CITY OF PORTSMOUTH

COMPREHENSIVE RECREATION NEEDS STUDY

FINAL REPORT

May 17, 2010

Prepared By:

tat | the architectural team

WATER TECHNOLOGY, INC.
AQUATIC PLANNERS, DESIGNERS & ENGINEERS

BALLARD*KING & ASSOCIATES LTD

BARKER RINKER SEACAT ARCHITECTURE

CWDG Copley Wolff Design Group
Landscape Architects & Planners

Comprehensive Recreation Needs Study Final Report

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Executive Summary

In April of 2009 the City of Portsmouth Recreation Board, at the request of the City Council, completed the process of selecting a consultant team to conduct a Comprehensive Recreation Needs Study for the City of Portsmouth recreation fields and facilities. In early May of 2009 a consultant team lead by The Architectural Team, Inc. and including Barker Rinker Seacat Architecture, the Copley Wolff Design Group, Ballard*King & Associates and Water Technology, Inc. began the research, communication and community engagement required to meet the goals and objectives of the City Council, Recreation Board, and residents of Portsmouth. Work on the project included an overview of the existing recreation field and facility conditions, uses, programming, maintenance, operation and supervision, interaction with the community in a series of community meetings, stakeholder interviews and focus group sessions and assessment of the city's needs, including recommendations for next steps. The following report is the final step in completing the Comprehensive Recreation Needs Study. The report summarizes the findings of the Consultant Team, documents the data collected, and presents the assessment of need and recommended next steps for the City of Portsmouth to meet that need.

As indicated by the name of the study, at the most basic level, this is a report on the assessed need for recreation fields and facilities within the City of Portsmouth. Based on current usage, local and national trends, a reasonable assumption of steady growth in recreation program participation levels, and extensive public input, it is clear that there is a great need, and expectation, for continued financial and programmatic support of all types of youth and adult, passive, organized and competitive recreation. The community's expectation of continued investment in recreation is based in part on the current high level of recreation participation as well as the City's role as the regional hub for recreation, business, culture, and tourism. The City of Portsmouth supports a community significantly larger than just those residents living within the boundaries of the City, and represents a regional center for recreation and entertainment for all ages and groups.

With this responsibility for providing extensive recreation fields and facilities comes a significant burden of cost. The City of Portsmouth has annually struggled with determining the best method for prioritizing recreation costs against the cost for public safety, education, public works, and similar required services and municipal obligations. With tightening budgets in recent years, the challenge of funding recreational services, maintenance and operations costs, and funding long term capital improvements has become greater and greater. However, in numerous public input sessions, web comments, letters to the editor and stakeholder interviews it has been expressed to the Consultant Team that recreation, healthy lifestyles, community wellness and comprehensive recreational programming are high priorities, and one of the things that make Portsmouth a livable and socially connected city. Therefore, it is incumbent upon the City leadership to determine the best method of continuing to invest in recreation, through the use of limited municipal dollars, as well as through creative public / private partnerships, engagement with local and regional providers, and intelligent investment in sustainable facilities and materials to reduce the long term subsidy per recreational user while still maintaining the quality of recreational experience.

The City of Portsmouth has demonstrated success in developing creative partnerships, as evidenced by the cooperation, coordination and integration of the Recreation Department and the School Athletics program and through the relationship at Spinnaker Point. Similar cooperative efforts must be explored to create further efficiencies in order to ensure the viability of its current assets into the future.

Two of the main challenges facing the City of Portsmouth, in its effort to maintain current programming, are the nature of the existing facilities and the limited availability of developable land within the city limits. The existing facilities are buildings which were not designed for recreational use; they are all past their intended usable life span and absent major renovation or reconstruction, will not be able to meet the growing need for safe and engaging youth and adult indoor recreation space. Compounding this issue is the limited stock of developable land for a consolidated, purpose built youth and adult recreation and aquatics center. Similarly, the limited supply of athletic fields is a direct result of the limited supply of flat, dry land for redevelopment into a multi-field sports complex equivalent to those competition complexes available in other regional cities and towns. While there are a few opportunities for single component recreation facilities, or one time field development, the only method of reducing the annual expenditure on recreation, without a significant reduction in programming, is consolidation for efficiency.

The City of Portsmouth currently operates four different indoor facilities, all of which are programmatically outdated, in need of significant capital improvement, suffering from deferred maintenance of systems, and require individuals to travel from one facility to another to participate in all of the types of indoor recreational programming expected by contemporary standards. Even the Spinnaker Point facility, which is in the best physical condition and most purpose built, is limited in its capacity to serve the community based on the restriction to adult usage only. This report recommends, in the long term, that all of these facilities should be consolidated in a modestly sized, comprehensive recreation and aquatic facility which meets current codes, standards and family needs for comprehensive, multi-generational recreation, fitness, play and entertainment. While it seems difficult to discuss the construction of a new facility at a time when maintaining existing facilities is a challenge, the overwhelming data shows that an appropriately programmed, sized and operated facility can be sustained with far less subsidy per user, on a local and regional basis, than is currently being spent to maintain and operate the current facilities.

Similarly, while the capital investment is not insignificant, the operational and community benefits to acquiring the land necessary for development of a multi-use field complex are sustainable. All of the large parcels reviewed as part of this project include recreational opportunities as well as conservation and adaptive reuse opportunities which would benefit the entire community in both the short and long term. And while it may take some time to complete the development of a new field complex, it will take much less time, and investment, to convert current sod fields to synthetic turf, which could affectively add 50% more usage time to the currently available supply of fields, with a reduced costs for maintenance and upkeep on an annual basis.

In summary, there is a substantial demand for all types of recreational activities in the City of Portsmouth, and all types of recreation require short and long term investment, either directly or through creative partnering and enhanced community engagement. The following report represents the first step in establishing reasonable goals for redevelopment of existing assets, planning for investment in time and money toward the creation of replacement assets, and development of a long term strategy for providing a high level of recreational experience for all of the residents of the city with an acceptable subsidy level, in an ever challenging economic climate.

The Consultant Team has enjoyed the dialogue with the City of Portsmouth staff and residents, and looks forward to a vigorous discussion of the information provided in this report.

Scope of Consultant Services

The following section of the report is intended to provide a basic overview of the scope of services being provided by the Consultant Team. It is important that a community understand the intended goals, objectives and tasks undertaken by a consultant, as well as those tasks which are not included in the scope, in order to establish appropriate expectations relative to outcomes and final products.

Following is a summary of the consultant tasks provided as part of the Contract for Services between the City of Portsmouth and the Consultant Team. While every individual task is not necessarily noted, and some tasks evolved based on current events and community input, the general scope of the project remained consistent with the following summary:

Existing Conditions Scope of Services

- Existing Documentation Transfer - City of Portsmouth to provide, to the Consultant Team, all available information on programming at the existing facilities.
- Existing Facility Program & Physical Needs Assessment. Walk through of all existing facilities, including three (3) Recreation Centers, one (1) indoor pool, one (1) outdoor pool, and eleven (11) recreation field sites, looking at existing program usage and space allocations.
- Staffing & Program Review - Review of existing staffing levels, program schedules, enrollment, participation, and service inventory.
- Conduct first round of focus group sessions, stakeholder interviews, staff & management interviews and meetings. Dialogues focused on existing conditions, current perceptions, expectations and behaviors.

Public Input Scope of Services

- Plan, Organize & Coordinate with the City of Portsmouth a series of Community Meetings, stakeholder interviews, and focus group sessions.
- Community Meeting #1: Open Dialogue about City of Portsmouth Recreation Facilities.
- Community Meeting #2: Outdoor Facilities Dialogue. Discuss fields, outdoor spaces & programs.
- Community Meeting #3: Indoor Facilities Dialogue. Discuss youth, adult &aquatic programming goals, priorities and opportunities.
- Stakeholder interviews, and focus group sessions. Focus of stakeholder interviews and focus group sessions will be determined based on information received in the first Community Meeting and staff review sessions.
- Public Input Process De-Scoping Session. Discussion of lessons learned, information gathered, general assessment of community meetings, stakeholder interviews, focus group sessions & general community input.

Needs Assessment / Recommendations

- Needs Assessment / Recommendations Development. Collate, evaluate, and analyze all information gathered during previous phases. Provide assessment and recommendations of physical needs for fields and facilities. Assessment will include recommended next steps including first and second priority action items for both areas.
- Presentation of Needs Assessment Report.

Next Steps / Conceptual Design Phase Proposal

- Assessment of Services by Design Team, Discussion of Next Steps, Review of Potential Scope of Services to allow for Proposal for Phase II Scope of Work.

Following are some additional notes regarding individual components of the Consultant Scope which are relevant to understanding the process and intended goals:

- The focus of the consultant scope, and this report, is specifically related to fields and facilities. This is not to suggest that passive recreation is not important, or a high priority for the City of Portsmouth and the community. The Consultant Team received extensive input relative to passive recreation needs as part of the community meetings and web comments submitted throughout the project. Further, given the tremendous opportunities for biking, hiking, paddling, and similar activities in the City of Portsmouth and Seacoast region, it would be inappropriate not to focus attention and some resources toward assuring continued support of these types of recreation. To this end, the Consultant Team coordinated their research and efforts with the Public Undeveloped Lands Assessment (PULA) project, and made every effort to provide connections and enhanced opportunities for passive recreation as part of their investigations and recommendations.

- The Existing Conditions scope of service was specifically reduced, by the City of Portsmouth, based on a determination that the resources of the Consultant Team were better spent on future opportunities and recommendations, rather than existing facility studies, which are known to be in poor condition and not purpose-built. The scope of the Consultant Team did not include any engineering studies or estimating relative to capital improvements or maintenance requirements.

- As part of the Fields portion of the study, it was ultimately determined that "Yield Studies" would be provided as part of the process of assessing opportunities represented by different pieces of property, relative to development of new recreation fields. While not originally envisioned as part of the scope of this project, it was determined that this was the best method of illustrating the opportunities for multi-use, multi-field complexes and the limited capacity for field development on City of Portsmouth owned land. It is critical to note that these "Yield Studies" are very preliminary, and are not engineered layouts, designs, or construction documents. The intent is to demonstrate relative sizes and orientation of fields on a piece of property. Grading, drainage, environmental conditions, hazardous materials, access, utility provisions and similar details were not completed as part of the yield studies included with this report. All of these issues, as well as zoning and permitting analysis and accurate site surveys will be required as part of the development planning phase of any proposed new field complex.

- The City of Portsmouth determined, on behalf of the Consultant Team, which parcels of land would be examined for development of fields and facilities. Public and private parcels were reviewed by the City of Portsmouth staff for cost, acquisition, accessibility and similar issues. The Consultant Team did not participate in any conversations with private property owners relative to land acquisition or reuse for recreation fields or facilities purposes.

- One of the challenges in the City of Portsmouth is the limited opportunity for large scale outdoor athletic complex development with multiple fields and a comprehensive indoor recreation and aquatic facility due to the scarcity of developable land. The Consultant Team's scope involved determination of the need for recreation services and recommendations of quantities and sizes of facilities to meet both the current and future needs expressed by the community. The scope does not include design of specific fields and facilities on specific parcels of land which are able to contain those opportunities, as well as the required parking, access and accessory needs. The next stage in the process of recreation field and facility development will necessarily include selection and acquisition of appropriately sized and located parcels for development of these components.

- While the Consultant Team has recommended that the City of Portsmouth investigate both Public and Private partnerships as an opportunity to leverage the community's resources, the Consultant Team scope does not include initiation, generation or discussion with any entity, business or organization related to potential partnership with the City of Portsmouth on recreation field or facility planning or development. The City of Portsmouth is responsible for determining the partnership types and opportunities most appropriate for the community and the residents.

- Given the limited scope and duration of the project, it was not possible to address all of the types of recreation needs expressed through the community input process. A significant number of comments and suggests were made relative to outdoor basketball courts, tennis courts and the need for a tennis court complex for league play, the need for squash courts, the need for additional outdoor and indoor children's playgrounds and activities, the need for outdoor marching band practice space, and similar recreation related topics. To the extent that this report is intended to address as many types of recreation activities as possible, it is necessary, in the interest of prioritization, that some aspects of this dialogue will have to be conducted as part of a subsequent phase of recreation facility planning and development.

- The Consultant Team was informed about the recent dialogue in the community regarding expansion of the existing Middle School and the potential for that expansion to affect Alumni Field. The Consultant Team was further informed that the involved parties were committed to creating a fully operational replacement for Alumni Field prior to construction of the Middle School addition commencing, and therefore there would be no net loss of usable fields as a result of the project. Finally, the Consultant Team was also informed that the conversion of the High School football field to synthetic turf would be part of the Middle School project, and should be anticipated as part of the study.

- Following is a list of Recreational and Athletic Facilities and Fields, provided by the City of Portsmouth, to the Consultant Team, as part of the Professional Services Agreement, representing the scope of existing condition and assessment services required.

Portsmouth High School Gym
Sherburne School Gym
Dondero School Gym
Little Harbour Gym
Connie Bean Recreation Center
Spinnaker Point Recreation Center*
Lafeyette School Ball Field
Pannaway Field
Alumni Ball Field
Plains Fall Field
Leary Ball Field
Portsmouth High School Athletic Fields
Sherburne School Field
Little Harbor Field
New Franklin Elementary Gym
Wentworth School Gym
Portsmouth Middle School Gym
Portsmouth Indoor Pool
Greenleaf Recreation Center
South Playground Tennis Courts
Maple Haven Field
Clough Field
Pease Ball Field
Hislop Park Ball Field
Central Little League Ball Field
New Franklin Elementary Field and Courts
Dondero School Field

Fields Scope

The first major component of the Comprehensive Recreation Needs Study was related to outdoor Organized Recreation Field Uses, including youth and adult casual and competitive league football, baseball, little league, softball, soccer, lacrosse, and similar team organized sports programs. In addition, some assessment of hard court outdoor programming was completed, including basketball and tennis courts. The scope of this portion of the study included:

1) A limited review of the existing conditions of the existing outdoor fields.

2) A process of public input, including:
   Public Community Input Session on June 16, 2009
   Public Community Input Session on December 16, 2009
   Stakeholder Interviews (June 2009, September 2009)
   Web comments to the City website

3) Development of a needs assessment

4) Recommendations for improvements to existing fields and development of a new multi-field complex at one or more of a number of studied sites.

Fields – Existing Conditions / Needs Assessment

The Consultant Team was able to quickly establish four pieces of information at the outset of the project: 1) the majority of existing sod fields throughout the City of Portsmouth are overused, in need of rest, drainage work, and capital improvements in the form of fencing, restrooms, parking and bleachers, 2) many of the City's fields could greatly benefit from conversion to synthetic turf and perhaps one or two could benefit from the addition of artificial lighting, 3) there is a great need for additional field stock, preferably at a single multi-field complex, and 4) that the limited availability of large sized parcels of land flat and dry enough for redevelopment into recreation fields was going to be the significant challenge to expanding the City of Portsmouth's field supply.

Documentation and anecdotal evidence indicating the shortage of competition and practice fields was provided immediately by the City of Portsmouth Recreation Department in the form of field usage studies and maintenance records, as well as during the first Public Input Meeting and early web comments where people spoke and wrote of the need to travel to surrounding communities for competitions and practice fields. Similarly, the site visits provided immediate evidence of overuse of the fields in the form of dead grass, mud strips and "burnt" areas at the middle of fields and ponding of water at depressed areas where overuse has beaten down the sod and underlying substrate.

The staff of the Recreation Department, the School Maintenance Staffs, the Little Leagues and all of the community members engaged in maintaining the fields have made a valiant effort at keeping the fields in playable condition. However, at this time there are too few fields and too many users to allow the fields to rest between uses, after rains and in the early spring and late fall seasons when they are most susceptible to damage (which inevitably results in poorer growth and sod strength throughout the year, and ultimately to greater damage during regular season usage). Further, numerous leagues and groups are currently limiting their league size due to lack of access to fields even under these heavy usage schedules.

Following is a summary of the Existing Condition and Needs Assessment Data Collected:

Field Demand Summary

- Peak Demand Season: Spring and Fall
- Peak Demand Days & Times: Weekday Late Afternoons & Early Evenings. Saturdays.
- Only 4 of the 9 game quality diamonds are lit and only 4 can accommodate Adult Leagues.
- Only 7 of the 17 total fields are lit. 5 of the lit fields are at Portsmouth High School.
- Many organizations have to limit the size of their program due to the lack of fields.
- Many organizations are heavily utilizing fields in Newington and Greenland.
- Most fields are serving as Multi-use, being heavily overused, and have no recovery time.
- Portsmouth Middle and Elementary schools are under served by the existing fields.
- Tournament play is limited due to the lack of field time and the lack of a multi-field complex.
- Amenities are limited:
    - Lack of restrooms at most fields
    - A lack of parking at fields
    - Safety issues with fields being too close to major roads

Current City of Portsmouth Fields

Field	Existing Lights	Artificial Turf	Maintenance / Upgrade Required
Leary	Y	N	Y
Alumni	Y	N	To Be Relocated
Central	N	N	Y
Hislop	N	N	Y
Plains	N	N	Y
Maple Haven	N	N	Y
Clough	N	N	Y
Lafayette	N	N	Y
Sherburne	N	N	Y
Pease	Y	N	N
Dondero	N	N	Y
New Franklin	N	N	Y
PHS Football	Y	N*	*To Be Turfed
PHS Field Hockey	Y	N	Y
PHS Soccer	Y	N	Y
PHS Softball	Y	N	Y
PHS Baseball	Y	N	N

Information gathered in part from the 2007 City of Portsmouth Ball field Condition/Use Report

The following chart compares the number and type of outdoor field spaces in Portsmouth and the nearby communities of Dover and Rochester.

Comparative Field Quantity Data for Seacoast Communities

Field Type	Portsmouth	Dover	Rochester
Football	1	2	2
Soccer	1	2	8
Lacrosse	0	2	4
Field Hockey	1	1	4
Softball (H.S. / Adult)	2	3	5
Baseball (H.S. / Adult)	2	2	8
Softball (Youth)	2	5	6
Baseball (Youth)	3	5	7
Practice Fields / Multi-use	5	3	0
Total	**17**	**25**	**44***

* Includes 21 fields @ Roger Allen Park, donated land developed by the citizens of Rochester.

Portsmouth Athletic User Group Summary

On the following page, a chart is provided which was developed using the responses to a survey prepared by the Consultant Team and the City of Portsmouth. The survey was distributed to organized field sports groups based in Portsmouth. The list of organizations surveyed was developed in coordination with the City of Portsmouth Recreation Department.

The Consultant Team did not survey the Portsmouth School District sports teams because this information was provided directly by the City of Portsmouth Athletic Department.

Refer to the chart on the following page.

