Park, Including Thomson Pool	39.0	Community park with ice arena, 50 meter outdoor pool		1		1			1		1	1	1			
Henry Law Park Including Dover Indoor Pool	6.0	Community park with year-round indoor pool	1							1	1		1	1	x	
Maglaras Park	29.0	Community park				2	1									
Garrison Hill Park	55.0	Community park with observation tower												1		
Dover Middle/High School	23.0	School park with multiple facilities	1		4	3	4	1							x	
Garrison Elementary School	22.0	School park	1	2	2		2				1					
Woodman Park School	10.0	School park with multiple facilities	1	2	4	1	1	1			1					
Horne Street School	13.2	School park with multiple facilities	1	1	2	1	1				1					
Morningside Park	1.6	School park					1				1		1			
Hancock Park	0.6	Nbhd playground		1							1					
Park Street Park	1.0	Nbhd playground					1				1		1		x	
Long Hill Memorial Park	12.0	Nbhd playground		1	2		1				1			1	x	
Applevale Park	2.2	Nbhd playground		1							1					
Amanda Howard Park	0.5	Mini park									1					
Cocheco Riverwalk		Community park											1	1	x	
Fish Ladder Park	0.1	Mini park											1			
Willand Pond Park	25.0	Community Park												1	x	
Shaw's Lane	12.0					2	3									
Sullivan Drive	5.2	26 ac; est. 80% wet				2							1			
McConnell Center		Rec Dept HQs														
St. Thomas HS	30.0	Private			2											
Beckwith Little League	3.0	Private				2										
Southside Little League	2.0	Private				2										
Hilton State Park	10.0	State Park, historic site with boat ramp, picnicking, playground									1		1			
Total Recreation Acreage with Improvements or Facilities	335.4		5	9	16	16	15	2	1	1	13	1	8	6		
SUBTOTAL CITY AND PUBLIC SCHOOLS	290.4		5	9	14	12	15	2	1	1	12	1	7	6		
ALL OTHER	45.0		0	0	2	4	0	0	0	0	1	0	1	0		

Table 1 (previous page) illustrates the recreation sites and facilities comprising the principal public recreation facilities in the City. Other areas such as conservation and open space land, which may support forms of passive recreation, are not included in this inventory. The purpose of establishing this inventory is to distinguish between open space (for which impact fees may not be assessed) and public recreation facilities. Below are the draft definitions that are proposed for consideration in amending the Dover impact fee ordinance that would reflect these distinctions.

Proposed definitions relating to recreation impact fee assessment:

Public open space means a parcel of land essentially unimproved and principally intended for open space preservation, natural resource conservation, or similar uses. For the purposes of this Article, City parks that do not include “public recreation facilities” constitute public open space.

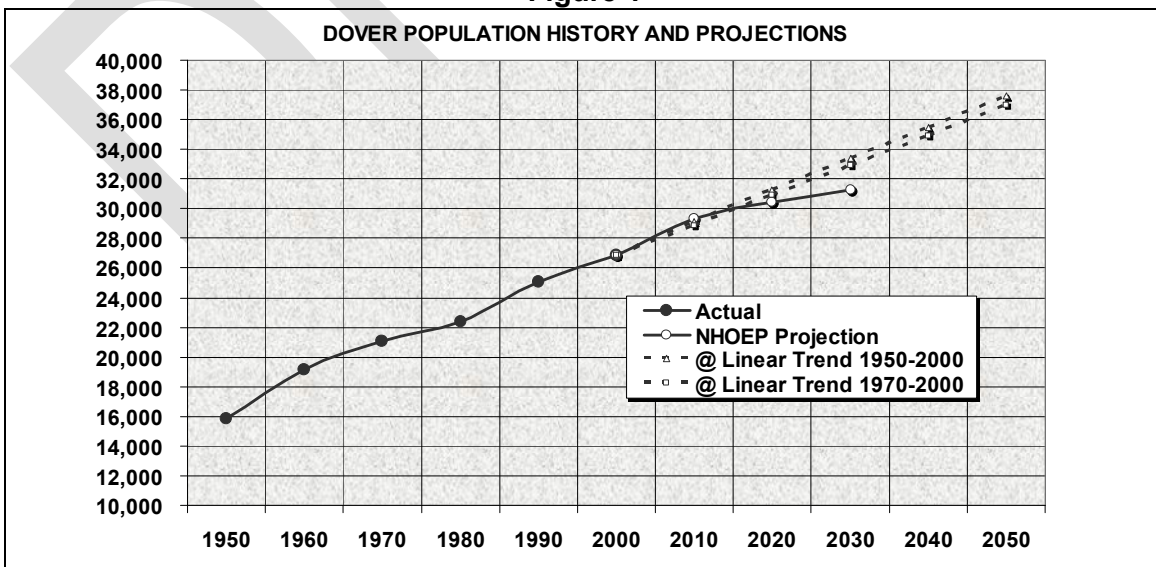
Public recreation facilities means the land and facilities owned or operated by the City of Dover, other than public open space, that are used or designed for the conduct of recreational sports or recreation programs, and which include equipment or substantial improvements to the land to provide indoor or outdoor public recreation opportunities. Public recreation facilities may also include those portions of public open space parcels that are improved with developed trail systems for uses such as hiking or cross country skiing.