Portsmouth Athletic User Group Summary August of 2009

User Group	Sport	B	G	C	A	Season	Current Size	Potential Growth	Portsmouth Fields Used	# of Fields Used	Other Fields
Portsmouth Little League	Youth Baseball	X	X			4/20-6/20 8/20-10/31	19 teams 230 players	20-22 teams 250 players	Plains, Hislop, Central, Lafayette, New Franklin	Game- 3 Practice-2	Greenland Newington Pickering (Private)
Portsmouth Girls Softball	Fast Pitch Softball		X			March-August	3 teams 39 players	4 teams 52 players	Sherburne Pease	2	N/A
Portsmouth Women's Softball	Slow Pitch Softball		X		X	May 13-August 26	4 teams 63 players	4-5 teams 70-80 players	Alumni Sherburne	2	Greenland
Portsmouth Men's Softball	Softball				X	May1-Aug 31 Tournaments	6 teams 100 players	6 teams 100 players	Alumni	1	N/A
Portsmouth City Soccer Club	Soccer	X	X			Mid-August End-October	13 teams 180 players	14 teams 175-200 players	Clough, Dondero, Lafayette, Maple Haven, New Franklin, Leary, High School	7	Newington Greenland
Portsmouth Co-ed Softball	Softball Soccer			X	X	Late-April Early-Aug	12 teams 240 players	12-14 teams 280 players	High School, Alumni, Clough	3	N/A
Seacoast Lacrosse	Lacrosse	X	X			End March Mid June	310 players	400 players	Dondero	1	Newington Greenland, Rye
Tenants Assoc at Pease	Softball			X	X	May through August	4 teams 80-100 players	8 teams 200 players	Pease -Martins Point	1	N/A
Portsmouth Youth Football	Youth Football	X				Mid August – Mid November	220 – 260 Players	300 players	Alumni High School	2	Greenland
NH Sports & Social Club Seacoast Div.	Kickball Flag Football Softball			X	X	April-October (outdoor sports)	500 players	1000 players	Clough, New Franklin	2	New Castle, NH

Organizations Providing Information Factored into Needs Assessment:

- Portsmouth School District teams
- Other organizations such as AAU.

B – Boys, G-Girls, C-Co-ed, A-Adult

NEEDS ASSESSMENT:

The Consultant Team assembled the data presented by the City of Portsmouth and through the various methods of community input, including web comments, public input meetings, and stakeholder interviews and collated it with regional and national trends information to establish an assessment of need for current and future athletic fields. Based on this information the Consultant Team is able to establish the field "need" for the City of Portsmouth.

Current usage and reasonable projected growth of demand indicates a minimum need for between three (3) and four (4) Medium (300' x 180') or Large (360' x 180') Rectangular, Multi-Use Fields with synthetic turf surfaces and full artificial lighting and between two (2) and three (3) Adult Softball Fields. These numbers assume no action is taken on adding lights at existing fields, or replacing sod with synthetic turf at existing fields. The number of required fields would be reduced by 1 to 2 fields based on improving existing fields and establishing a regular cycle of use and rest for each sod field.

Fields – Recommendations

The Consultant Team gave a public presentation of the "Fields Needs & Recommendations" portion of this report on December 16, 2009. The presentation was hosted by the Recreation Board, and the public was invited to attend, participate, comment and ask questions during that presentation. Following is the outline of information presented:

Presentation Outline for December 16th

1) Introductions (Recreation Board Chairman)

a) Evening Goal – Present needs findings for Fields and draft recommendations, receive feedback
b) Briefly discuss Indoor facilities and next steps for study
c) Implementation preview - Capital improvement plan?
d) Recreation Trust – Annual Capital contributions, proceeds from eminent domain damages, etc.

2) TAT Review of Process to Date

a) Overview of previous public meeting, site visits, interviews, conversations with City.
b) Coordination with PULA study
c) Scope of this study does not include biking trails, walking trails, and similar passive recreaton.

3) Presentation of "Needs" Data

a) Review of chart indicating numbers of fields used and demand of new fields
b) Establish understanding of need for new fields & relationship between added lights and turf at existing fields and reduction of need for new fields.
c) Provide specific # for each type of field

4) Presentation of "Base" Recommendations

a) Replacing sod with synthetic turf
b) Improve practice fields to take pressure off regulation/competition fields
c) Discussion of "Issues" with turf and how they have been addressed
d) Address utility of Field Complexes
e) Adding lights at fields

5) Recommendations

a) City-Owned Property
    1) Portsmouth High School Football Field
    2) Wentworth School (Middle School Replacement Requirement)
    3) Stump Dump (With land acquisition, a regulation softball field with lights)
    4) Dondero School (Current practice field to regulation field, with no lights).
    5) High School Athletic Field Complex - Multi-Purpose Field resurfacing with Turf
    6) Little Harbor Mlti-use space
    7) Doble Army Reserve Center
b) New Field Development Opportunities:
    1) Jones Avenue Site (City-owned)
    2) Peverly Hill Road / Route 33 property
    3) Pease parcel
c) Partnerships with Contiguous Communities

6) Open Floor Discussion / Comments / Questions

The Fields Presentation was accompanied by a slide show including both text and images. The full slide presentation is attached to this report in Appendix H. The presentation, as indicated above, discussed the established "Needs Data" and presented both a series of "Base" recommendations and new field development recommendations.

During the "Needs Data" portion of the presentation, the consultant team discussed the volume of field usage, and the need for additional capacity, as indicated by the survey information and stakeholder interviews with the field user groups. Additionally, information was provided that indicated the lower ratio of fields within the City of Portsmouth, per resident, as compared to the surrounding communities. The consultant team also indicated that the ability to add lights and replace sod fields with synthetic turf fields would alleviate some of the requirement for additional new fields, based on expanded usage time, reduced "rest and recovery time" for each field and increased field durability. The consultant team recommended that, based on the data available, the City of Portsmouth requires an additional three (3) to four (4) rectangular multi-use, synthetic turf fields with full lighting and two (2) to three (3) adult softball fields, with artificial lighting. It was indicated that the lower range of these numbers, and perhaps one less than the number indicated, would be reasonable if significant progress in converting the existing fields to synthetic turf were accomplished.

The Consultant Team made some "Base" recommendations, including replacing sod with synthetic turf at as many field locations as possible, prioritizing the competition fields first. A second recommendation involved improving the practice fields to take pressure off of the regulation/competition fields. Distributing the use for practices will reduce wear and tear on any sad fields. Finally, the consultant team recommended improving the drainage at specific field locations to reduce maintenance costs and increase usage availability.

The Consultant Team was informed that a decision has been made to replace the football field at the High School with synthetic turf, as part of the mitigation for the loss of Alumni Field due to Middle School expansion. For this reason, and based on the Consultant Team's recommendation that additional fields be replaced and all new fields be installed with synthetic turf, the following information was provided:

The Benefits of Synthetic Turf Compared to Sod

- No need for the use of pesticides, resulting in environmental and cost benefits
- No need for irrigation, resulting in reduced cost for water
- No mowing on a weekly basis, resulting in a reduction of maintenance costs
- No fertilizers or chemicals required for maintenance, improving environmental health and reducing costs
- Synthetic turf can be specified to drain vertically so runoff drainage is not an issue
- Increased play time hours/scheduling – Synthetic Turf can be played on during all seasons. Fields do not need to 'recover' like natural turf fields do.
- Cost – initial costs for base prep are equal to natural turf, while materials costs are slightly higher. Cost savings for using synthetic turf are seen when comparing maintenance costs to that of a natural turf field.
- Some materials used in the manufacture of synthetic turf are recycled, including rubber tires, making it a more sustainable product and better for the environment.

There were several questions asked about the safety of synthetic turf fields, based on recent reports of issues with heat, lead and player injuries which may be attributable to the surface, as opposed to natural sod. The consultant team is familiar with these issues, and has provided data related to these questions in Appendix G "Synthetic Turf Safety Data".

The questions regarding synthetic turf are generally of the following topics:

- Synthetic turf and its heat levels on hot summer days may be of concern depending on level of use at the hottest times of the day.

- Numerous studies have been published on the various safety issues/public concerns related to synthetic turf. Many have been skeptical of whether or not synthetic turf is harmful to children. The Consumer Safety Protection Agency has documented that lead levels are not of concern. *(Refer to Reference Documents Provided In Appendix Section "G")*
- Studies have also been done on sports related injuries and whether or not there is a relation to synthetic turf. No significant relationship has been found between the newer synthetic turf products and increases in sports injuries. *(Refer to Reference Documents Provided In Appendix Section "G")*

Generally speaking, the use of synthetic turf has been determined to be safe, for users and the environment. This is particularly true in New England, where temperatures are generally lower in than in other parts of the country, and it is less likely that turf surface temperatures will reach unacceptable levels. Care is required on very hot days to ensure player safety. Information relative to this issue is included in the appendix.

Opportunities for Increasing Usage of Existing Fields

- Adding lighting to an existing field can increase play time. This is especially true since peak play times are usually late afternoons and evenings.
- The resiliency of synthetic turf can greatly increase overall usage and resolve scheduling conflicts when combined with lighting.
- Grouping fields together, as recommended in the attached presentation, will allow for better efficiency of lighting.

Recommended Opportunities for Field Improvement / Development

Existing Locations

The following existing field sites can accommodate increased usage without adverse field condition impacts based on the following recommendations:

Portsmouth High School Site

- The football field (the area inside of the track) has been approved for resurfacing with synthetic turf as part of the middle school project.
- The adjacent Multi-Use Fields (Soccer / Lacrosse) should be scheduled for resurfacing with synthetic turf as soon as capital is available for this work.

Former Wentworth Site

- The Wentworth Site is proposed as an Adult Softball Field, with appropriate parking, lighting, fencing, seating and similar amenities as part of the Middle School Field Replacement scope. It is understood by the Consultant Team that the replacement field will be completed and usable prior to loss of the existing field due to Middle School construction.

New Fields

The Consultant Team is generally recommending that a complex of multiple fields and field types will be the most efficient, useful and cost effective method of increasing field capacity in the City of Portsmouth. The inclusion of multiple fields in one location will reduce the need for families to commute from field to field for different age groups or activities in a single day, will allow for competition tournaments to be held, and will result in a greater financial capacity for field creation based on limiting the number of sites being developed. As part of the scope of this report, the Consultant Team received information on specific parcels of land which the City of Portsmouth staff determined were appropriate for review and preliminary yield study review.

The accompanying diagrams indicate the size, configuration and number of fields determined as part of the yield study. A full survey and engineering study will be required to confirm the preliminary layouts and configurations.

Stump Dump

New Opportunity Description:

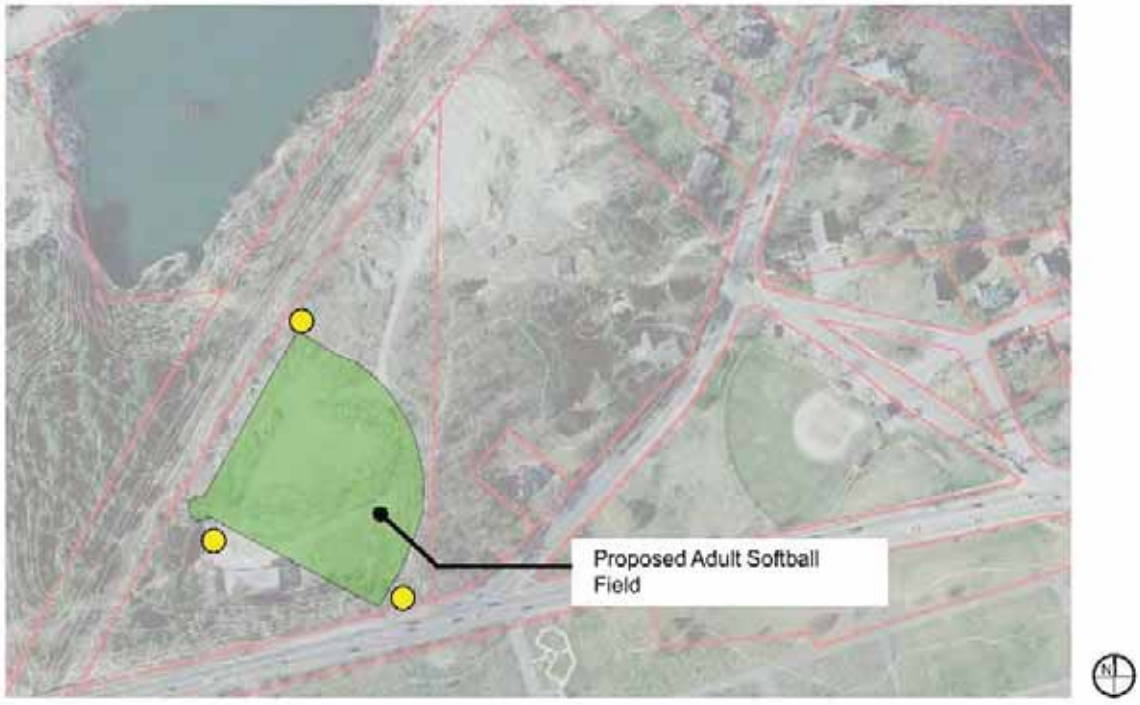
- Proposed as an Adult Softball Field with Artificial Lighting

Pros:

- This site is city owned and no acquisition costs would be incurred.
- If a nearby parcel is acquired for recreation use (see below) this site may present a good opportunity to create a sports complex, with the existing little league field to the east of this site.

Cons:

- This is a small site with some difficult topography.
- Vehicular access may be difficult off of route 33
- Site does not allow for optimal softball orientation.



Jones Avenue Site

New Opportunity Description:

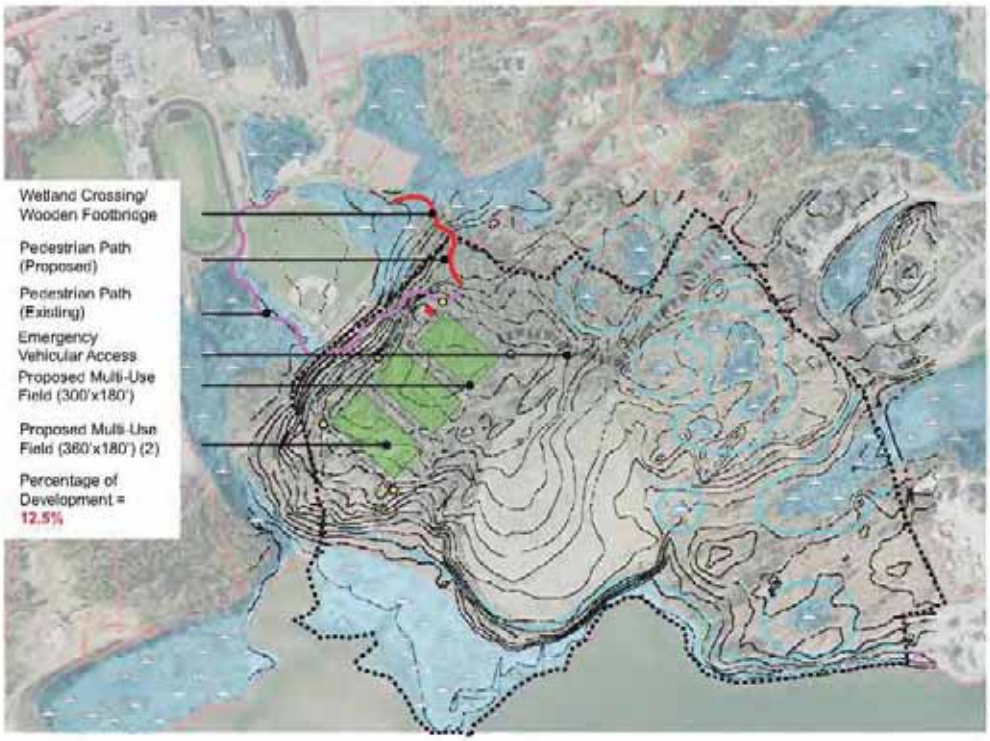
- Two (2) Proposed Large Multi-Use Fields with Lighting (360'x180') and
- One (1) Proposed Medium Multi-Use Fields with Lighting (300'x180')
- Parking will be handled on the school property. The exact location and access configuration for this parking would be determined as part of the engineering study and site survey.
- A new trail from the school property will lead students to the fields through the woodland. This trail may have to cross wetlands and will need to be wide enough to accommodate a small vehicle.
- An existing trail that wraps around the baseball field can be improved.
- The existing access road off of Jones Ave. will only be used for emergency vehicles. Improvements may need to be made to accommodate authorized vehicles.
- The yield study design is intended to avoid the capped ash landfill.

Pros:

- The location is adjacent to the existing high school, adding to the campus and creating a sports complex at a central location.
- Recreational development could be limited to less than 15% of the parcel acreage.
- The site is city owned and no acquisition costs would be incurred.