C. Population and Housing Growth

1. Population Trend and Projections

Recreation impact fees are typically assessed only to new residential development. While some recreation demand may be generated by non-resident employment in the City, the planning process for recreation centers on serving the needs generated by residents. Figure 1 illustrates historic trends and alternative projections of Dover’s population. Data from the Census years 1950 through 2000 are actual counts, while mathematical projections are shown for the intervening years.

Figure 1



The most recent population projection by the NH Office of Energy and Planning (NHOEP) forecasts a 2030 population of 31,250. The projections based on long term linear trends in Dover yield a 2030 projection of about 33,000. The linear projections, when extrapolated further, suggest future population of about 35,000 by 2040 and 37,000 by 2050.

2. Buildout Estimates from the Master Plan

In its 2007 update to the Land Use chapter of the City Master Plan, the City Planning Department has estimated that, based on estimates of developable land by zoning district, a potential for an additional 3,155 residential units (under current allowable densities).

According to NHOEP the City had 13,095 total dwelling units as of 2006. The total number of occupied units (households) as of 2006 was estimated at 12,584. The NHOEP estimates of population for 2006 showed a total population of 28,703. With a subtotal of 947 in group quarters and 27,756 persons in households estimated in 2006, average household size in Dover is estimated at 2.21 in 2006 to the 2000 total would bring estimated buildout units to about 16,250. Assuming a 97% occupancy rate and constant household size at 2.21 would equal a future buildout population estimate of about 34,500. If household size continues to decline, however, say to 2.10 by the buildout year, total population could be lower at about 32,760.

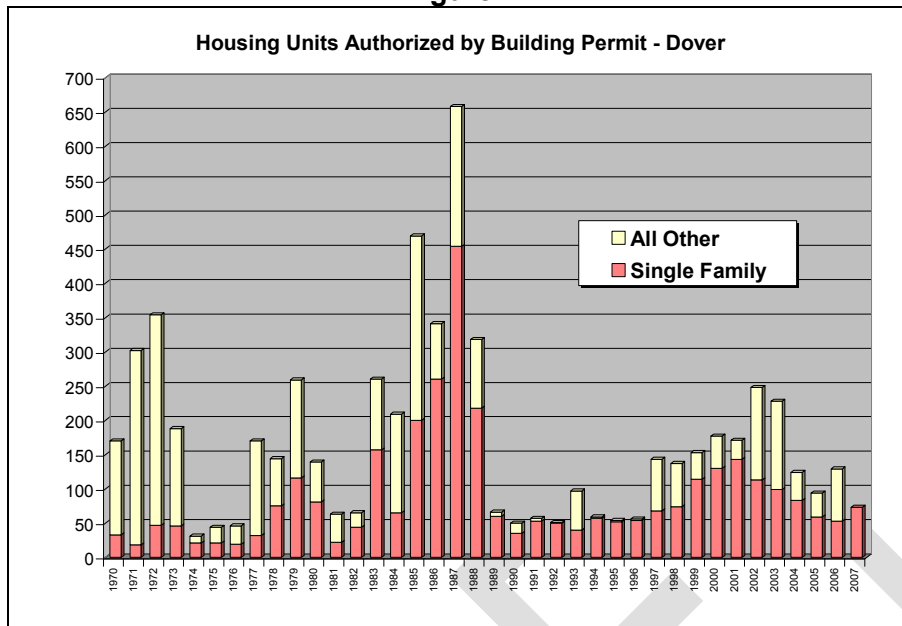
3. Housing Units Authorized by Permit

Table 2 and Figure 2 illustrate the history of residential development based on building permits issued in the City of Dover from 1970 through 2007. The long-term average for this entire period was 168 residential units per year; for the period 2000-2007 the average has been 156 units per year. If an average growth of 150 units per year were maintained, buildout (as estimated in the Master Plan’s Land Use Update) could be reached around the year 2028. The population affects of this housing growth could be higher if single family homes dominate new construction (single family homes have larger average household size).