Cons:

- The site includes difficult topography that may require retaining walls for fields to be located as shown
- Woodland clearing will be required
- Access from the High School campus is limited with no opportunity for direct vehicular access
- Parking for the fields may require reworking the tennis courts at the High School



Peverly Hill Road / Route 33 Site (Option A)

New Opportunity Description:

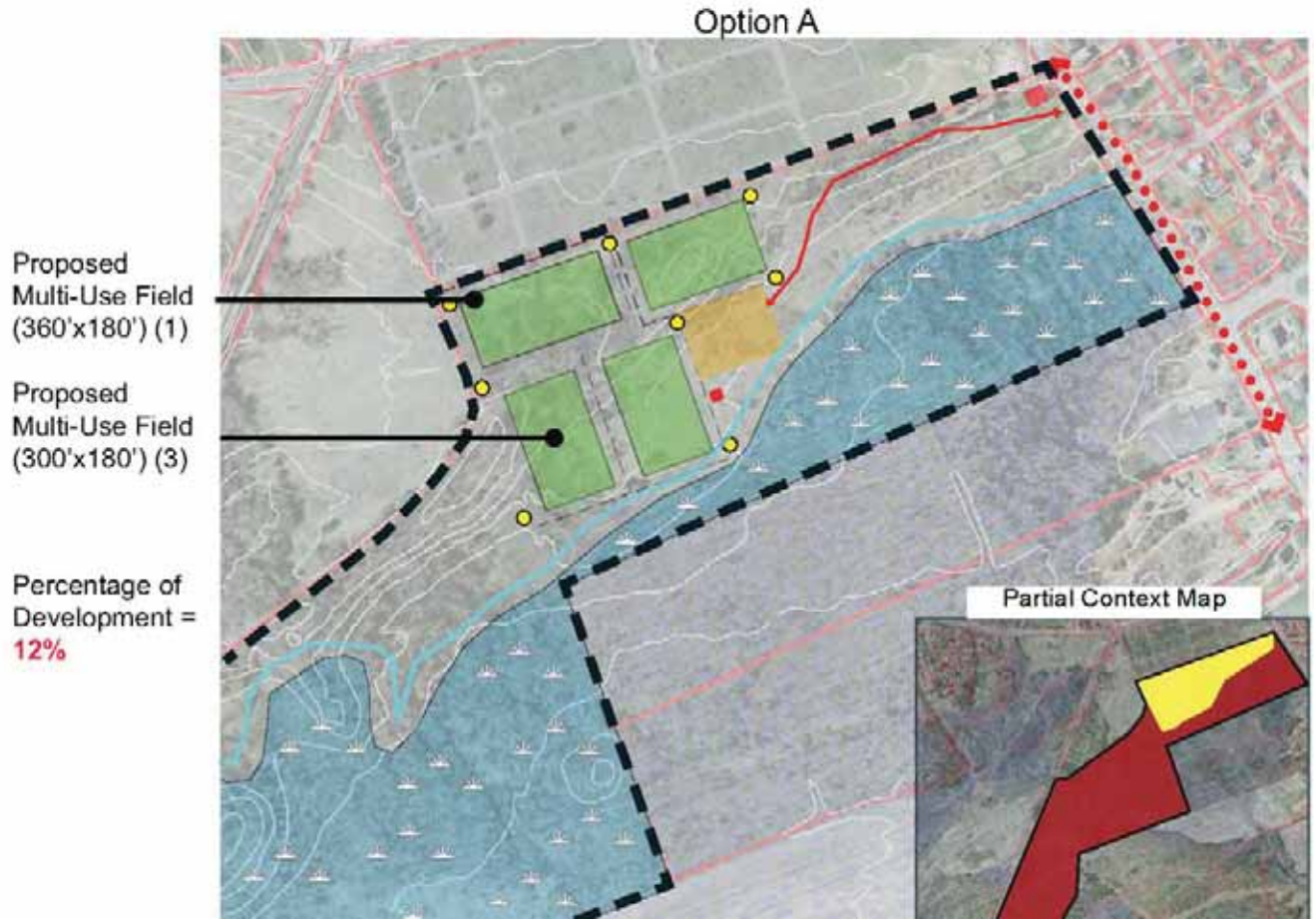
- One (1) Proposed Large Multi-Use Fields with Lighting (360'x180')
- Three (3) Proposed Medium Multi-Use Fields with Lighting (300'x180')
- Percentage of total site developed for Field and Parking Use = 12%

Pros:

- The Peverly Hill Road site presents a unique opportunity for athletic field development due to its location. The site is contiguous to the Nature Conservancy conservation parcel as well as the City's Great Bog. Adding this site (107 acres) would increase overall conservation land in this vicinity to 687 acres.
- This combination of parcels would create a recreation hub where people can park to access either the new fields or conservation land, where a future trail system could be developed.
- Site access is proximate to Route 33.

Cons:

- The increase of traffic along Peverly Hill Road is a concern
- Site topography will ultimately require the implementation of retaining walls
- Some limited intrusion into the wetland buffer may be required to maximize the parcels usage.



Peverly Hill Road / Route 33 Site (Option B)

New Opportunity Description:

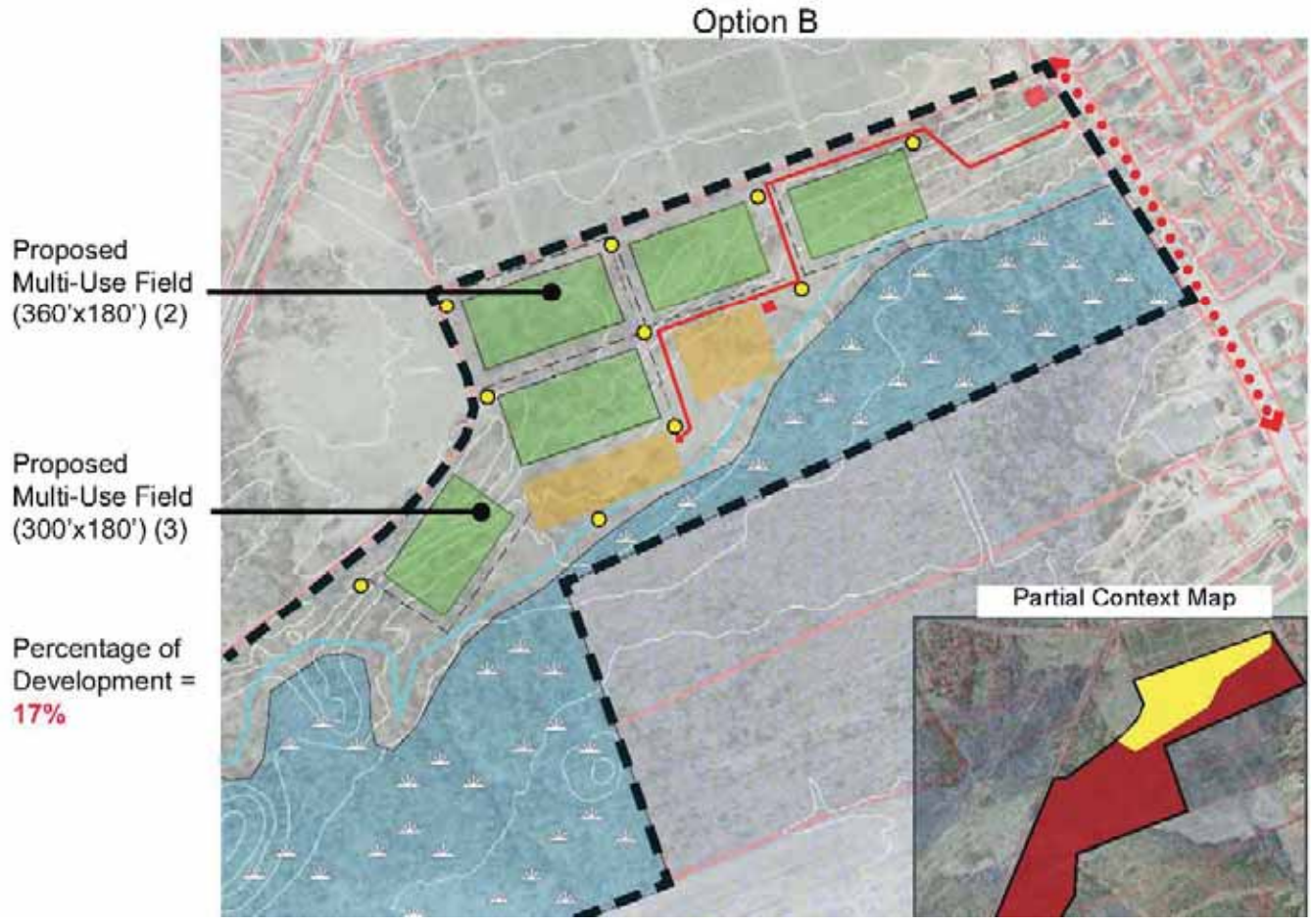
- Two (2) Proposed Large Multi-Use Fields with Lighting (360'x180')
- Three (3) Proposed Medium Multi-Use Fields with Lighting ((300'x180')
- Percentage of total site developed for Field and Parking Use = 17%

Pros:

- The Peverly Hill Road site presents a unique opportunity for athletic field development due to its location. The site is contiguous to the Nature Conservancy conservation parcel as well as the City's Great Bog. Adding this site (107 acres) would increase overall conservation land in this vicinity to 687 acres.
- This combination of parcels would create a recreation hub where people can park to access either the new fields or conservation land, where a future trail system could be developed.
- Site access is proximate to Route 33.

Cons:

- The increase of traffic along Peverly Hill Road is a concern
- Site topography will ultimately require the implementation of retaining walls
- Some limited intrusion into the wetland buffer may be required to maximize the parcels usage.



Pease Site

New Opportunity Description:

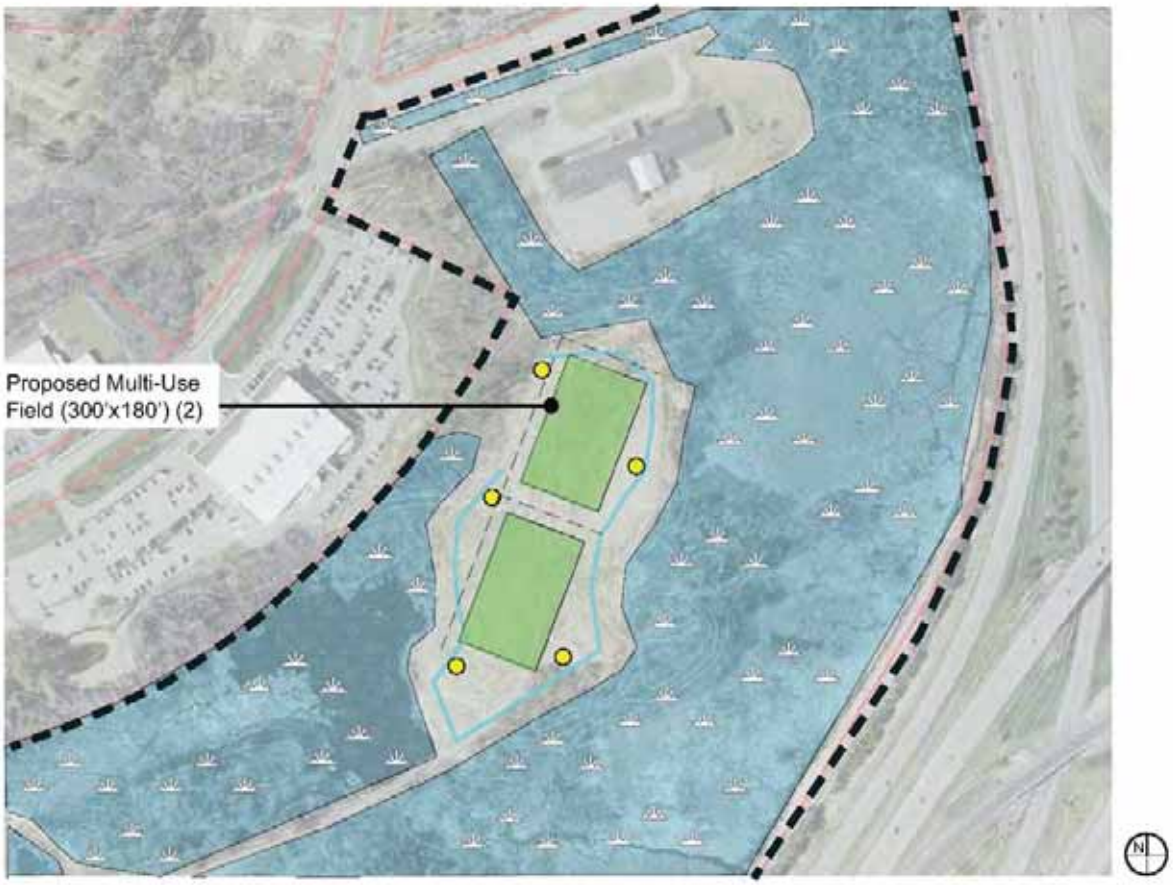
- Two (2) Proposed Medium Multi-Use Fields with Lighting (300'x180')

Pros:

- The site is a relatively flat area.
- The site is proximate to a large group of potential adult users.

Cons:

- The site is relatively remote from the majority of school age programming and users.
- The site may require vehicular/pedestrian intrusion into the wetland buffer



Doble Army Reserve Site

In 2008, the city proposed a recreation reuse for this site. Specifically, a multi-use field was envisioned, which included artificial lighting and related amenities. Developing a field at this site would help meet demand for rectangular multi-use field space and add one field to the City's inventory. While developing new field sites as part of a complex is preferred, development of this study.

Facilities Scope

The second major component of the Comprehensive Recreation Needs Study was related to Indoor Recreation Facilities, including the existing youth, adult and aquatics programs. The scope of this portion of the study included:

1) A limited review of the existing conditions of the four indoor recreation facilities
   - Spinnaker Point
   - Connie Bean Community Center
   - Greenleaf Recreation Center
   - Portsmouth Indoor Pool

2) A process of public input, including:
   - Public Community Input Session on June 16, 2009
   - Public Community Input Session on February 18, 2010
   - Stakeholder Interviews (June 2009, September 2009, February 2010)
   - Web Comments to the City Website

3) Compilation of Needs Assessment Data

4) Recommendations for Indoor Facilities

It is important to note that a significant opportunity for community input and engagement was not able to be maximized due to the unfortunate timing of the February 2010 Facilities Public Input meeting less than two weeks after the City of Portsmouth had announced possible plans to close the Portsmouth Indoor Pool. While significant preliminary input was received during the first Public Community Input Session in June of 2009, and through the Web Comments and Stakeholder Interviews, the second Public Community Input Session was to have been the opportunity for specific engagement with respect to proposed short, medium and long term recreation facility solutions and options, as well as a dialogue about recreation program priorities, and needs. Due to the concurrent dialogue related to closure of the indoor pool for budget reasons, the vast majority of the second public input session was dedicated to short term options for "saving" the indoor pool and testimonials related to the importance of the Indoor Pool to the community. While this dialogue was informative, it would not have originally been scheduled for a dedicated community input session, and resulted in a loss of opportunity for the consultants to engage the community as related to other forms of indoor recreation priorities and needs.

As a result, the majority of the Facilities "Recommendations" section has been based on the comments that were received in the first input session, through the web comments, stakeholder interviews, and national and regional trends applicable to similar communities. Guidance from the Recreation Department was given to assume steady growth in the existing programmatic offerings as well as suggestions received from the public input process relative to expanded and new services. Community input on program priorities should be assessed as part of the early process of design and development of the recommended comprehensive indoor recreation and aquatics center, to more specifically establish the program priorities and goals of the community.

Facilities – Existing Conditions Analysis

The initial Request for Proposal issued by the City of Portsmouth included an "Existing Conditions" scope which included review of the existing physical facilities as well as existing programming. This aspect of the project was subsequently modified to a cursory review of the existing facilities and greater emphasis on existing programs, with specifically limited responsibility for building or facility physical analysis or study. The focus of the Consultant work related to "existing conditions" was to be generally limited to program analysis and investigation of operational efficiency opportunities. The Consultant team did perform a walk-though viewing of the following City of Portsmouth recreation facilities:

1) Spinnaker Point Adult Recreation Center
2) Connie Bean Community Center
3) Greenleaf Youth Recreation Center
4) Portsmouth Indoor Pool
5) Pierce Island Outdoor Pool
6) Portsmouth High School Gym

Based on the above, the following portion of the report provides a limited scope, basic overview of the existing City of Portsmouth facilities. The Consultant Team was not retained to provide, nor has it provided a comprehensive existing condition analysis or engineering report on these facilities. Any significant redevelopment, renovation, sale, capital improvement investment, or other modification of the current use, ownership or programming of any of the above noted facilities will require a comprehensive facility analysis, engineering report, and code study prior to commencement of the intended modification.

Public Indoor Recreation Facilities

Spinnaker Point Adult Recreation Center – The facility includes a gym, track, fitness area, 4 lane lap pool, aerobics room and a multipurpose room. However, the facility is operated under a 30 year lease agreement with the Spinnaker Point Condominium Association that limits the use of the facility to adults only. The center only offers memberships to Portsmouth residents while non-residents can buy a daily pass. Long term the building has a number of maintenance and physical shortcomings that will impact its use. There are approximately 1,500 members.

Spinnaker Point Adult Center

Greenleaf Recreation Center – This center was once a Coast Guard maintenance facility that the City took over and converted to a recreation facility. It has a small gym area, meeting room with a kitchen, and a multipurpose area. There is also a small outdoor skateboard park. The center serves youth and adult activities and sports. The center is relatively inexpensive to operate but the building is not in great condition and is limited in its use. The is limited opportunity for expanded recreational use at this site. Significant capital investment for expansion or renovation is unwarranted, as the size of the site limits the real opportunity for a comprehensive recreation facility and significant renovation of the existing structure is cost prohibitive based on potential yield.

Greenleaf Recreation Center

Connie Bean Community Center – Located in downtown, this building was constructed in 1915 as a USO facility. Recently, due to fire code egress violations, the facility has been limited to first floor uses. Programs previously housed in this facility have been relocated to alternative sites, including both public and private facilities. The first floor does include an extremely small gym. The building is in very poor condition and most of the facility is no longer useable. It also suffers from a lack of parking. The facility was not originally designed as an indoor recreation center, and due to its age and structural configuration, there is no real opportunity for renovation for significant recreational use. Any renovation of the facility for recreation purposes would be cost prohibitive.

Connie Bean Community Center

Portsmouth Indoor Pool – The pool is located on the edge of the Portsmouth High School campus but is a free standing building that features a 6 lane by 25 meter pool with a 1 meter board and a hot tub. This thirty year old facility is in need of a significant capital upgrade. The pool operates with a substantial financial subsidy as it has very little appeal to recreational swimmers. It has approximately 800 members. Additional detail related to the Portsmouth Indoor Pool can be found in the Facility Recommendations section of the report.

Portsmouth Indoor Pool

Other – In addition to the four facilities noted above, the City's schools have a number of facilities (gyms, fields, etc.) that are utilized for community recreation purposes. Additionally, the City of Portsmouth operates a large outdoor pool and boat launch at Pierce Island. The Pierce Island facilities are an important community asset and have received significant community investment in recent years. These facilities were not part of the Consultant Team study scope.

Pierce Island Outdoor Pool

Portsmouth Service Area Providers: There are a significant number of facilities in the greater Portsmouth area that are supplying recreation, fitness, aquatics and sports activities. The following is a brief review of some of the major providers in the public, non-profit and private sector.

Town of Kittery, ME

Kittery Community Center – This small community center building has three program rooms but its use is limited to more passive recreational activities. It is also in poor condition. The Town is currently planning to build a new recreation center by remodeling and expanding the former Frisbee School building.

Portsmouth Naval Shipyard - The Navy Yard in Kittery also has a small recreation center (no pool) but this facility has limited to no access to the general public.

Non-Profit Providers

There are also several non-profit facilities in the greater Portsmouth area. These include:

Seacoast Family YMCA – Located in Portsmouth, the Y has an indoor 6 lane by 25 meter pool, fitness center, outdoor pool, drop-in childcare area, nursery, kitchen, aerobics room and locker rooms. The YMCA has approximately 5,000 members.

Seacoast Family YMCA

Foundation for Seacoast Health, New Heights Adventures for Teens – New Heights, a program at the facility, provides a large comprehensive facility for teens in the area. The building is part of the Community Campus and includes a gym, climbing wall and game room.

It should be noted that there are several other large non-profit facilities that are located outside of the immediate area including The Works Family Health & Wellness Center in Somersworth. There are also plans to build a significant indoor recreation and social services center in Exeter (Squamscott Community Commons).

Private Recreation Providers

In addition to the public and non-profit facilities noted above there are several private clubs in the area. This includes the following facilities:

Planet Fitness – This is a smaller store front fitness center. It only has weight/cardio equipment with no group exercise room.

Coastal Fitness – Located in Kittery this is a small fitness center.

Seacoast Sports Clubs – The primary location is in downtown Portsmouth and it features a large fitness area, gym, racquetball courts and other amenities. Seacoast Sports Clubs also now owns the Gold's Gym facility. There is also a third location in Newmarket.

Gold's Gym (Seacoast Sports Club) – This club has a small indoor pool a large fitness area and squash courts.

In addition to these facilities, there are also a number of smaller fitness facilities, dance, martial arts and yoga studios. Many of the hotels and motels in the area also have indoor pools and even small fitness areas but these are generally only open to hotel guests. It should also be noted that there is a significant private water park (Water Country) located in Portsmouth.

During the Public Input process, there was some concern expressed by existing private providers regarding the possibility that a new public recreation center (if it contains fitness amenities) would adversely impact their market and business. However, private fitness clubs typically serve very different clientele and usually do not compete head to head for the same users. It is conservatively estimated that well over 50% of the users of a public facility will have never been to a private facility and would have no interest in joining such a center.

This is a representative listing of alternative recreation, fitness and sports facilities in the greater Portsmouth area and is not meant to be a total accounting of all service providers. There may be other facilities located in the greater service area that have an impact on the market as well.

EXISTING CONDITIONS SUMMARY

Generally, the City of Portsmouth indoor recreation facilities, while cherished by the community, and utilized to the maximum capacity or ability based on the limitations of size, programmability and safety, are outmoded, inefficient and not conducive to a comprehensive multi-generational recreation program for an active and diverse community of the size of the greater Portsmouth area. The indoor non-aquatic recreation facilities were not designed for the recreational uses they are serving and are neither multi-use, nor age specific in design, and do not include appropriate safety features or programmability components desires by the community. Similarly, the indoor pool facility is an outdated facility that requires replacement with a comprehensive recreational aquatic facility if the subsidy level per user is to be significantly reduced, or requires significant capital investment and a commitment to regular maintenance investment on the part of the City, if it is to continue to operate for more than a few years. None of the existing facilities represent a real opportunity for significant renovation, expansion, or replacement on the existing site to meet the future long term recreation needs of the community. Of final note, relative to the existing facilities, is the positive aspect of the public – private partnership established at the Spinnaker Point facility. This type of creative partnership will be important as the City moves forward in their planning. Partnering in meaningful ways with corporate sponsors and non-profit organizations, including area businesses, foundations, health-related institutions should be a high priority with the goal of maximizing the City investment through leverage dollars and broad financial and programmatic support across the full spectrum of community organizations, providers and stakeholders.

Facilities – Needs Assessment

The following section of the report addresses:

1) City of Portsmouth Demographic Summary and Market Review
2) Recreation Center Trends
3) Community Recreation Center Benchmarks
4) Recreation Market Orientation
5) Market Segment Analysis
6) City of Portsmouth Recreation Needs Assessment and Market Conclusion

Demographic Summary & Market Review

The following is a summary of the basic demographic characteristics of the City of Portsmouth and the immediate surrounding area, as well as a comparison with basic sports participation standards as produced by the National Sporting Goods Association.

Service Areas: The focus of this market analysis is the City of Portsmouth proper (identified as the primary service area). It is recognized that Portsmouth already has a regional draw to its recreation facilities and as a result a larger secondary service has been identified that includes Greenland, Newington, New Castle, Rye and Kittery, ME. There may be additional users from outside this secondary service area, but this will be much more limited.

Primary service areas are usually defined by the distance people will travel on a regular basis (a minimum of once a week) to utilize a facility or its programs. Secondary service areas are usually defined by the distance people will travel on a less consistent basis (a minimum of once every other week) to utilize a facility or its programs.

Service areas can also vary in size with the types of components that are included in a facility. A center with active elements (weight cardiovascular equipment area, gym, track, etc.) will generally have a larger service area than a more passively oriented or single use facility. Specialized facilities such as a sports field houses will have even larger service areas.

Service areas can also be based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative service providers in the primary service area. Alternative service providers can have an impact upon membership, admissions and usage rates for programs and services.

Table A - Service Area Statistics & Comparison

Source – U.S. Census Bureau and ESRI

Population Comparison:

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area - Portsmouth	20,784	21,163	21,055
Secondary Service Area	37,523	39,131	39,453

Number of Households Comparison:

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area - Portsmouth	9,875	10,271	10,304
Secondary Service Area	16,936	17,980	18,260

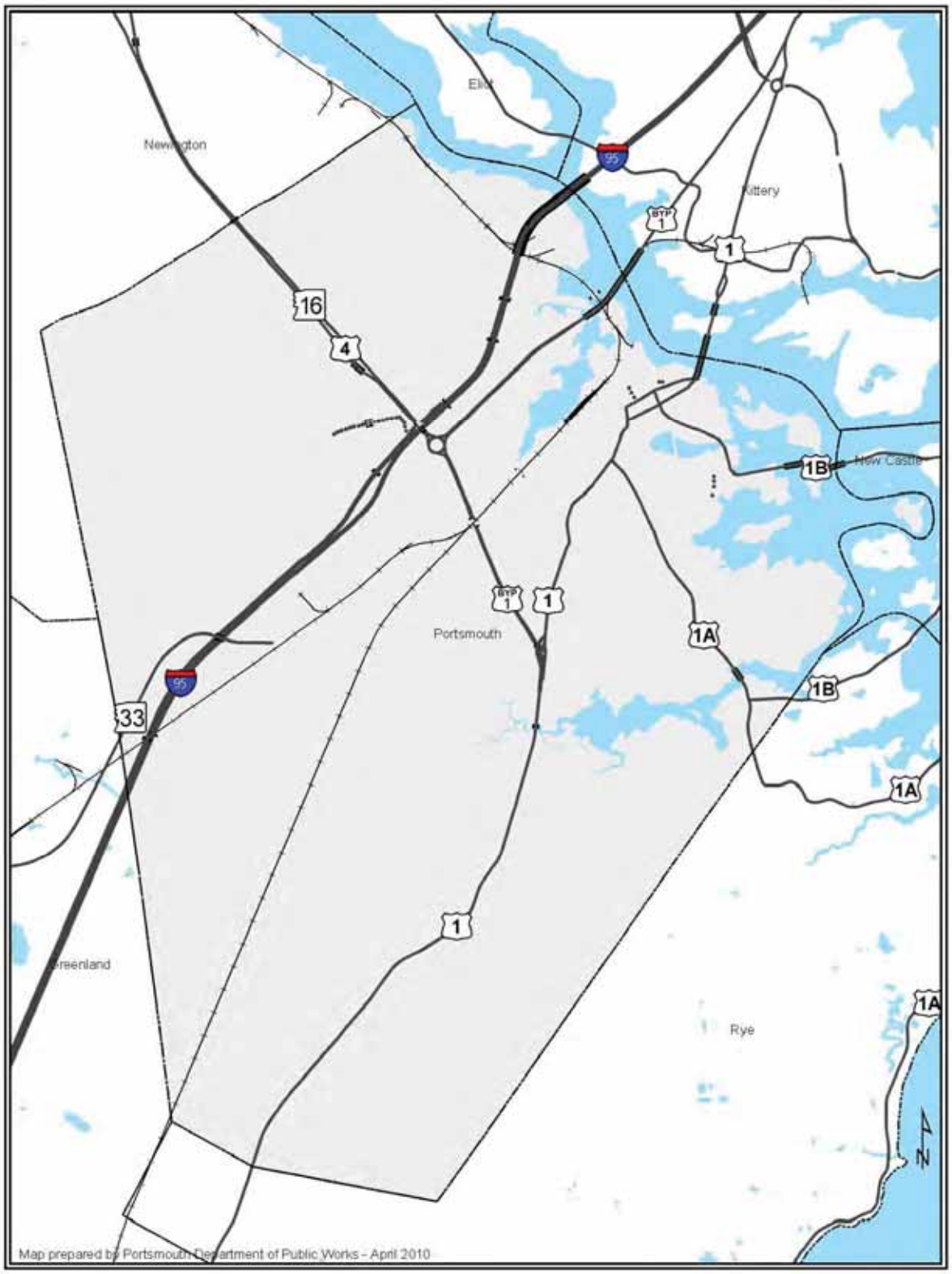
Number of Families Comparison:

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area - Portsmouth	4,862	4,932	4,886
Secondary Service Area	9,464	9,855	9,916

Average Household Size Comparison

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area - Portsmouth	2.04	1.99	1.98
Secondary Service Area	2.16	2.12	2.10
United States	2.59	2.59	2.59

Map A – City of Portsmouth – Primary Service Area



Population Distribution by Age: Utilizing census information for the primary service area, the following comparisons are possible.

Table B – 2009 Primary Service Area Age Distribution
(ESRI estimates)

Ages	Population	% of Total	Nat. Population	Difference
-5	1,000	4.8%	7.0%	-2.2%
5-17	2,377	11.4%	17.4%	-6.0%
18-24	1,907	9.0%	9.9%	-0.9%
25-44	6,610	31.2%	26.9%	4.3%
45-54	3,233	15.3%	14.6%	0.7%
55-64	2,548	12.1%	11.4%	0.7%
65-74	1,535	7.3%	6.6%	0.7%
75+	1,953	9.3%	6.2%	3.1%

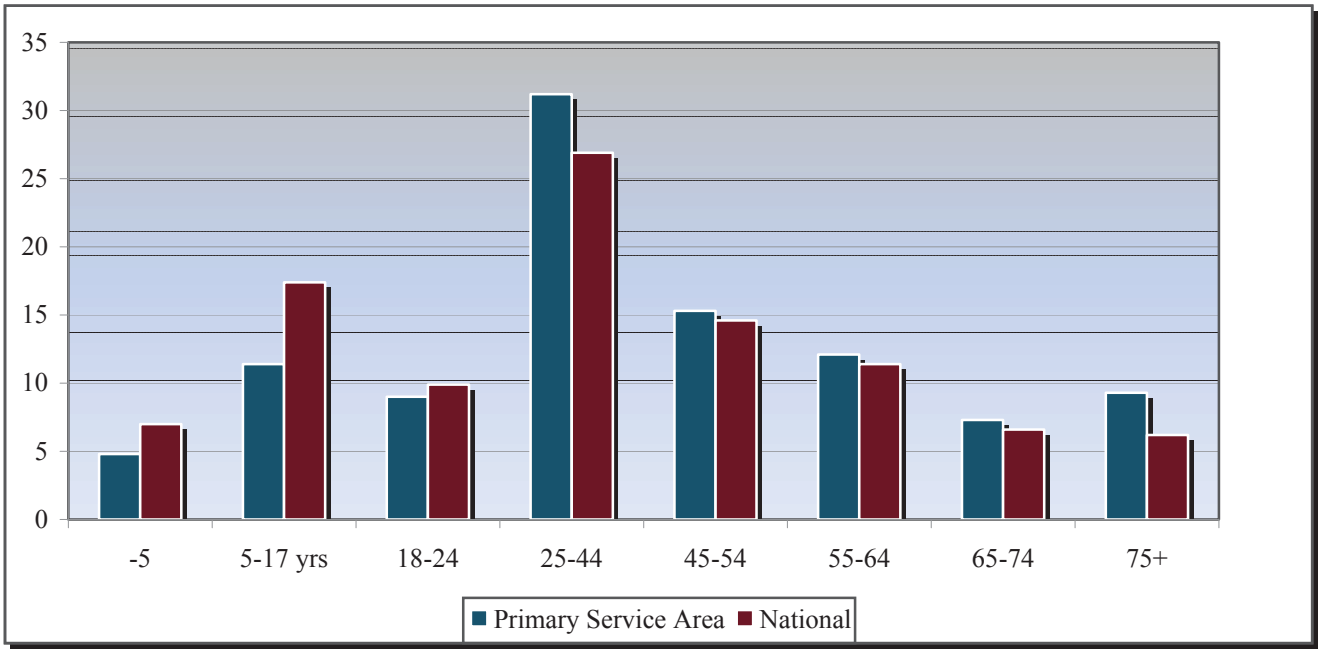
Population: 2009 census estimates in the different age groups in the primary service area.

% of Total: Percentage of the primary service area population in the age group.

National Population: Percentage of the national population in the age group.

Difference: Percentage difference between the service area population and the national population.

Chart A – 2009 Primary Service Area Age Group Distribution

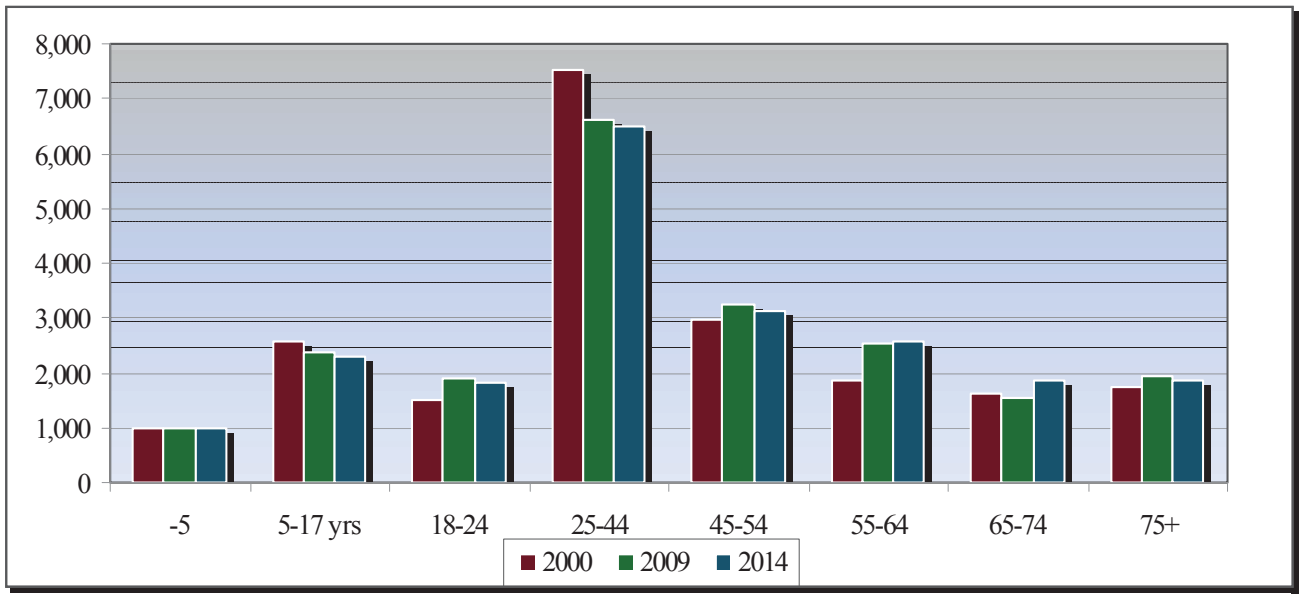


Population Distribution Comparison by Age: Utilizing census information from the primary service area, the following comparisons are possible.

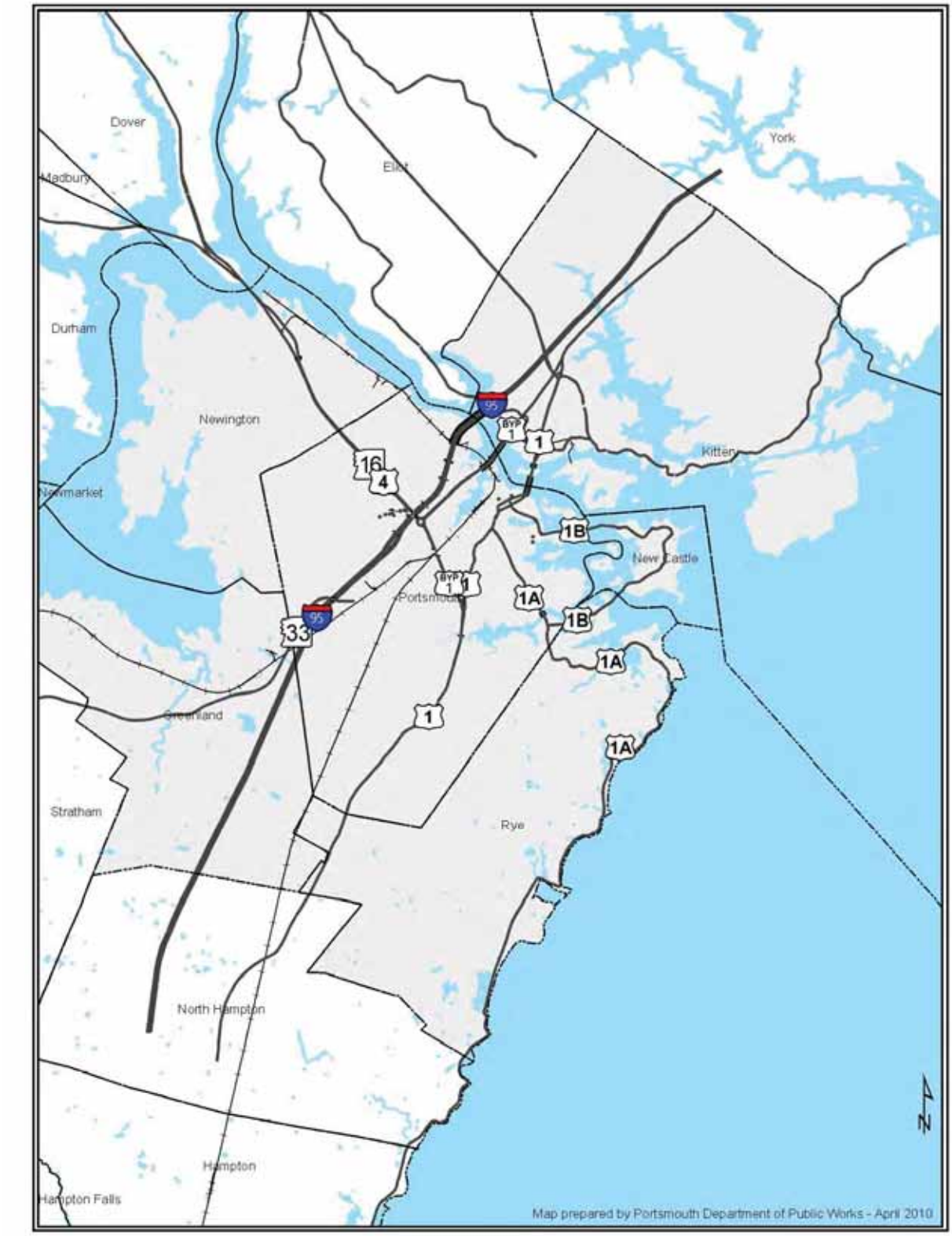
Table C – 2009 Primary Service Area Population Estimates
(U.S. Census Information and ESRI)

Ages	2000 Population	2009 Population	2014 Population	Percent Change From 2000	Percent Change Nat'l
-5	1,009	1,000	998	-1.1%	14.4%
5-17	2,556	2,377	2,287	-10.5%	4.7%
18-24	1,495	1,907	1,819	21.7%	16.2%
25-44	7,526	6,610	6,513	-13.5%	0.6%
45-54	2,952	3,233	3,123	5.8%	16.2%
55-64	1,862	2,548	2,589	39.0%	64.3%
65-74	1,629	1,535	1,868	14.7%	41.3%
75+	1,755	1,953	1,858	5.9%	19.1%

Chart B – Primary Service Area Population Growth



Map B – Secondary Service Area



Population Distribution by Age: Utilizing census information for the secondary service area, the following comparisons are possible.