Table 2

Total Housing Units Authorized				
Period	Single Family	2+ Family	Manufactured	All Types
1970s	428	1,191	89	1,708
1980s	1,561	941	86	2,588
1990s	597	212	48	857
2000-2007	753	458	33	1,244
Average Annual Units Authorized				
Period	Single Family	2+ Family	Manufactured	All Types
1970s	43	119	9	171
1980s	156	94	9	259
1990s	60	21	5	86
2000-2007	94	57	4	156

Figure 2



At 150 to 200 units per year, and assuming about persons per household (net growth) new residential development could generate an additional 300 to 400 persons per year, or 6,000 to 8,000 people over a 20-year period, provided that the City has the capacity to continue to absorb housing units at the historical pace.

Table 3: Long Term Residential Growth Assumption

Service Demand Factor	Base Year (2007 Est)	Future Service Population Assumed is 35,000	Change from Base Year
RESIDENTIAL SECTOR			
Total Persons	28,703	35,000	6,297
Group Quarters Population	959	1,155	196
Household Population	27,744	33,845	6,101
Households (Occupied Units)	12,554	16,117	3,563
Average Household Size	2.21	2.10	-0.11
Total Housing Units @ 4% Overall Vacancy	13,077	16,788	3,711

Public open space has been excluded from the facility cost assumptions for the impact fee calculations in this report. Therefore, the standards and cost basis of the recreation fee will exclude City investments in parcels that comprise only public open space. This approach to impact fee assessment is used in order to create a fee amount that is consistent with the limitations in RSA 674:21, V.

D. Recreation Facility Plans

The Dover Capital Improvements Program describes a number of significant investments proposed for the improvement and expansion of recreation facilities in the City. The CIP indicates that due to the difficulty of securing new sites for recreation in an urban center,

Dover's future investment in recreation facilities is likely to center primarily on maximizing the use of existing recreation sites and enhancing their ability to serve a growing population, rather than on the acquisition of new land to accommodate facility expansion.

Table 4 – Recreation Facility Plans – Dover Capital Improvement Program

Planned Facility Investments (CIP)	Fiscal Year of Implementation	Estimated Cost	Description or purpose of improvement
Maglaras Park Development	2009-2011	\$6,950,000	Increases number of recreation facilities and improves major central City park
Guppey Park Improvements	2009-2010	\$550,000	Complete reconstruction, drainage and lighting.
Jenny Thomson Pool Bathhouse Reconstruction	2010-2011	\$750,000	Remove original building (38 yrs old) and replace.
Amanda Howard Park Renovation	2009	\$200,000	Total site renovation and replacement of outdated equipment.
Jenny Thompson Pool Enclosure	2012	\$2,100,000	Cover pool for year round use - expand use from 4 mos./yr to all year.
Dover Indoor Pool Solarium	2011	\$188,000	Adds natural lighting to 1968 pool building; improve energy efficiency.
Dunaway Field Turf Replacement (*)	2012	\$400,000	Current field limited to 40 uses per yr; artif. turf would allow 250 uses per yr. Dollar amount shown is 1/2 of cost (balance from School District).
Total Planned Improvements	2009-2012	\$11,138,000	
* The cost shown on this line is 50% of the total project cost (balance to be paid by School District). Only the City share of cost has been included in the projected improvement cost to avoid any duplication with the capital basis for school impact fees.			

The comprehensive plan for Maglaras Park includes the development of a competition baseball field with grandstand seating, concession and restroom facilities, storage building, upgrades and expansions to walkways, access and parking, the creation of two new tennis courts and two new basketball courts, a BMX bike area, and construction of a new play area/tot lot.

Improvements to the Jenny Thomson pool will expand its capacity to a year-round indoor facility, thus expanding its usage potential. Both Amanda Howard Park and Guppey Park will undergo total reconstruction. Improvements to the Dunaway Field at Dover High School include the installation of artificial turf, which is estimated to result in a six-fold increase in the number of uses per year that it can support.

Table 4 summarizes the key recreation facility improvements proposed in the Dover CIP along with a brief description that reflects the rationale for the project. The City's total planned investment in recreation facilities between 2009 and 2012 is over \$11.1 million dollars. While some of this investment is for the reconstruction of existing facilities, the nature of the improvements involves the comprehensive reconstruction of some sites.

In addition to these publicly funded improvements, the City is anticipating the creation of a new downtown waterfront park and riverwalk comprising about two acres of property and riverfront amenities including benches, walkways and gardens. The project would extend the existing riverwalk at Henry Law Park along the waterfront and provide a pedestrian connection to Maglaras Park. These improvements have not been included in the capital basis of the impact fee because the City anticipates that the improvements will be funded privately as a condition of the approval of an adjacent development project.

E. Recreation Impact Fee Computations

1. Base Year vs. Future Recreation Facility Demand

The first step in the impact fee computation is to distinguish between existing needs of the current population (using the most recent NH Office of Energy and Planning estimates for 2007), and growth related needs of the resident population. This requires an identification of the quantity of recreation facilities or planned investment required for a given population. Using such standards as measures of demand, proportionate needs may be defined for a base year population, and projected for a future population.

For the purpose of estimating existing facility needs, the most recent population estimate from the New Hampshire Office of Energy & Planning has been used (2007 population – 28,703). A long-term future population, for the purpose of establishing future needs, is assumed at 35,000 persons, which would essentially represent residential buildout conditions based on the City's most recent estimates of supportable growth in housing units under existing zoning. This population is higher than the 2030 population projection for the City estimated by the NHOEP at 31,250.

2. Facility Standards Fee Basis (Method 1)

a. *Facility Standards per 1000 Persons*

The Dover Master Plan contains a range of reference facility standards for recreation facilities per 1000 persons, including those issued contained in past editions of New Hampshire Outdoors, the State's comprehensive outdoor recreation planning program. Older standards (1983) from the National Park and Recreation Association (NRPA) are also referenced. These standards were published in the NRPA's Recreation, Park, and Open Space Standards and Guidelines (1983).

As indicated by Dover's Master Plan, the NRPA now discourages the use of strict numerical facility standards in favor of a locally-driven planning process to identify community needs and acceptable levels of service for population². This approach would involve surveys of the user population and estimates of the frequency of use various types of parks and included facilities, ultimately translated to a number of acres of developed recreation space that would be required to accommodate projected usage. This level of detail is not available for Dover at the present time. Therefore, the first method of impact fee assessment relies on the application of minimum standards cited in the existing Dover Master Plan as a rough measure of demand for principal recreation facilities.

The standards referenced in the Dover Master Plan of 2000 include reference to a minimum recommended State standard of 1.0 per 1000 persons for hard courts (basketball, volleyball). The NRPA combined standard for these types of outdoor facilities is much lower at 0.4 per thousand persons. For the purpose of defining needs in this study, the Consultant has used an average of these two ratios, or 0.70 for hard courts excluding tennis.

For the purpose of impact fee assessment, the Consultant has applied standards that are reasonably consistent with the range of facility standards for major facilities as cited in the Dover Master Plan (2000) Open Space and Recreation Chapter with the exception of standards for

² See Park, Recreation, Open Space and Greenway Guidelines, National Recreation and Park Association, December 1995.

field sports. The Master Plan established independent need figures, based on analysis of actual field usage, and concluded that there was a shortage of athletic fields relative to existing demand.

The need for athletic fields as identified in 2000 is summarized in Table 5 below. Based on these need estimates, the Consultant has applied a planning ratio of 0.70 fields per 1000 persons for each of the two field categories (diamond and rectangular field types) to estimate base year and future year needs as of 2008.

Table 5 – Fields Needed as of 2000

Field Inventory and Needs Estimate - 2000 Master Plan - Recreation Chapter				
Field Type	2000 Inventory	Additional Facilities to Meet Year 2000 Demand	Total Required for Population	Number per 1000 Persons (1)
Little League	5	3	8	0.30
Baseball/Softball	7	4	11	0.41
Total "Diamond Fields"	12	7	19	0.71
Soccer, Football, Multiuse ("Rectangular Fields")	14	5	19	0.71
Total Ballfields	26	12	38	1.41

(1) City population was 26,884 at time of 2000 Master Plan estimates

b. Number of Facilities Required

Selected minimum facility ratios per 1000 persons are applied in Table 6 to the base year population of Dover (2007 estimate) and to a future population of 35,000. The difference between the number of facilities needed for the 2007 population under the selected standard and the current inventory represents the additional number required to meet current (base year) needs. If the current inventory exceeds base year population requirements, then the existing facilities have some remaining capacity to serve future population growth. If the inventory is less than the number required according to the selected standard, then there is a deficiency in the number of facilities available to existing residents.

The standards applied in Table 6 are intended to reflect low to average ratios that are consistent with the needs identified in the 2000 Master Plan, Recreation Chapter. The standards applied for "diamond fields" represent a combination of facilities for baseball, softball, and Little League. The standard for "rectangular fields" represents a combination of fields including soccer, football, lacrosse, and multipurpose and practice fields. The standard for "hard courts except tennis" includes basketball and volleyball courts. The standard for swimming pools is based on the ratio for indoor pools only.

During 2008 then City has been developing a new Recreation Master Plan. Should this plan result in an inventory of facilities or facility standards that differ from those applied in this impact fee model, then the related impact fee calculations should be recomputed using the new standards and inventory.

c. Estimated Cost per Facility

Average costs per recreation facility have been assigned in Table 6 to allocate recreation facility costs between existing residents and those in new development. Sources of these estimates are indicated below:

Diamond and Rectangular Fields: Information from the Recreation Director indicated that the development of new fields on Shaw's Lane would have a comprehensive cost of approximately \$1 million to construct 2 full size soccer fields, 2 youth softball fields, and one multipurpose field (average per field: about \$200,000). The estimated cost of a new multipurpose field at Maglaras Park is about \$235,000 according to the Park Master Plan³ cost estimates. For the purpose of impact fee assessment, an average cost of \$215,000 per field has been used.