Table D – 2009 Secondary Service Area Age Distribution
(ESRI estimates)

Ages	Population	% of Total	Nat. Population	Difference
-5	1,919	4.9%	7.0%	-2.1%
5-17	5,060	13.0%	17.4%	-4.4%
18-24	3,369	8.6%	9.9%	-1.3%
25-44	10,661	27.4%	26.9%	0.5%
45-54	6,351	16.2%	14.6%	1.6%
55-64	5,140	13.1%	11.4%	1.7%
65-74	3,142	8.0%	6.6%	1.4%
75+	3,492	8.9%	6.2%	2.7%

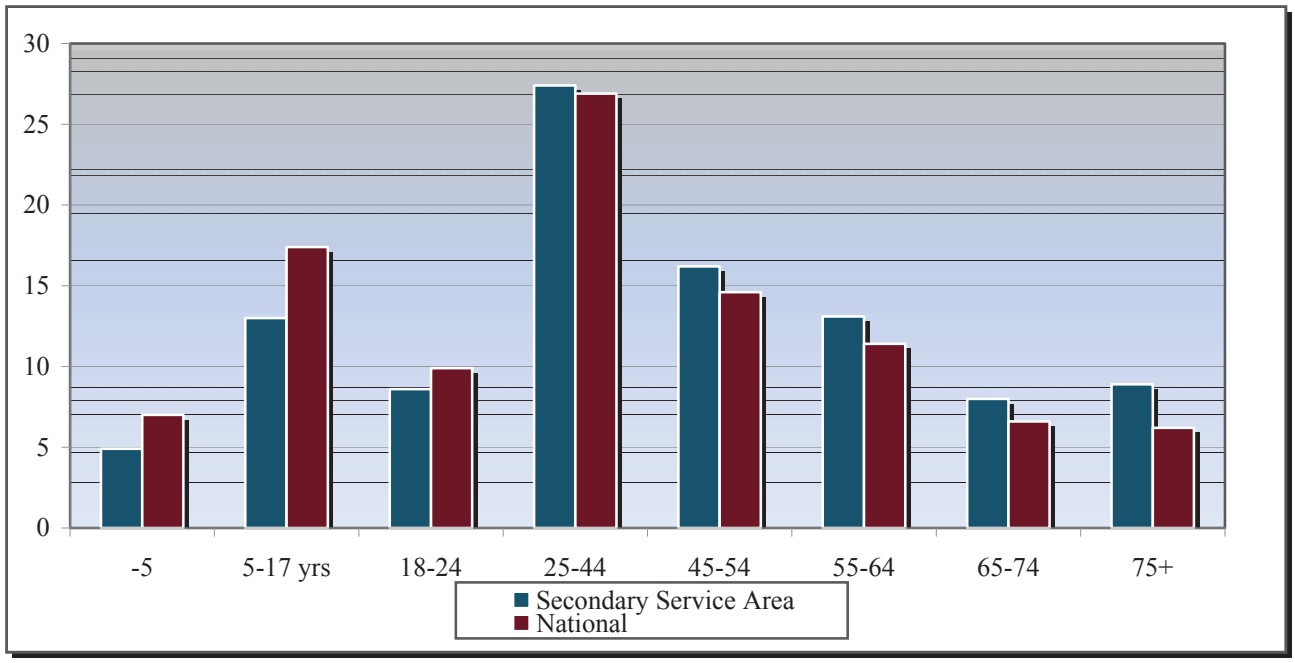
Population: 2009 census estimates in the different age groups in the secondary service area.

% of Total: Percentage of the secondary service area population in the age group.

National Population: Percentage of the national population in the age group.

Difference: Percentage difference between the service area population and the national population.

Chart C – 2009 Secondary Service Area Age Group Distribution

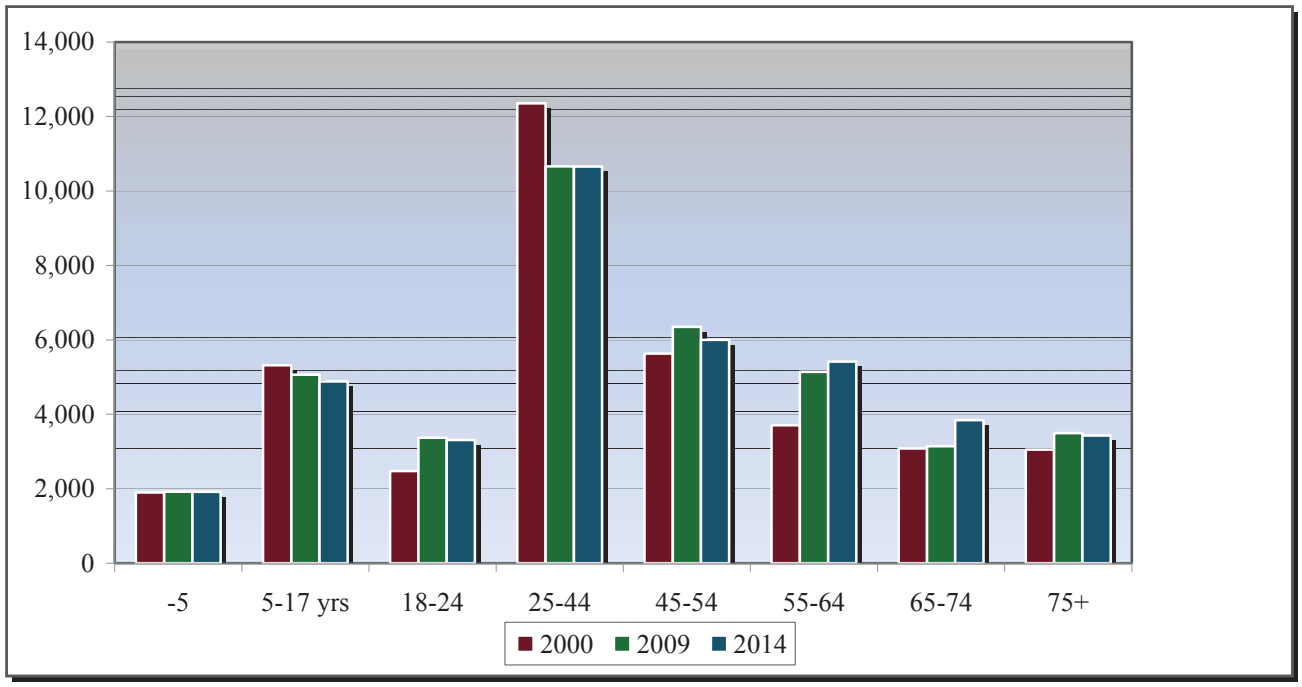


Population Distribution Comparison by Age: Utilizing census information from the secondary service area, the following comparisons are possible.

Table E – 2009 Secondary Service Area Population Estimates
(U.S. Census Information and ESRI)

Ages	2000 Population	2009 Population	2014 Population	Percent Change	Percent Change Nat'l
-5	1,899	1,919	1,915	0.8%	14.4%
5-17	5,320	5,060	4,880	-8.3%	4.7%
18-24	2,477	3,369	3,307	33.5%	16.2%
25-44	12,356	10,661	10,655	-13.8%	0.6%
45-54	5,635	6,351	6,004	6.5%	16.2%
55-64	3,705	5,140	5,418	46.2%	64.3%
65-74	3,081	3,142	3,841	24.7%	41.3%
75+	3,049	3,492	3,430	12.5%	19.1%

Chart D – Secondary Service Area Population Growth



Next, the median age and household income levels are compared with the national number. Both of these factors are primary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the income level goes up.

Table F - Median Age:

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area	38.5	41.0	41.4
Secondary Service Area	39.7	42.5	43.0
Nationally	35.3	36.9	37.2

Chart E – Median Age

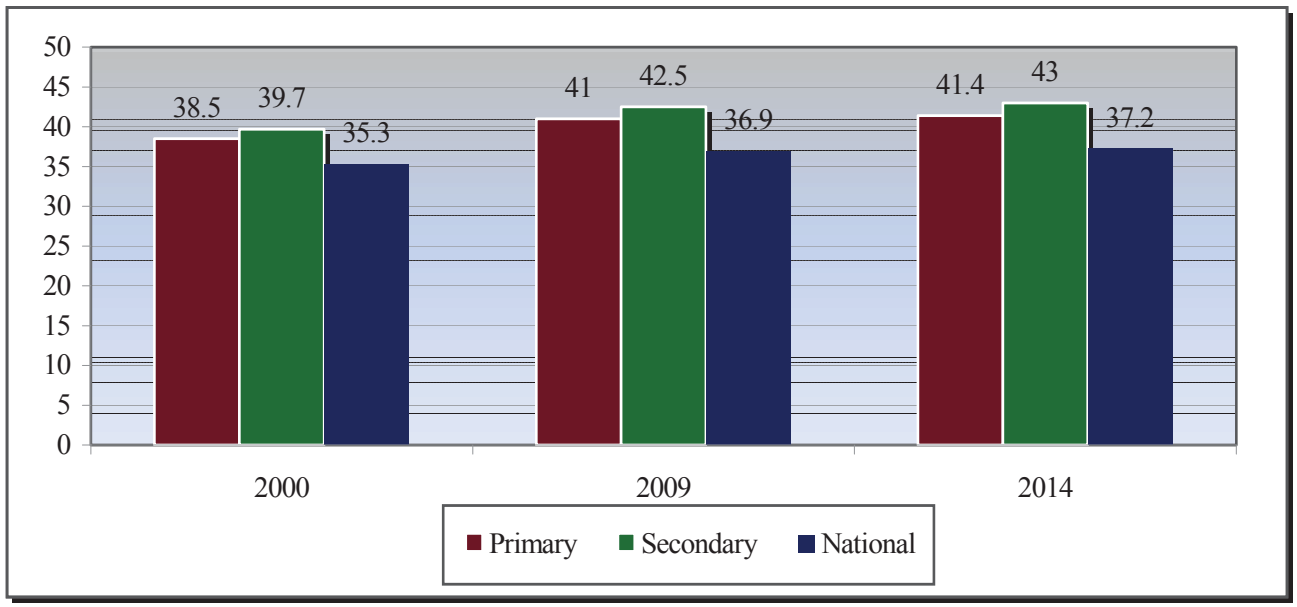
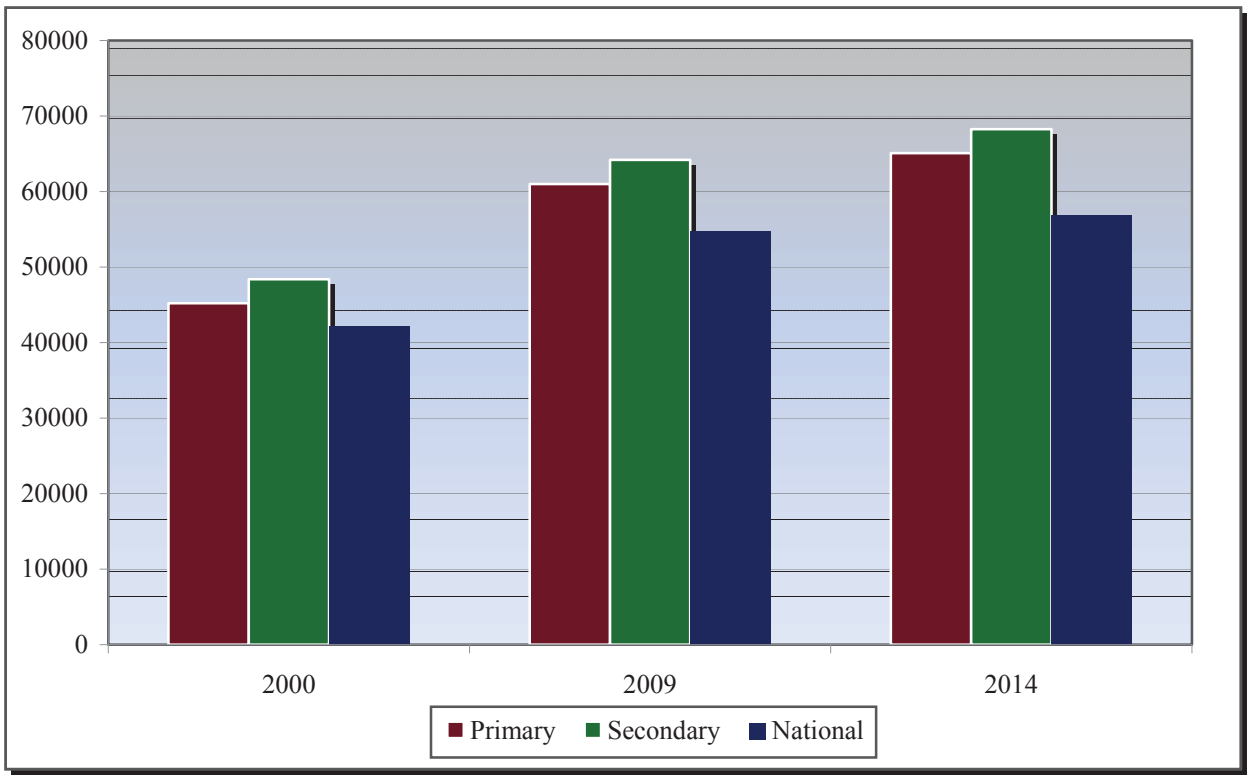


Table G - Median Household Income:

	2000 Census	2009 Estimate	2014 Projection
Primary Service Area	$45,212	$61,003	$65,091
Secondary Service Area	$48,388	$64,203	$68,255
Nationally	$42,164	$54,719	$56,938

Chart F – Median Household Income



In addition to taking a look at Median Age and Median Income, it is important to examine Household Budget Expenditures. In particular looking at housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snap shot into the cost of living and spending patterns in the services areas. The table below looks at that information and compares the primary service area to the State of New Hampshire.

Table H - Household Budget Expenditures[1]

Primary Service Area	SPI	Average Amount Spent	Percent
Housing	112	$22,496.01	30.8%
Shelter	*114*	*$17,800.68*	*24.4%*
Utilities, Fuel, Public Service	*104*	*$4,695.33*	*6.4%*
Entertainment & Recreation	108	$3,483.87	4.8%

New Hampshire	SPI	Average Amount Spent	Percent
Housing	110	$22,124.46	29.9%
Shelter	*110*	*$17,182.24*	*23.2%*
Utilities, Fuel, Public Service	*110*	*$4,942.22*	*6.7%*
Entertainment & Recreation	112	$3,630.62	4.9%

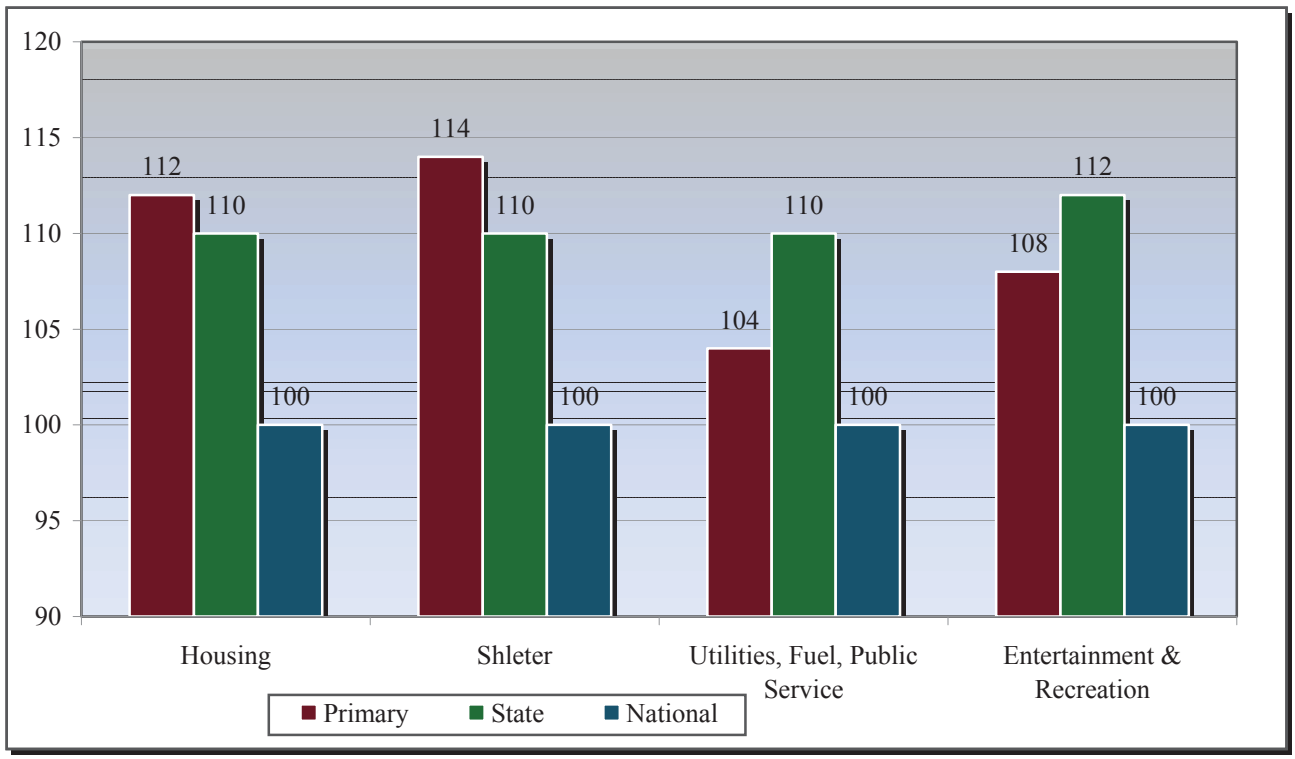
SPI: Spending Potential Index as compared to the National number of 100.

Average Amount Spent: The average amount spent per household.

Percent: Percent of the total 100% of household expenditures. **Note:** Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.

[1] Consumer Spending data are derived from the 2004 and 2005 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2008 and 2013.

Chart G – Household Budget Expenditures Spending Potential Index



Recreation Activities Participation

On an annual basis the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. This information provides the data necessary to overlay rate of participation onto the primary service area to determine market potential.