Tennis Courts & Outdoor Basketball Courts: The cost for these hard courts, including lighting, fencing, benches and associated equipment averages about \$60,000 per court as projected in the Maglaras Park Master Plan cost estimates (see note 2).

Playgrounds: The projected cost to construct and equip a tot lot and play area within Maglaras Park has been projected at just over \$75,800 (see note 2). An average cost of \$75,000 per facility is applied in the impact fee estimates.

Gymnasiums. A unit cost for a gymnasium has not been included or allocated in the impact fee model, in order to avoid any possible duplication between the school impact fee (which includes school gyms as part of the gross floor area on which space needs and costs are computed for that fee).

Swimming Pool. The City's assessed value for the Dover Indoor Pool site is about \$2.4 million. Projected costs for the complete renovation of the larger Jenny Thomson Pool (bathhouse reconstruction, and conversion to indoor use) is projected at \$2.85 million. For the purpose of impact fee assessment, the average cost per facility has been estimated at \$2.5 million.

Allowance for Raw Land Value. In some forms of impact fee assessment a portion of the cost of underlying land is computed as part of the fee to account for the municipal investment in land prior to recreation facility construction. Based on an analysis of the average assessed value of vacant land in the City (excluding sites with buildings) we estimated an average of about \$26,000 per acre for the value of raw land.

d. Capital Cost Allocation and Cost per Unit of New Development

In Table 6 below, the facility standards discussed earlier are applied to the City's base year population (2007) and a projected future population of 35,000. Each of the recreation facilities listed in the table has been assigned an average unit cost to reflect anticipated capital costs per unit.

³ See Maglaras Park Recreation Master Plan, City of Dover, January 2006 by Kaestle Boos Associates, Inc.

Table 6 – Application of Recreation Standards to Base Year and Future Population

DOVER RECREATION FACILITY NEED ASSUMPTIONS - EXISTING AND FUTURE - UNDER MINIMUM RECOMMENDED STANDARDS											
Recreation Facilities	Facilities Needed Per 1000 Persons	Existing Local Facilities		Base Year Need Computation		Horizon Year		Cost Allocation			
		Actual Number of Units	Number Per 1000 Persons	Population 2007	Facility (Deficit) or Surplus	Units Req. for Future Pop.	Attributable to New Development	Cost Per Facility	Cost to Rectify Base Year Deficiencies	Cost to Serve New Development	
Diamond Fields - All Levels	0.70	16	0.56	20.1	(4.1)	24.5	4.4	\$215,000	\$879,802	\$947,699	
Rectangular Fields - Soccer & Multipurpose	0.70	15	0.52	20.1	(5.1)	24.5	4.4	\$215,000	\$1,094,802	\$947,699	
Outdoor Hard Courts Except Tennis	0.70	9	0.31	20.1	(11.1)	24.5	4.4	\$60,000	\$665,526	\$264,474	
Tennis Courts	0.50	16	0.56	14.4	1.6	17.5	3.1	\$60,000	n.a.	\$188,910	
Playgrounds/Equipped	0.20	13	0.45	5.7	7.3	7.0	1.3	\$75,000	n.a.	\$94,455	
Swimming Pools (Indoor Std Only)	0.05	2	0.07	1.4	0.6	1.8	0.3	\$2,500,000	n.a.	\$787,125	
Gymnasiums	0.20	5	0.17	5.7	(0.7)	7.0	1.3	n.a.	possible overlap with school fee		
Total Facility Development									\$2,640,129	\$3,230,361	
Acres of Land Supporting Active Recreation Facilities											
(1983 NRPAs: recommended range 6.25-10.5 ac. per 1000 persons)											
								Per Ac.(Raw)			
Total Acres Supporting Recreation Facilities	8.50	290.4	10.12	244.0	46.4	297.5	53.52	\$26,000	n.a.	\$1,391,637	
Total Recreation Facility Investment								Total	\$2,640,129	\$4,621,998	
										Attributable Cost Per Capita - New Development	\$734
										Attributable Cost Excluding Land Value Recoupment	\$513

In order to maintain a proportionate allocation of capita costs between existing and future residents, the same standards have been applied to the existing and future population to estimate current needs and deficiencies versus those needs attributable to new development (measured by projected population growth).

Based on this model, the cost attributable to new development is \$734 per capita including an allowance for the value of raw land, or \$513 per capita excluding land value.

e. Credit Allowances

The difference between the number of facilities required for the base year population and the number required for the future population under the same standards is the amount attributable to new development. The additional facilities already needed for the base year population are treated as an existing deficiency that needs to be rectified with funds other than impact fees.