Comparison With National Statistics: Utilizing information from the National Sporting Goods Association and comparing them with the demographics from the primary service area, the following participation projections can be made (statistics were compared based on age, household income, regional population and national population).

Table I – Participation Rates

Activity	Age	Income	Region	Nation	Average
Aerobic Exercising	13.9%	13.8%	12.7%	13.5%	13.5%
Basketball	9.5%	12.4%	7.6%	11.1%	10.1%
Exercise w/ Equipment	25.8%	24.2%	27.3%	23.5%	25.2%
Exercise Walking	37.1%	37.5%	40.4%	36.1%	37.8%
Running/Jogging	12.7%	13.1%	12.0%	13.4%	12.8%
Volleyball	3.9%	4.2%	3.7%	4.5%	4.1%
Weight Lifting	14.1%	13.8%	15.2%	14.0%	14.3%

Age (median): Participation based on individuals ages 7 & Up of the primary service area.
Income: Participation based on the 2009 estimated median household income in the primary service area.
Region: Participation based on regional statistics (New England).
National: Participation based on national statistics.
Average: Average of the four columns.

Anticipated Participation Numbers by Activity: Utilizing the average percentage from Table-M above plus the 2000 census information and census estimates for 2009 and 2014 (over age 7) the following comparisons can be made.

Table J – Participation Rates

Activity	Average	2000 Part.	2009 Part.	2014 Part.	Difference
Aerobic Exercising	13.5%	2,612	2,669	2,654	42
Basketball	10.1%	1,966	2,009	1,998	32
Exercise w/ Equipment	25.2%	4,889	4,995	4,968	79
Exercise Walking	37.8%	7,327	7,487	7,446	119
Running/Jogging	12.8%	2,480	2,534	2,520	40
Volleyball	4.1%	790	808	803	13
Weight Lifting	14.3%	2,768	2,828	2,813	45
TOTAL		**22,832**	**23,331**	**23,202**	**370**

Participation by Ethnicity and Race: Participation in sports activities is also tracked by ethnicity and race. The table below compares the overall rate of participation nationally with the rate for Hispanics and African Americans. Utilizing information provided by the National Sporting Goods Association's 2008 survey, the following comparisons are possible.

Table K – Comparison of National, African American and Hispanic Participation Rates

	School District Participation	National Participation	African American Participation	Hispanic Participation
Aerobic Exercising	13.5%	13.5%	14.4%	11.4%
Basketball	10.1%	11.1%	22.4%	13.3%
Exercise w/ Equipment	25.2%	23.5%	19.9%	18.7%
Exercise Walking	37.8%	36.1%	36.0%	29.5%
Running/Jogging	12.8%	13.4%	19.8%	12.7%
Volleyball	4.1%	4.5%	5.7%	3.7%
Weight Lifting	14.3%	14.0%	13.7%	11.6%

Primary Service Part: The unique participation percentage developed for the primary service area.

National Rate: The national percentage of individuals who participate in the given activity.

African American Rate: The percentage of African Americans who participate in the given activity.

Hispanic Rate: The percentage of Hispanics who participate in the given activity.

Summary of Sports Participation: The following chart summarizes participation in various sports and leisure activities utilizing information from the 2008 National Sporting Goods Association survey.

Table L – Sports Participation Summary

Sport	Nat'l Rank[2]	Nat'l Participation (in millions)	Primary Service Rank	Primary Service % Participation
Exercise Walking	1	96.6	1	37.8%
Exercising w/ Equipment	3	63.0	2	25.2%
Weight Lifting	10	37.5	3	14.3%
Aerobic Exercising	11	36.2	4	13.5%
Running/Jogging	12	35.9	5	12.8%
Basketball	14	29.7	6	10.1%
Volleyball	25	12.2	7	4.1%

Nat'l Rank: Popularity of sport based on national survey.

Nat'l Participation: Percent of population that participate in this sport on national survey.

Primary Service %: Ranking of activities based upon average from Table-M.

Primary Service Rank: The rank of the activity within the primary service area.

[2] This rank is based upon the 41 activities reported on by NSGA in their 2008 survey instrument.

Comparison of State Statistics with National Statistics: Utilizing information from the National Sporting Goods Association, the following charts illustrate the participation numbers in selected sports in the State of New Hampshire.

State of New Hampshire participation numbers in selected indoor and outdoor sports - As reported by the National Sporting Goods Association in 2008.

Table M – New Hampshire Participation Rates

Sport	New Hampshire Participation (in thousands)	Age Group	Largest Number
Exercise Walking	413	45-54	45-54
Exercising w/ Equipment	181	25-34	25-34
Weight Lifting	174	25-34	25-34
Aerobic Exercising	111	18-24	25-34
Running/Jogging	11	25-34	25-34
Basketball	35	12-17	12-17
Volleyball	46	12-17	12-17

Participation: The number of people (in thousands) in New Hampshire who participated more than once in the activity in 2008 and are at least 7 years of age.

Age Group: The age group in which the sport is most popular or in other words, where the highest percentage of the age group participates in the activity. (Example: The highest percent of an age group that participates in exercise walking is 55-64.) **This is a national statistic.**

Largest Number: The age group with the highest number of participants. Example: The greatest number of exercise walkers is in the 45-54 age group. (Note: This statistic is driven more by the sheer number of people in the age group than by the popularity of the sport in the age span.) **This is a national statistic.**

New Hampshire sport percentage of participation compared with the population percentage of the United States:

New Hampshire's population represents 0.4% of the population of the United States (based on 2009 estimates from ESRI and the Census Bureau).

Table N – New Hampshire Participation Correlation

Sport	Participation Percentages
Weight Lifting	0.5%
Exercise Walking	0.4%
Volleyball	0.4%
Aerobic Exercising	0.3%
Exercising w/ Equipment	0.3%
Basketball	0.1%
Running/Jogging	0.0%

Note: Sports participation percentages refer to the total percent of the national population that participates in a sport that comes from the State of New Hampshire's population.

Recreation Expenditures Spending Potential Index: In addition to participation in recreation activities ESRI also measures recreation expenditures in a number of different areas and then indexes this against national numbers. The following comparisons are possible.

Table O – Recreation Expenditures Spending Potential Index

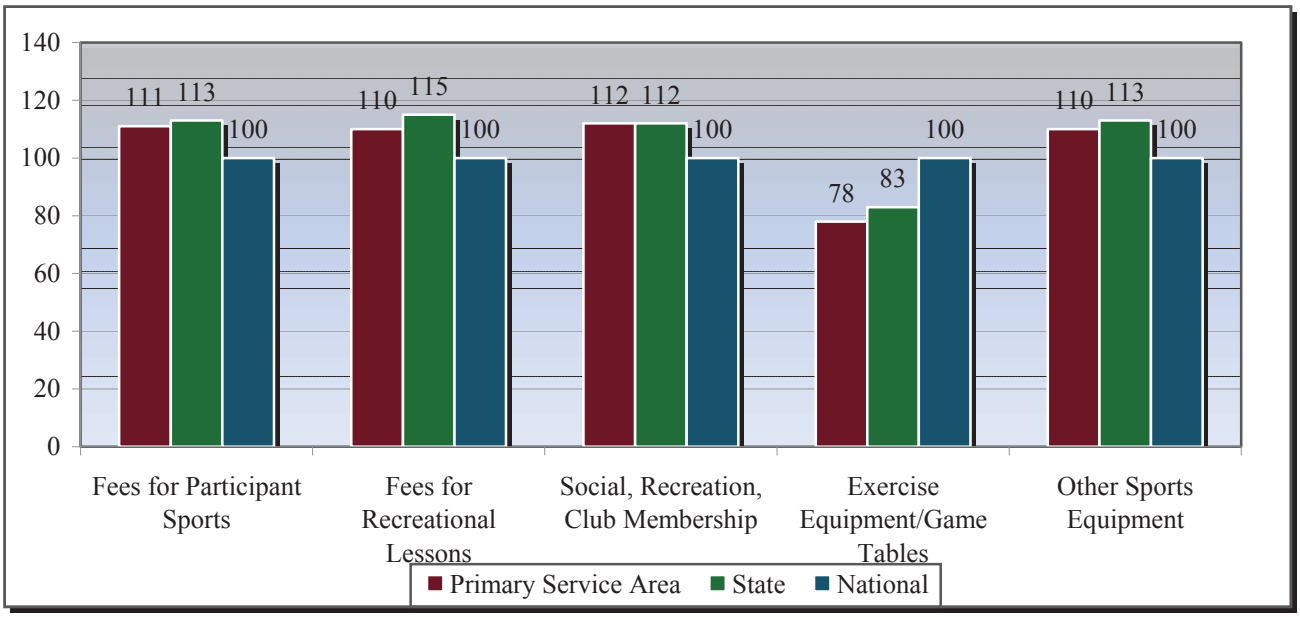
Primary Service Area	SPI	Average Spent
Fees for Participant Sports	111	$122.65
Fees for Recreational Lessons	110	$144.27
Social, Recreation, Club Membership	112	$191.16
Exercise Equipment/Game Tables	78	$77.94
Other Sports Equipment	110	$11.98

State of New Hampshire	SPI	Average Spent
Fees for Participant Sports	113	$125.39
Fees for Recreational Lessons	115	$149.63
Social, Recreation, Club Membership	112	$191.54
Exercise Equipment/Game Tables	83	$82.53
Other Sports Equipment	113	$12.36

Average Amount Spent: The average amount spent for the service or item in a year.

SPI: Spending potential index as compared to the national number of 100.

Chart H – Recreation Spending Potential Index



The SPI index indicates that in all areas the rate of spending is higher than the state average and the National Spending Potential Index (SPI) of 100. This information is very important when determining a price point for activities and cost recovery philosophy.

Below are listed those sports activities that would often take place either in a community recreation facility, or in close proximity to, and the percentage of growth or decline that each has experienced nationally over the last 10 years (1998-2008).

Table P – National Activity Trend (in millions)

Sport/Activity	1998 Participation	2008 Participation	Percent Change
Skateboarding	5.8	9.8	69.0%
Weight Lifting	22.8	37.5	64.5%
Running/Jogging	22.5	35.9	59.6%
Work-Out at Club	26.5	39.3	48.3%
Aerobic Exercising	25.8	36.2	40.3%
Exercising w/ Equipment	46.1	63.0	36.7%
Exercise Walking	77.6	96.6	24.5%
Soccer	13.2	15.5	17.4%
Tennis	11.2	12.6	12.5%
Swimming	58.2	63.3	8.8%
Basketball	29.4	29.7	1.0%
Billiards/Pool	32.3	31.7	-1.9%
Baseball	15.9	15.2	-4.4%
Hockey (ice)	2.1	1.9	-9.5%
Volleyball	14.8	12.2	-17.6%
Softball	15.6	12.8	-17.9%

1998 Participation: The number of participants per year in the activity (in millions) in the United States.

2008 Participation: The number of participants per year in the activity (in millions) in the United States.

Percent Change: The percent change in the level of participation from 1998 to 2008.

RECREATION CENTER TRENDS

Due to the increasing recreational demands there has been a shortage in most communities of the following spaces.

Gymnasiums
Pools (especially leisure pools)
Weight/cardiovascular equipment areas
Indoor running/walking tracks
Meeting/multipurpose (general program) space
Senior's program space
Pre-school and youth space
Teen use areas

As a result, many communities have attempted to include these amenities in public community recreation centers. Leisure pools (with slides and interactive water features) that appeal to younger swimmers and non-swimmers as well as families and seniors have become extremely popular and are being built in conjunction with or instead of conventional pools. Weight/cardiovascular space is also in high demand and provides a facility with the potential to generate significant revenues (along with the leisure pool). Gyms, due to their flexibility and versatility are needed for both youth and adult activities.

The success of most community recreation centers is dependent on meeting the recreational needs of a variety of individuals. The fastest growing segment of society is the senior population and meeting the needs of this group is especially important now and will only grow more so in the coming years. Indoor walking tracks, exercise areas, pools and classroom spaces are important to this age group. Marketing to the younger more active senior is paramount, as this age group has the free time available to participate in leisure activities, the desire to remain fit, and more importantly the disposable income to pay for such services.

Youth programming has always been a cornerstone for recreation services and will continue to be so with an increased emphasis on teen needs and providing a deterrent to juvenile crime. With a continuing increase in single parent households and two working parent families, the needs of school age children for before and after school child care continues to grow as does the need for preschool programming.

The ever increasing demand for programming has put a real squeeze on the number of indoor recreation facilities that are available. Recreation has historically utilized school facilities during non-school hours for its programs and services. However, the limits of using school facilities, the growth in school sports, and the lack of daytime program space has pushed communities to build separate recreation centers or partner with schools to enlarge facilities. Even with these new centers, use of school buildings has continued to be strong and has allowed for the growth in programs and services.

As more and more communities attempt to develop community recreation centers the issues of competition with other providers in the market area have inevitably been raised. The loudest objections have come from the private health club market and their industry voice IHRSA. The private sector has vigorously contended that public facilities unfairly compete with them in the market and have spent considerable resources attempting to derail public projects. However, the reality is that in most markets where public community recreation centers have been built, the private sector has not been adversely affected and in fact in many cases has continued to grow. This is due in large part to the fact that public and private providers serve markedly different markets. One of the other issues of competition comes from the non-profit sector (primarily YMCA's but also JCC's, and others), where the market is much closer to that of the public

providers. While not as vociferous as the private providers, the non-profits have also often expressed concern over public community recreation centers. What has resulted from this is a strong growth in the number of partnerships that have occurred between the public and non-profit sector in an attempt to bring the best recreation amenities to a community.

COMMUNITY RECREATION CENTER BENCHMARKS

Based on market research conducted by Ballard*King and Associates at community recreation centers across the United States, the following represents the basic benchmarks.

- The majority of community recreation centers that are being built today are between 65,000 and 75,000 square feet. Most centers include three primary components A) A pool area usually with competitive and leisure amenities, B) Multipurpose gymnasium space, and C) Weight/cardiovascular equipment area. In addition, most centers also have group exercise rooms, drop-in childcare, and classroom and/or community spaces.

- For most centers to have an opportunity to cover all operating expenses with revenues, they must have a service population of at least 50,000 and an aggressive fee structure.

- Most centers that are between 65,000 and 75,000 square feet have an operating budget of between $1,500,000 and $1,800,000 annually. Nearly 65% of the operating costs are from personnel services, followed by approximately 25% for contractual services, 8% for commodities, and 2% for capital replacement.

- For centers that serve a more urban population and have a market driven fee structure, they should be able to recover 70% to 100% of operating expenses. For centers in more rural areas the recovery rate is generally 50% to 75%. Facilities that can consistently cover all of their operating expenses with revenues are rare. The first true benchmark year of operation does not occur until the third full year of operation.

- The majority of centers of the size noted (and in an urban environment) above average daily paid attendance of 800 to as much as 1,000 per day. These centers will also typically sell between 800 and 1,500 annual passes (depending on the fee structure and marketing program).

- It is common for most centers to have a three-tiered fee structure that offers daily, extended visit (usually punch cards) passes, and annual passes. In urban areas it is common to have resident and non-resident fees. Non-resident rates can cost 25% to 50% higher than the resident rate and are usually a topic of discussion amongst elected officials. Daily rates for residents average between $3.00 and $6.00 for adults, $3.00 and $4.00 for youth and the same for seniors. Annual rates for residents average between $200 and $300 for adults, and $100 and $200 for youth and seniors. Family annual passes tend to be heavily discounted and run between $350 and $800.

- Most centers are open an average of 100-105 hours a week, with weekday hours being 5:00am to 10:00pm, Saturdays 8:00am to 8:00pm and Sundays from noon to 8:00pm. Often hours are shorter during the summer months.

Note: These statistics vary by regions of the country.

MARKET ORIENTATION

Based on the demographic makeup of the service areas and the trends in indoor recreation amenities, there are specific market areas that need to be addressed with such community facilities. These include:

General:

1. Drop-in recreation activities - Critical to the basic operation of any community recreation center is the availability of the facility for drop-in use by the general public. This requires components that support drop-in use and the careful scheduling of programs and activities to ensure that they do not dominate the center and exclude the drop-in user. The sale of annual passes and daily admissions, potential strong revenue sources for a center, requires a priority for drop-in use.

2. Instructional programming - The other major component of a community recreation center's operation is a full slate of programs in a variety of disciplines. The center should provide instruction for a broad based group of users in a number of program areas. The primary emphasis should be on teaching basic skills with a secondary concern for specialized or advanced instruction.

3. Special events - There should be a market for special events including kid's birthday parties, community organization functions, sports tournaments and other special activities. The development of this market will aid significantly in the generation of additional revenues and these events can often be planned for before or after regular operating hours or during slow use times of the year. Care should be taken to ensure that special events do not adversely impact the everyday operations of the center.

4. Community rentals - Another aspect of a center's operation is providing space for rentals by civic groups or organizations as well as the general public. Gyms and multi-purpose rooms can be used as a large community gathering space and can host a variety of events from seminars, parties, receptions, arts and crafts sales and other events. It is important that a well-defined rental fee package is developed and the fee schedule followed closely. Rentals should not be done at the expense of drop-in use or programming in the center.

5. Social welfare programs – An emerging area for many centers is the use of space for social service activities and programs. Special population activities, teen assistance programs, childcare and other similar uses are now common in many facilities.

MARKET SEGMENT ANALYSIS

1. Families - Within most markets an orientation towards family activities is essential. The ability to have family members of different ages participate in a variety of activities together or individually is the challenge.

2. Pre-school children - The needs of pre-school age children need to be met with a variety of activities and programs designed for their use. From drop-in childcare to specialized pre-school classes, a number of such programs can be developed. Interactive programming involving parents and toddlers can also be beneficial. It is significant that this market usually is active during the mid morning time frame, providing an important clientele to the facility during an otherwise slow period of the day. For parents with small children who wish to participate in their own activities, babysitting services are often necessary during the morning and early evening time slots.

3. School age youth - Recreation programming has tended to concentrate on this market segment and this age group should be emphasized at a center as well. This group requires a wide variety of programs and activities that are available after school or during weekend hours. Instructional programs and competitive sports programs are especially popular, as well as drop-in use of the facility.

4. Teens - A major focus of many community recreation center projects is on meeting the needs of teenagers in the community. There is a great debate among recreation providers throughout the country on how to best provide recreation programming for this age group. Some believe that dedicated teen space is required to meet their needs while others find that it is the activities and approach that is more important. Serving the needs of this age group will often require the use of many areas of the center at certain "teen" times of use.

5. Seniors - As the population of the United States and the service area continues to age, continuing to meet the needs of an older senior population will be essential. As has been noted, a more active and physically oriented senior is now demanding services to ensure their continued health. Aqua exercise, lap swimming, weight training and cardiovascular conditioning have proven to be popular with this age group. Again, the fact that this market segment will usually utilize a facility during the slower use times of early to mid-day also is appealing. Providing services for this age group should be more of a function of time than space.