The cost of facilities constructed to meet the needs of the existing base year population may require property tax funding of related improvements and/or debt service. New development that is assessed a recreation impact fee will also participate in paying the cost of rectifying existing base year deficiencies through their property taxes. Therefore, a credit allowance is recommended to recognize the costs incurred by the fee payer for existing facility deficiencies. While there is no statutory requirement for such credits under NH RSA 674:21, V the credit offset is suggested to avoid concerns that a property will pay both for existing base year deficiencies in the number of facilities, plus the cost its impact as new development.

Under the facility standards applied above there is a need for additional investment in diamond and rectangular fields, and outdoor hard courts that is attributable to the needs of the existing population. The estimated cost to rectify base year deficiencies in the number of recreation facilities in Dover as \$2.64 million. This is equivalent to \$0.91 per thousand valuation based on the City's assessed valuation. That amount is applied to average assessed values per dwelling unit in Table 7 below to compute a credit allowance.

Table 7
Computation of Credit Allowance for Existing Recreation Needs

Capital Value Assigned to Existing Deficiencies	\$2,640,129
2008 Assessed Valuation	\$2,885,983,700
Investment Required Per 1000 Valuation	\$0.91

Credit Allowances Based on Avg Valuation Per Unit

Type of Structure	Average Assessed Valuation	Credit Allowance
Single Family Detached	\$ 290,000	(\$265)
Single Family Attached (Townhouse)	\$ 177,000	(\$162)
Duplex and 3 Unit Structures	\$ 126,000	(\$115)
Multifamily Structures 4+ Units	\$ 93,000	(\$85)
Manufactured Housing	\$ 76,000	(\$70)

f. Impact Fee per Dwelling Unit

To compute the recreation impact fee, the facility cost per capita is multiplied by the number of persons per household in each type of dwelling unit. The credit allowance per unit is then deducted to arrive at the net impact fee to be assessed. Table 8 below shows two versions of the impact fee. One version includes an allowance (recoupment) of original costs for raw land; the second option is based on facility construction only.

Table 8

DOVER RECREATION FACILITY IMPACT FEE - FACILITY STANDARD METHOD						
Type of Structure	Average Household Size (2000 Census - Dover)	Capital Cost Including Land Per Dwelling Unit	Capital Cost Excluding Land Per Dwelling Unit	Less Credit Allowance	Recreation Impact Fee w/Land	Recreation Impact Fee Excluding Land (Recommended)
Single Family Detached	2.70	\$1,982	\$1,385	(\$265)	\$1,717	\$1,120
Single Family Attached (Townhouse)	2.18	\$1,600	\$1,118	(\$162)	\$1,438	\$956
Duplex and 3 Unit Structures	2.18	\$1,600	\$1,118	(\$115)	\$1,485	\$1,003
Multifamily Structures 4+ Units	1.62	\$1,189	\$831	(\$85)	\$1,104	\$746
Manufactured Housing	1.98	\$1,453	\$1,016	(\$70)	\$1,383	\$946

The recommended fee under this model is the fee excluding land value. Under this approach, a single family home would pay a recreation impact fee of \$1,120 per unit. Recoupment of the value of original land acquisition may overstate actual costs if much of the land was originally donated for public use, and recoupment of costs incurred many decades ago may not be appropriate as part of the impact fee assessment.

3. Investment Approach (Method 2)

A second method of impact fee assessment is described in this section. This method employs an approach similar to methods applied to compute utility system development charges or investment fees, based on historic and planned facility investments. Essentially, the fee is based on a blended estimate of the replacement cost of existing facilities, less accumulated depreciation, plus the projected costs for future facility development. The total investment value of City recreation facilities is then apportioned across the entire future service population (projected at 35,000 persons as a horizon year, or buildout, population) to arrive at a per capita cost.

a. Estimated Value of Existing Recreation Facilities

The Consultant obtained from the City Finance Department a listing of assets assigned to the Recreation Department. The list includes information on the type of asset, its original acquisition year and cost, and accumulated depreciation. For the purpose of this study, we excluded vehicles, capitalized interest, assets over 40 years old (Butterfield Gym), and other expenditures that did not appear to contribute to facility improvement. The selected asset values comprise athletic fields, buildings and office equipment, tennis and basketball courts, playgrounds and related structures, fencing, paved surfaces, swimming pools and related equipment. Land values were not included in this inventory.

An estimated replacement cost for each asset was estimated by applying the Engineering News Record (ENR) cost index for August 2008 in relation to the ENR index for year of the asset acquisition. The total for selected recreation facilities less the accumulated depreciation assigned by the City to the same assets was computed as a representation of the current value of existing recreation facility assets. The net figure derived by this method was \$11.6 million (or about \$404 per capita based on the 2007 population). A separate allowance for raw land value, based on the figure used in the facility standard method presented earlier, at \$7.55 million for City and School recreation facility sites. If the allowance for land value is included, the current asset value is estimated at \$667 per capita.