6. Business/corporate - This market has a variety of needs from fitness/wellness and instruction, to recreation and social. The more amenities and services that can be offered at one location the more appeal there is to this market segment.

7. Special needs population - This is a secondary market, but with the A.D.A. requirements and the existence of a number of recreation components, the amenities will be present to develop programs for this population segment. Association with health care providers and/or other social service agencies will be necessary to fully reach this market.

8. Special interest groups - This is a market that needs to be explored to determine the use potential from a variety of groups. These could include school functions, social service organizations and adult and youth sports teams. While the needs of these groups can be great, their demands on a center can often be incompatible with the overall mission of the facility. Care must be taken to ensure that special interest groups are not allowed to dictate use patterns for the center.

CITY OF PORTSMOTH RECREATION NEEDS ASSESSMENT AND MARKET CONCLUSION

Below are listed some of the market opportunities and challenges that exist with the City of Portsmouth's indoor recreation facilities.

Facility Opportunities

- The City of Portsmouth currently has four indoor recreation facilities that are geographically spread throughout the city. This increases capital maintenance costs and the negatively impacts the cost of operation, while limiting the revenue potential at each location. Consolidation of indoor recreation facilities into a single facility will be more cost effective for the City.

- Recreation programs are not able to expand and grow due to facility limitations. Intergenerational programs as well as family based activities are difficult to offer in the current facilities. Cross marketing opportunities are also greatly inhibited.

- There is an ever increasing demand for recreation programs and services in the area. The existing City facilities cannot adequately service this need.

- The City already serves as a regional provider of recreation services and the development of a single, regionally focused recreation center will further enhance this situation. It will also allow for increased usage and revenue from non-residents as well as partnerships to possibly be formed with other communities and providers.

- The City's existing indoor recreation facilities have significant use limitations due to their layout and design and also have extensive capital improvement needs.

- Specific recreation facility concerns are:

    - Spinnaker Point Adult Recreation Center – This facility is not owned by the City making the investment of significant public capital improvement dollars unwise. The requirement for adult usage only severely limits the programming and use capabilities of the center and the lack of non-resident memberships does not allow the facility to have a regional draw. The building does have multiple recreation amenities under the same roof (pool, gym, track, and fitness) which creates a broader range of interest. The site itself is limited and does not allow for any significant facility expansion and parking will also be an issue. For the near future the facility can serve an important role in the community but should not be counted on as a long term solution to the indoor recreation needs of the area.
    - Greenleaf Recreation Center – This center is limited in size and has been altered from its original uses to function as a recreation center. With limited market appeal, and a building that is in need of significant upgrades, this center should not be seen as a viable recreation center in the near future.
    - Connie Bean Community Center – Despite its presence in the downtown area, this building is no longer in good enough physical condition to serve as a public recreation center. A significant portion of the structure is no longer useable and there is an extreme shortage of parking. The City should move its recreation operations out of this building as soon as possible.
    - Portsmouth Indoor Pool – This facility suffers from a number of factors including a need for extensive capital improvements. A stand alone, indoor, flat water (no leisure features) aquatic center will almost

never be cost effective to operate and will require large, on-going, annual subsidies. The pool currently has a limited market appeal to recreational swimmers and as a result has a relatively narrow focused user group. The City should be careful about investing significant capital dollars to ensure long term operations without first determining if a new pool can be integrated with other indoor recreation amenities (either existing or new).

- There are very limited, public based, indoor recreation facilities within the immediate Portsmouth market area.
- Combining City/school recreation/sports facilities is a viable approach to meeting the needs of both entities as long as the needs of both groups can be met without compromising one over the other.
- Despite the presence of a number of other providers in the market, the fact that a new comprehensive recreation center would primarily replace existing City facilities, would limit its impact on the local market.
- There are opportunities to develop partners with other organizations and providers to develop additional indoor recreation facilities. Possible partnerships include other communities, non-profits (New Heights, YMCA, etc.), the private sector, and hospital/wellness providers.
- A new, comprehensive indoor recreation center should be able to significantly reduce the current operational subsidy level that the City is obligated to pay to keep the existing four recreation facilities open. This assumes that the existing facilities will be closed when a new center opens. It is even possible that a new center maybe able to cover its entire cost of operation through fees generated by the facility.
- An indoor recreation center improves the quality of life in a community and often serves as an economic development engine.

Facility Challenges

- The population is older with a higher median household income level but a high cost of living. These demographic characteristics will impact the support and use of an indoor public community recreation facility.
- Finding an appropriate site to support a significant indoor recreation facility will be a challenge. A central location that allows for easy access for people throughout the Portsmouth region is essential as is a location that is large enough to provide not only for the building itself but also for adequate parking. Ideally a site that allows for both the recreation center and outdoor playing fields to be located together should be found.
- Developing a recreation center that has a strong regional focus and appeal will require partnerships from other organizations in the area. Establishing true equity partnerships will be difficult.
- Funding not only the development but the operation of an indoor recreation center will have to be clearly defined. It should be expected that the center will still operate at a financial deficit every year.
- With the financial constraints facing the City and the fact that many of the City's existing indoor recreation facilities are in need of significant capital improvements, timing for the development of any new facilities will be difficult to match up with possible closures of existing facilities.

FACILITIES PROJECT DIRECTION

Based on the information gathered from the study, the following is the recommended next steps for indoor recreation facilities in Portsmouth:

- Step 1
  - Close Connie Bean Community Center and develop a partnership with a separate agency to operate the Greenleaf Recreation Center.
  - Replace with a new gym as part of the new Portsmouth Middle School project.
  - It is recognized that the new gym is not a total replacement for the closure of the two facilities but with a direct connection to the school's gyms and other amenities there should be the ability to better utilize community resources for recreation. It should be noted that this concept of combining public recreation facilities with schools has worked successfully across the country including Medina, Ohio; Clayton, Missouri; and Clearfield, Utah.
  - Ideally the closure of the two facilities should not occur until the new middle school and community gym is completed. (Refer to the end of this section of the report for more information about the Additional Middle School Gym Option).
- Step 2
  - Determine the future role of the existing Portsmouth Indoor Pool.
    - In an effort to keep the pool open, user fees should be increased across the board and additional aquatic programming added to the center (if possible) to help reduce the current operating subsidy. However, this will only have a small impact on the overall operational shortfall.
    - An extensive capital investment should not be made in this facility unless the City is committed to keeping the pool open for at least another 10 years and is willing to continue to subsidize the operation of the pool at a high level.
    - If the pool has to be closed, the City will need to work with other local aquatic facilities (primarily the YMCA) to move as many programs and services as possible. The City may need to provide a small level of operational funding to ensure that the aquatic needs of the community are being adequately met.
    - A new stand alone indoor aquatic center should not be constructed by the City as it will never be cost effective to operate.
    - A new indoor aquatic center should be developed with other active use indoor spaces such as fitness areas, indoor track, and gym.
    - An indoor aquatic center to be operationally cost effective will need to have not only a conventional 6 to 8 lane by 25 yard pool but also a leisure pool to attract the recreational swimmer. It is significant that no such indoor pool currently exists in the Portsmouth market.

- If there is not the financial means to develop a City-owned and operated indoor aquatic center then developing a partnership with other organizations such as the YMCA to improve or add aquatic features should be studied.

o Modify the current lease with the Spinnaker Point Adult Center to allow for individuals of all ages and Non-residents to purchase annual memberships. Concerns of possible overuse can be controlled through limiting the number of non-resident memberships that are sold. The Project Team understands the City has recently taken steps to move forward with these adjustments.

o Recognize that Spinnaker Point Adult Center is not a viable long range solution to the indoor recreation needs of the community.

- The City does not own the building and has 20 years or less remaining on the current lease.
- There are a considerable number of physical improvements that are needed to the building. Extensive renovations or improvements should not be made unless the City intends to extend the lease.
- The amenities in the building are not well laid out to effectively and efficiently operate the building and deliver recreation services.
- Site limitations and parking concerns do not allow this facility to be expanded in a significant way.

- Step 3

o Develop a new multigenerational public recreation center with a strong regional focus in Portsmouth. It is recognized that this step could be well into the future (5 plus years).

o Close all other public indoor recreation facilities (Spinnaker Point and the Portsmouth Indoor Pool) but continue to operate the Pierce Island Outdoor Pool and the community gym in the middle school.

o While the new center will require substantial capital to develop, there should be a substantial operational savings from the current level of funding required to operate the existing four facilities. A new center with the right components and fee structure will be able to cover a significantly greater portion of its total cost of operation.

o Even with the development of a new comprehensive recreation center there will still be strong use of school facilities for recreation purposes.

o Since this will be a regionally based recreation center having a site that allows easy access for outlying communities will be essential. The site will have to be large enough to accommodate the planned facility, possible future phases, the required parking, and ideally outdoor playing fields.

o Possible key components in a new multigenerational recreation center could include:
- Aquatic center with competitive, leisure and therapeutic pools
- Fitness area with weight/cardio space and group exercise room(s)
- Gymnasium / Indoor track

- Community rooms that can be used by use for meetings, rentals and a variety of recreation programs.
- Youth activities area

o It is clear that this project will require partnerships. It should be expected that multiple partnerships will be necessary. Partnerships can be categorized into three possible levels.

- Primary or Equity Project Partners – These would be the main partners in the project who have the most interest, the ability to fund, and a willingness to be a part of the development and operation of the facility.
  - Seacoast Family YMCA
  - Other communities
  - Hospital or health care organization
  - Other non-profits or foundations

- Secondary Project Partners – These organizations have a direct interest in the project but not to the same level as a primary partner. Capital funding for the project is unlikely but there can be some assistance with program and service delivery.
  - Other communities and municipalities
  - Private recreation providers
  - Existing non-profits, foundations and health providers in the community

- Support Partners – These organizations support the development of a Portsmouth Recreation Center but would see limited to no direct involvement in the development or operation of the center.
  - Sports organizations
  - Community based organizations
  - Business and corporate community

o Funding the capital construction of the center will be a major hurdle. It is highly likely that multiple funding sources will need to be utilized for the project. Some basic options include:
- City taxes
- Larger contributing area
- Partnerships
- Fundraising
- Grants and endowments
- Naming rights and sponsorships

o A Formalized proportional (by user per town) cost sharing arrangements with surrounding towns.

The City of Portsmouth has provided the following chart, reflecting one possible alternative inter-local partnership which could be formalized with neighboring town Recreation Departments. In this type of arrangement, each town would pay the operating costs associated with a shared facility in proportion to their number of residents. On the following page, an inter-local pool operating cost sharing analysis was provided by the City of Portsmouth, as an example:

Inter-local - Pool Operating Cost Sharing Analysis

Municipality	NH OEP Estimate 2008	% of Total Population
Greenland	3,401	6%
New Castle	1,018	2%
Newington	787	1%
North Hampton	4,437	8%
Portsmouth	20,520	39%
Rye	5,133	10%
Stratham	7,225	14%
Kittery, Maine (MSP 2005 est.)	10,453	20%
Totals:	**52,974**	**100%**

- Finally, to begin the planning for a multigenerational public recreation center in Portsmouth a comprehensive market feasibility study will need to be conducted.

ADDITIONAL MIDDLE SCHOOL GYM OPTION

The City of Portsmouth has initiated a process whereby the new construction Middle School project could be expanded to include an additional gymnasium for youth and adult recreation and offices for the recreation staff. In light of the current economic conditions resulting in limited dollars available for recreation in the City, the creation of a recreational facility within the Middle School may be the most economically viable near term option. The Middle School option presents the following potential benefits:

- The City of Portsmouth retains some recreation services in its downtown core.
- Consolidation of Middle School and Elementary School athletics administration.
- Full utilization of new Middle School building, including during evening hours.
- Reduced operational costs (utilities and maintenance costs) assuming closure of the Connie Bean Community Center and Greenleaf Recreation Center.

There are, in addition to the benefits noted above, a few negative aspects to this proposal as well, including concerns related to parking, access and the limited type and amount of recreational programming provided. Given that this option does not address the majority of recreational programming needs lost in the event of closure of the Connie Bean Community Center, Greenleaf Recreation Center and Portsmouth Indoor Pool, it does provide significant continuing investment in indoor recreation until such time as a comprehensive recreation and aquatics facility can be developed. Therefore, the Middle School expansion option should be seriously considered as a near term solution for the recreation needs of the community, so long as the long term goal of a comprehensive recreation facility is maintained and the recommended steps and effort toward achieving that goal are followed.

Facilities – Facility Recommendations

The following section of the report is divided into three components:

1) A report on the existing City of Portsmouth Indoor Pool Facility, including general observations, a facility evaluation and basic recommendations.
2) A description of typical contemporary aquatic program components.
3) A future Indoor Facility "Case Study" description.

Facilities – City of Portsmouth Indoor Pool Evaluation

SUMMARY OF FINDINGS

The purpose of this evaluation is to review the existing conditions of the pool with regard to swimming pool structure, interior finishes, mechanical room and plumbing system conditions and recommendations for maintenance and operational programs.

The report finds that over all the indoor pool is in fair working order but has outperformed the normal operational service life of many similar facilities. Current maintenance practices have allowed the pool to continue to operate despite the age, physical and programming limits of the existing facility. The aluminum structure was lined with a PVC lining system and the interior gutter coated to add service life. The original aluminum inlet recirculation lines were replaced. In general, the facility suffers from a moderate degree of overly deferred maintenance upgrades and overly delayed capital improvement investment. Opportunities exist for reducing annual operations costs through modernization of equipment, installation of more energy efficient heating and humidification systems, and integration of sustainable design energy and operations systems. However, given that a scheduled capital investment program for annual improvements on a system by system basis was not implemented previously, it may be economically infeasible to make large scale system changes and upgrades at this time, without a commitment to long term operation for investment pay-back. It is important to note that the facility will always be economically limited, involving a significant municipal subsidy per user, due to the limited potential for expanded programming and integration with other indoor recreation programs.

The swimming pool is currently used for lap swimming and diving, swim training, learn to swim classes and fitness programmatic activities. The pool was state of art when it was initially installed, but has fallen behind in design and programming expectations, as compared to typical contemporary aquatic facilities. Staff and management efforts have been made to maintain the greatest operational efficiency and serve the evolving expectations for contemporary fitness and multi-generational programming.

COMPONENTS OBSERVED / REVIEWED

1 Pool finishes
2 Gutter system and surge area
3 Piping and recirculation system
4 Filtration systems
5 Pool water heating equipment
6 Chemical feed and control system
7 Pool Structure
8 Decks and Deck equipment
9 Review areas of potential corrosion in the metal parts of the natatorium

FACILITY EVALUATION

The intent of this aquatic facility evaluation is to determine the present condition of the lap/program pool located at the Portsmouth Indoor Swimming Pool, outline further areas of investigation and recommend repairs or other appropriate recommendations. The investigation included interviews with present operational and maintenance staff members, visual examination of the pool including the examination of the mechanical facilities, pool structure, the pool system in a full and operating condition, recirculation system, filters, chemical feed and control systems, deck areas and deck equipment. During the facility visit on June 16, 2009 with the recreational review team and various members of the Portsmouth Operational Staff we learned that there had been some concern about the pool mechanical systems and the long term natatorium structural components.

This report provides a summary of the existing aquatic systems currently located at the facility. The facility evaluation will be reported in the following format:

GENERAL OBSERVATIONS
GENERAL AQUATIC ISSUES
- Natatorium
- Lap/Program Pool

GENERAL MECHANICAL ROOM ISSUES
- Pool Mechanical Room

GENERAL OBSERVATIONS

The indoor facility consists of one competition/program pool of a 25 yard configuration. The Competition/program pool has 6 lanes in a 25 yard main course with a deep end portion with 1 diving board. The swimming pool interior finish is a PVC lining system. The pool is surrounded by a red colored coated deck which is generally in good condition, but that has some areas that do not drain properly. The pool was operating at the time of the evaluation. Review of the mechanical room illustrated that it was in moderate condition and that the maintenance staff has been trained and operates the facility using appropriate judgment for operating the sanitation and filtration systems.

The pool lining system is somewhat faded which is normal for this PVC lining type. There is a concern about the adhesion of the lining at the gutter level and especially on entry walk zones.

The translucent roof/ceiling has been covered over on the north side due to extreme leaking. There are areas that continue to leak and there will be eventual failure if the pool roof is not replaced at some time.

It also appeared that there has been some significant corrosion occurring to the entire structure. This is often observed in facilities that do not appropriately operate the building HVAC system or a facility that does not have a properly designed HVAC system.

GENERAL AQUATIC ISSUES

A. Natatorium

- The natatorium appears to be well maintained from an organizational, cleanliness and maintenance perspective.
- The deck drainage around the pool and at the diving board side of the pool does not function in a code compliant manner.
- The translucent ceiling should be repaired to provide a clean finish appearance.
- The No Diving and Depth Marker signage is not compliant with the Health Departments Regulations.
- The Dehumidification and HVAC system for the room is not to the standard in the industry.
- There is corrosion around the lintels of the natatorium windows. This should be investigated to determine if this is a transference issue or an air quality issue and repaired appropriately.

B. Lap/Program Pool

- The interior finish of the pool is a PVC lining system that was installed many years ago. This lining system has been well cared for but is beginning to show its age. There are areas where the lining system is being secured with PVC strips. I would suggest that the ling system be removed the pool structure evaluated and then a new lining system installed in the pool and gutter system.
- The diving board water depths need to be confirmed to ensure the depths are compliant with health code requirements and standards of the industry.
- The diving board hardware should be replaced due to corrosion damage if the diving board is to remain operational.

GENERAL MECHANICAL ROOM ISSUES

A. Pool Mechanical Room

- The filter/balance tank has been recoated with epoxy several times and appears to be in operational condition considering its service age. This open tank does create humidity levels in the room that will shorten the service life of the other equipment in the room. Some type of cover should be placed over this open tank to reduce the evaporative loss.
- One of the operational gauges should be replacing for clearer understanding of system operations. This would include: flow meter, influent and effluent gauges.
- To extend filter runs and energy conservation, consideration should be given to using a slurry feed system to introduce filter media into tank. This could extend filter run times.
- When the filter vessel reaches the end of its service life a regenerative media filter should be considered for spatial and conservation requirements.

CONCLUSIONS AND RECOMMENDATIONS

The Portsmouth Indoor Swimming Pool Natatorium was a leading edge design when it was constructed. This facility has been adequately maintained and some of the measures used to keep the facility operating are very ingenious. It appears that at some time there were some maintenance short falls and there seems to be several deferred maintenance items. In order to further extend the service life and provide the best user experience for any remaining operational time, the following recommendations should be followed:

1. Immediately repair or replace damaged building structural components and roofing.
2. Repair or replace PVC lining system.
3. Replace pool and whirlpool circulation systems and sanitation system.
4. Provide a supplemental UV sanitation system.
5. Replace building HVAC and distribution system.
6. Develop an annual budget for maintenance and repair.