The next step was to add the future recreation facility investments planned by the City (based on the Capital Improvements Program). The non-vehicle investments associated with facility improvements are listed below in Table 9.

Table 9

Planned Facility Investments (CIP)	Fiscal Year of Implementation	Estimated Cost	Description or purpose of improvement
Maglaras Park Development	2009-2011	\$6,950,000	Increases number of recreation facilities and improves major central City park
Guppey Park Improvements	2009-2010	\$550,000	Complete reconstruction, drainage and lighting.
Jenny Thomson Pool Bathhouse Reconstruction	2010-2011	\$750,000	Remove original building (38 yrs old) and replace.
Amanda Howard Park Renovation	2009	\$200,000	Total site renovation and replacement of outdated equipment.
Jenny Thompson Pool Enclosure	2012	\$2,100,000	Cover pool for year round use - expand use from 4 mos./yr to all year.
Dover Indoor Pool Solarium	2011	\$188,000	Adds natural lighting to 1968 pool building; improve energy efficiency.
Dunaway Field Turf Replacement *	2012	\$400,000	Current field limited to 40 uses per yr; artif. turf would allow 250 uses per yr. Dollar amount shown is 1/2 of cost (balance from School District).
Total Planned Improvements	2009-2012	\$11,138,000	
* The cost shown on this line is 50% of the total project cost (balance to be paid by School District). Only the City share of cost has been			
Existing Facilities - Estimated Value			
Estimated Replacement Cost - Recreation Facility Improvements		\$14,700,000	Original acquisition value of selected facilities based on City records, indexed to current replacement cost using ENR Index
Less Accumulated Depreciation		(\$3,100,000)	Accumulated depreciation for same facilities based on City records, through FY 2007
Value Attributed to Existing Facilities		\$11,600,000	Replacement cost less accum. depreciation
	Acres (City/School Facilities Only)		
Estimated Value Raw Land - 222 Acres - (City property, not including schools)	290.4	\$7,550,400	Estimated at raw land value of \$26,000 per acre (unimproved). Estimated value per acre for "vacant land" with no buildings per analysis of Dover assessment data is \$26,700 per acre.
Total Value - Existing and Planned Improvements Plus Raw Land Value		\$30,288,400	
Future Population Served by Total Facility Investment		35,000	
Average Value of Recreation Investment Per Capita		\$865	
Total Facility Existing and Planned Improvements - Excluding Raw Land		\$22,738,000	
Future Population Served by Total Facility Investment		\$35,000	
Average Recreation Facility Investment Per Capita		\$650	

The addition of these improvements (totaling just over \$11.3 million) to the existing asset base totals \$22.7 million excluding land and \$30.3 million if the land value allowance is included. These total investment values are then divided by the horizon year population (35,000) to estimate the value per capita of existing and projected recreation facility investment. The resulting averages are \$865 per capita including land and \$650 per capita excluding land. (See Table 9.)

b. Credit Allowance

The credit calculation is based on the increase in recreation investment per capita, applied to the base year (2007) population. Based on this method, the increased facility investment needed for the existing population ranges from \$198 per capita (excluding land) or \$246 per capita (with land) to raise the level of recreation facility investment to desired standards (i.e. to implement the CIP recommendations for recreation, which includes new facilities as well as upgrades of benefit to both existing and new development).

The total amount credited is the amount needed to bring investment per capita for the existing population up to the increased investment standard created by the implementation of the CIP. The increase in per capita investment needed x the 2007 City population = \$5.68 million (no land cost) to \$7.05 million (with land cost allowance). These amounts are then computed per thousand assessed valuation as a credit value. The cost per thousand valuation is multiplied by the average assessed value per dwelling unit assigned earlier in this report to residential construction to derive a credit allowance per residential unit.

c. Impact Fee per Dwelling Unit – Facility Investment Method

The impact fee is computed based on the horizon year investment per capita, times average household size, less the credit allowance for facility upgrades related to the needs of the existing population.

Table 10 summarizes the impact fee computations per dwelling unit. The recommended fee basis is the version excluding raw land values, as it appears to be a better reflection of the nature and extent of capital facility investment by the City which will center more on facility redevelopment than on land acquisition and development of new sites.

Table 10

CAPITAL INVESTMENT PER HOUSING UNIT AT FUTURE SERVICE POPULATION			
Type of Structure	Average Household Size (2000 Census - Dover)	Total Recreation Facility and Land Investment Per Dwelling Unit	Total Recreation Facility Investment Per Dwelling Unit Excluding Land
Single Family Detached	2.70	\$2,336	\$1,755
Single Family Attached (Townhouse)	2.18	\$1,886	\$1,417
Duplex and 3 Unit Structures	2.18	\$1,886	\$1,417
Multifamily Structures 4+ Units	1.62	\$1,401	\$1,053
Manufactured Housing	1.98	\$1,713	\$1,287
CREDIT ALLOWANCE - EXISTING FACILITY INVESTMENT NEED			
		Land Value Included	Land Value Excluded
Total Investment Per Capita with Planned Improvements		\$865	\$650
Less Existing Facility Value Per Capita		(\$667)	(\$404)
Amount Needed Per Capita for Base Year Needs		\$198	\$246
Facility Investment Needed - Base Year		\$5,683,194	\$7,060,938
2008 City Assessed Valuation		\$2,885,983,700	\$2,885,983,700
Credit Allowance Per \$1000 Valuation		(\$1.97)	(\$2.45)

CREDIT ALLOWANCES PER DWELLING UNIT			
Type of Structure	Average Assessed Valuation	Credit Allowance A	Credit Allowance B
Single Family Detached	\$290,000	(\$571)	(\$711)
Single Family Attached (Townhouse)	\$177,000	(\$349)	(\$434)
Duplex and 3 Unit Structures	\$126,000	(\$248)	(\$309)
Multifamily Structures 4+ Units	\$93,000	(\$183)	(\$228)
Manufactured Housing	\$76,000	(\$150)	(\$186)

Net Impact Fee Assessment	Net Impact Fee Including Allowance for Land	Net Impact Fee Excluding Allowance for Land (Recommended)
Single Family Detached	\$1,765	\$1,184
Single Family Attached	\$1,537	\$1,068
Duplex and 3 Unit Structures	\$1,638	\$1,169
Multifamily Structures 4+	\$1,218	\$870
Manufactured Housing	\$1,563	\$1,137

F. Comparison of Alternative Fee Schedules

Each of these approaches represents a proportionate impact assessment on various types of residential structures. It is the intent of the impact fee assessment to reflect an average capital cost per unit of new development this is reasonably representative of the City's likely investment in public recreation facilities. A comparison of the alternatives created by the two methods applied above is illustrated in Table 11 below. The recommended alternatives are shown in columns C and D. These two approaches exclude the recoupment of raw land value as part of the basis for the impact fee. In the opinion of the Consultant, option D best represents the nature of the City's future investment in capital facilities for recreation, which are likely to focus on maximizing the use of existing recreation sites through redevelopment vs. the development of new recreation sites and facilities. The option D approach also reflects the projects included in the City's capital improvements program for public recreation.

Table 11

SUMMARY OF RECREATION FEE MODELS - IMPACT FEES PER DWELLING UNIT				
Structure Type	Including Recoupment of Land Acquisition Value		Excluding Land Value (Recommended)	
	A	B	C	D
	Facility Standards Method	Investment Method	Facility Standards Method	Investment Method
Single Family Detached	\$1,717	\$1,765	\$1,120	\$1,184
Single Family Attached (Townhouse)	\$1,438	\$1,537	\$956	\$1,068
Duplex and 3 Unit Structures	\$1,485	\$1,638	\$1,003	\$1,169
Multifamily Structures 4+ Units	\$1,104	\$1,218	\$746	\$870
Manufactured Housing	\$1,383	\$1,563	\$946	\$1,137

An impact fee assessment should reflect, and not dictate, the desired planning and investment standards for City recreation facilities. Neither of the impact fee models used above are intended as a substitute for independent recreation facility planning. The needs of the City are likely to change with time. If planning standards for the quantity of facilities, or long-term CIP plans for recreation facility investment change, then the assumptions of the impact fee models should be modified to amend or update the impact fee assessment.

G. Other Considerations

With or without impact fees for public recreation facilities, New Hampshire communities may still use their subdivision regulations as a tool to set aside appropriate areas for public open space or park land. New Hampshire RSA 674:36 provides that local subdivision regulations may require plats to show adequate open spaces, as well as parks suitably located for playgrounds or other recreational purposes, and may require that such parks be of reasonable size for neighborhood playgrounds or other recreational uses. These provisions allow for dedication of such spaces to public recreational use. The regulations may be used to increase public recreation space, and not merely set asides of land for exclusive use by the property owners within a particular development.

The City subdivision regulations might therefore be used to preserve or enable continuity of open space or recreation trail corridors, and to set aside appropriate future sites for public parks and recreation. If the adopted impact fee basis *includes* the cost of raw land acquisition, then the assessed property should qualify for a full or partial waiver of the fee. But if the fee basis *excludes* the cost of raw land acquisition, the fee will not overlap with recreation land set-asides required by the City as a condition of subdivision or site plan approval.