An analysis of how long this facility will be in operation, pending near term full replacement should be conducted. Subsequently, a reasonable schedule of maintenance investment, if warranted, should be conducted and further capital investment made as appropriate, based on that analysis of operational expectations versus return on investment.

Facilities – Contemporary Aquatic Program Components

The purpose of the following section is to provide some detailed information on the various terms used when discussing contemporary aquatic amenities and components as part of comprehensive, multi-generational recreation aquatics programs and facilities. It is not necessary that a community have every type of aquatic program component, but this listing is intended to assist Portsmouth in determining the preferred and prioritized elements of a future aquatic facility.

Pool Type / Program Type Analysis

Competitive Pools

Competitive pools provide swimmers a place to practice and compete, as well as a venue for other water activities. While competitive pools must be rectangular, deeper and cooler than recreational pools, they also can accommodate fitness lap swimming, lifeguard training classes, swim instruction, water polo, synchronized swimming and countless other activities.

The competition pool would have minimum 7'-0" wide lanes for competition. It would be the regulation length for USA Swimming and high school use.

Key Features:

- Lower Use Component
- Extends Program Opportunities
- Competition
- Wellness, Fitness Orientation
- Deep Water Component
- Encourages Local Support

Programming Opportunities:

- Competition Venues
- Aerobics
- Floatables Recreation
- Lap Swimming
- Life Saving
- Diving
- Deep Water Activities
- Swim Lessons
- Facility Rentals

Competitive Pool Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)	X			
Children/Youth (5-12)			X	
Teens/Young Adults (13-25)			X	X
Adults			X	
Seniors		X		

Competitive Pool Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational		X		
Instructional			X	
Wellness/Fitness			X	
Competitive				X

Leisure / Recreational Pools

Zero depth is probably one of the most popular features of the modern swimming pool. The zero depth entry is a shallow sloped entry that enables users of all ages, abilities and comfort levels to access the pool at their own speed. It is designed with passive and active zones for a graceful entry and shallow water play, respectively. User studies have shown that 47% of guests are in water less than 36". The zero depth area has become a popular area for adults to socialize and play with their young toddlers, while keeping an eye on their older children.

Warm water is another important distinguishing element that is credited to the appeal of leisure pools for recreation, education and fitness use. Water temperatures in the range of 84 to 88 are important for user comfort in these pools and have been a significant contribution in the multi-faceted programs offered for inter-generational appeal.

People enjoy spraying, squirting, bubbling and falling water. The industry has responded with a variety of creative and highly entertaining water features. Participatory or interactive water features are those where a child or adult can actually control the water with various activation devices.

They are designed on a separate pumping system so that they can be turned off during programming and passive use times where spraying water is less desirable.

Key Features:

- Shallow Water Play
- Family/Youth Orientation
- Safe, Accessible, and Secure
- Interactive Water Play

Programming Opportunities:

- Recreational
- Water Familiarity
- Interactive Activities
- Learn to Swim

Leisure / Recreation Pool Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)				X
Children/Youth (5-12)				X
Teens/Young Adults (13-25)			X	
Adults			X	
Seniors			X	X

Leisure / Recreation Pool Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational				X
Instructional			X	
Wellness/Fitness			X	X
Competitive	X			

Waterslides

The popularity of waterslides is obvious evidence of the influence of commercial waterparks on the community aquatic center. Body and tube flume slides are major components of community center pools. Drop, bowl and speed slides offer guests an exciting experience. The quickness of the ride and fast moving lines translate into a higher capacity attraction. The slide is a colorful architectural element that adds thrill and excitement to the facility. The slide plunge pool is also an ideal location to host learn to swim and other programmatic classes when the slide is turned off.

For the younger children and toddlers, many creative kiddie slides are available. Many of them can be incorporated with a facility theme or mascot. One is only limited by their imagination.

Key Features:

- Fun and Exciting
- High Capacity Feature
- Moving Water
- Multiple Ride Options
- Multiple Experience Levels
- Plunge Pool Programming Opportunities

Waterslide Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)	X			
Children/Youth (5-12)			X	
Teens/Young Adults (13-25)				X
Adults				X
Seniors		X		

Waterslide Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational				X
Instructional			X (Plunge Pool)	
Wellness/Fitness			X (Plunge Pool)	X
Competitive		X		

Vortex / Lazy River

The vortex/lazy river feature in a facility services a multi-programming option. The vortex can be used as a recreational component during one part of the day and as a programmable amenity for exercise and rehabilitation during another part of the day.

Lazy Rivers and vortex channels can offer both passive and active areas. They can serve as an alternative to the high energy areas of the FAC where guests can enjoy a relaxing float through the winding river. The river can also incorporate exciting features with rapids, squirting, dumping and splashing water. The current channel is multipurpose, serving the youth of all ages. In addition to its history as a fun leisure component for all, the current channel today is more often used for the therapeutic benefit of water walking with or against the current.

Water walking, resistive and assistive, free suspension floating, and swimming against the current in channels and vortexes meets all of these physical fitness components. Facilities that have incorporated these amenities into their designs have been able to program their facilities to include water walking, water aerobics, fitness training and adult exercise classes into their programming offerings. It has served as an exceptional wellness and quality of life motivation in reaching segments of the community that are not usually served in the recreational aquatic center environment. It also opens up the facility for use by those who need aquatic exercise the most. Those groups are the senior population, residents with disabilities and those recovering from surgery, illness or injury.

Key Features:

- Relaxing
- High Capacity
- Moving Water
- Group or Individual Use
- Social Capacity

Programming Opportunities:

- Recreational
- Water Exercise
- Water Therapy

Vortex / Lazy River Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)	X			
Children/Youth (5-12)			X	
Teens/Young Adults (13-25)				X
Adults				X
Seniors				X

Vortex / Lazy River Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational				X
Instructional		X		
Wellness/Fitness				X
Competitive	X			

Underwater Bench Seating

Located in 3'-6" of water, the underwater bench seating area is an ideal location for users to passively enjoy being in the pool. The majority of the bench is free of spraying water so that users can relax and enjoy social time without having to get their hair wet. Depending on the time of day, this area is frequented by moms and tots, teens, and the active senior population.

Key Features:

- Relaxing
- High Capacity
- Group or Individual Use
- Social Capacity

Programming Opportunities:

- Recreational
- Water Therapy

Underwater Bench Seating Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)	X			
Children/Youth (5-12)		X		
Teens/Young Adults (13-25)			X	
Adults				X
Seniors				X

Underwater Bench Seating Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational				X
Instructional	X			
Wellness/Fitness				X
Competitive	X			

Whirlpool

The Whirlpool provides therapeutic benefits of warmth and water and serves as a social spot within the pool. The whirlpool can be used by families or just adults, depending on the temperature programmed by the facility.

Several community centers include two whirlpool spas to accommodate both groups of users. It is the ideal place to relax after a swim competition, water walking or water aerobics class. The whirlpool is equipped with therapy jets.

Key Features:

- Relaxing
- High Capacity
- Group or Individual Use
- Social Capacity

Programming Opportunities:

- Water Therapy

Whirlpool Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)	X			
Children/Youth (5-12)		X		
Teens/Young Adults (13-25)				X
Adults				X
Seniors				X

Whirlpool Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational				X
Instructional	X			
Wellness/Fitness				X
Competitive	X			

Wellness / Therapy

The therapeutic warm pool will be shallow area of the pool (and can be a separate pool) that also can be used for children's swim classes and a variety of aquatic classes. Warm water has the ability to relax muscles and decrease pain, often important during rehabilitation. Water has buoyancy and resistance that can help individuals who are physically functioning at a lower level, as well as individuals who are high level athletes.

Key Features:

- Decrease pain
- Improve and maintain fitness
- Increase joint mobility and muscle flexibility
- Improve endurance and tolerance to activity
- Improve muscle strength and tone
- Improve circulation and respiration
- Simply relax, unwind and foster social interaction leading to better mental health
- Multi-program for fitness classes and learn-to-swim instructional programs

Programming Opportunities:

- Water Therapy
- Swim Education

Therapy Pool Usage Chart

Age Use	None	Limited	Moderate	Excellent
Tots (0-5)		X		
Children/Youth (5-12)			X	
Teens/Young Adults (13-25)				X
Adults				X
Seniors				X

Therapy Pool Programming Chart

Programs	None	Limited	Moderate	Excellent
Recreational		X		
Instructional				X
Wellness/Fitness				X
Competitive	X			

Additional Support Spaces

Spectator Seating: Seating on the deck is provided in most municipal pools. Temporary athlete and spectator seating on the deck is best provided by aluminum tip and roll bleachers which may be removed or tipped up when not in use. This equipment is loose and may be added at any time rather than during initial construction. Some facilities want to provide a raised spectator gallery, which is the best location for viewing competitive

events. A separated spectator seating area is preferred by competitive users and spectators for a better event experience.

Birthday party/Meeting rooms: It is recommended adding two rooms of approximately 300 SF. Each should have hard surfaced floors for birthday parties and other activities. These rooms would need to be located in close proximity to the pool area for prime viewing of the pools.

Family Changing Rooms: In addition to locker rooms for men and women, modern recreation centers provide family dressing areas that allow families to change together as well as ADA accessible changing. During rehabilitation, spouses often assist each other during periods of temporary or permanent disability. The spaces included are corridors with oversize family lockers and changing rooms with diaper changing tables, showers, lavatories and toilets.

Facilities – Indoor Facility "Case Study"

The current economic conditions leading up to 2010 has taken its toll on a lot of communities throughout the United States. Park and Recreation departments have all felt the pinch, and cutting staff or closing facilities has been common. This is a fact of life communities have all had to deal with. However, most of the communities with newer indoor recreation facilities have not seen a dramatic drop in attendance and in fact many are seeing an increase in use. Most families are looking for activities that are close to home and reasonably priced. Community recreation centers fulfill this niche perfectly.

Looking into the future is very important during these troubled times, and taking planning steps now, to ensure that when the economy does return, the City will be poised to move quickly in improving the services that are offered to its citizens. Having a plan to implement will help in this effort.

In the long term, the project team recommends that the City consider the consolidation of many of their distributed indoor recreation venues into a central community recreation center. With the Portsmouth Indoor Pool in its last stage of life and Connie Bean and Greenleaf in a similar situation, there is a strong rationale for closing these and developing a comprehensive Community Recreation Center to replace and expand these services.

Around the country, the project team has seen these facilities spring up in many communities. There are many examples and models that have been and continue to be sustainable. A good example is the recently built facility in Erie, Colorado. The town is in a somewhat rural location north of Denver. Its roots lie in the coal mining industry. Their population in 2004 was about 11,000 compared to Portsmouth's at about 21,000. Erie has some nearby communities that can be included in their primary service area and increases the population base to about 17,000. Portsmouth has a much larger service area population with its surrounding towns that are within a 15 minute drive. With a larger tax base, Portsmouth is in a much better position to recover the operating expenses as can be seen below in the Cost Recovery / Subsidy Matrix.

The town of Erie initiated a feasibility study to determine what the community wanted to include in their facility. A survey was sent out to determine what people felt was important and needed. It also asked if the community would support a new tax to pay for this facility. The survey indicated that there was a definite need and support for a tax that would pay for the facility.

Data from the survey was the basis of the initial program of spaces that was used in the preliminary design. Using this program and a site that was donated to the town, a conceptual design was developed along with a project cost model. Using these tools, the town put the project to the voters to give them the final say in moving the project forward. As the survey suggested, there was overwhelming support at the polls for the project. Upon passage of the tax measure, the town had the architect develop the preliminary plans to the next level for construction.

The facility opened in 2008 and has been a rousing success. The local community has embraced the facility. In its first year they had more than 180,000 guest visits and registered more than 37,000 in their recreation programs. The facility is 64,000 square feet and includes a full size gymnasium, 10,000 sf aquatics area, 2 racquetball courts, an aerobics/dance room, 1/12 mile elevated running track, and a fitness and weights exercise area.

Gymnasium & Track

Aquatics

Free Weights

Cardio Atrium

Also included are three connected community meeting rooms that can be opened up into one large room. At one end is a raised stage area for lectures and simple performances. Along with these meeting rooms is a catering service kitchen that will allow catered meal services for guests renting the community rooms. Adjacent to this is an active adult lounge that caters to the 60+ crowd. The senior programs include educational programs, lunch meals, off-site trips, bridge groups, quilting, and wellness programs. The facility also includes a youth exercise/game area filled with active use gaming equipment, such as game bikes, DDR systems and the new NEOS exercise system. A short term babysitting facility is also included with an adjoining indoor and outdoor play area.

Community Rooms

Youth Exercise/Games

Babysitting

Lobby

The financial picture for the Erie Community Center continues to perform better than projected, considering the fairly small population that supports it. From preliminary results, this past year of operation shows that the Community Center has operated with a recovery rate of 56%. While Erie typically budgets all of the recreation costs in a single line, indicating revenue produced by the center at about $1,355,000 and total recreation department expenses of $2,412,000, leaving a subsidy of $1,057,000, the expenses exclusively for the center range between $1,733,000 and $1,850,000, resulting in a subsidy between $378,000 and $495,000 annually. Use of the Erie Community Center has increased in the last year in spite of the economy. The project team is seeing that most families are looking for

activities closer to home and spending less money on out of state travel. The result is that local communities are seeing higher than usual participation rates in their recreational programs.

Below is a matrix that illustrates some typical cost recovery statistics for a number of comprehensive community recreation facilities. As the chart indicates, most facilities are requiring fairly small subsidies and only Erie has lumped all of their recreation related expenses into the cost of operating the community center. The project team suspects their recovery rate would be in the 60-70% range if it were calculated in a similar fashion to the other centers.

Community Recreation Center
Cost Recovery / Subsidy Matrix

Facility Name	City / Community Size		Facility Size (SF)	Recovery Rate	Subsidy ($)	Notes
Trails Rec. Center	Colo.	40,000	78,000	95%	-$150,000	2008 data
Paul Derda Rec. Center	Colo.	43,000	85,000	93%	-$134,000	2008 data
North Boulder Rec. Center	Colo.	35,000	62,000	95%	-$50,000	2008 data
Apex Rec. Center	Colo.	115,000	156,000	111%	$357,000	2008 data
Gypsum Rec. Center	Colo.	12,000	59,000	97%	-$27,000	2010 projection
Erie Community Center	Colo.	17,000	64,000	56%	-$440,000	2008 / 2009 Avg.
Perinton Community Center	NY	44,000	60,000	71%	-$339,000	2008 data
Greater Plymouth Comm. Ctr.	PA	17,000	64,000	95%	-$104,000	2008 data
Freindship Community Center	PA	45,000	62,000	101%	$21,000	2009 data
The Center of Clayton	MO	16,000	81,000	97%	$77,000	2005 Data

Note; The first six facilities listed are located in Colorado, the next facility in western New York, two in Pennsylvania, and finally a jointly used center attached to a high school in Missouri.

The long term solution for indoor recreational services should be the consolidation of recreation facilities. It is a sound business plan for the future. By combining all of these uses into one facility, Portsmouth will not only save in personnel costs, but there are savings in utilities, savings in multiple uses of meeting spaces, and there is a synergy that happens when you gather so many community services in one place. For many, the community center becomes the iconic focus or image maker for the city.

Appendices of Collected Data

A. List of Existing Conditions Documents / Data Received
B. Public Input Session Notes
C. List of Stakeholder Meetings
D. Field User Group Questionnaire
E. Web Comments
F. Synthetic Turf Safety Data
G. Recreation Fields Public Input Presentation – December 16 Slide Presentation

A. List of Existing Conditions Documents / Data Received

A list of documents, data, printed materials, and similar background information provided to the Consultant Team as part of the Existing Conditions Scope of Work.

The City of Portsmouth initially provided a significant amount of data related to the existing facilities, fields, programming, use data, and operations data. In addition, various groups provided flyers, programming and background information on their organizations and needs, through the course of the study period. In the interest of reduced paper volume, the actual materials are not being duplicated and bound as part of the final report. Rather, following is a list of the materials provided. Copies of the actual materials are available via specific request through The City of Portsmouth.

Existing Conditions Document List	
City of Portsmouth Documents	
	City of Portsmouth, New Hampshire- Master Plan
	City of Portsmouth, New Hampshire- Master Plan- Existing Conditions and Trends
	City of Portsmouth-Planning Dep. Drainage Analysis-Multipurpose Fields
	Comparison of Select Census 2000 Data
	Economic Development for City of Portsmouth, New Hampshire
	Greenleaf Recreation Center
	Sponsored Programs
	Special Events
	Connie Bean Community Center-Current Programming
	Private Fitness Providers within 15-20 Mile Radius
	Spinnaker Point Recreation Center
	Spinnaker Point Recreation Center Membership
	Spinnaker Field House Management Agreement
	Recreation Department
	Expenses & Revenues
	2009 Recreation Data (Program Participation)
	2007 Recreation Data
	City of Portsmouth Parcel Information for Rec. Study
	Doble Property Information
	City of Portsmouth Misc. Maps- Field Yields on Various Parcels
	City of Portsmouth Misc. Maps- High School, Indoor Pool and Greenland
	Parcels_91
	Letter from State of New Hampshire-Portsmouth Middle School Construction Project
	City Owned Undeveloped Land-PULA_area
	Ball Fields Use Conditions Report 2007

Promotional Fliers	
	The Works Annual Guide-Program and Services
	The Works-Camp Guide
	Seacoast Family YMCA- Fall and Winter Program Guide
	Portsmouth Recreation Department Program Newsletter-Fall/Winter/Spring
	Portsmouth Recreation Department Program Newsletter-Summer/Spring
	Activate Portsmouth #1
	Activate Portsmouth #2
	New Hampshire Cities and Towns With Ice Rinks
	Portsmouth Judo Club Information Sheet
	Athletic Field Use in Portsmouth
	Spinnaker Point Recreation Center Brochure
Drafted Documents	
	City of Portsmouth-DPW Engineering Div.-Connie Bean Community Center Floor Plans
	City of Portsmouth Housing Authority Greenleaf Ave. Building Renovation-Proposed Floor Plan
	Portsmouth Site Plan and Location Map
	Community Swimming Pool Complex Floor Plan-Portsmouth, New Hampshire
	Kittery Comprehensive Plan Update-Public Facilities and Open Space
	Kittery Master Plan Document
	Portsmouth Department of Publuc Work- Neighborhood Associations New Hampshire
Tax Map Information	
	Tax Map 101-Urban Portsmouth, New Hampshire
	City of Portsmouth Tax Map Index
	Tax Map-TempRural Portsmouth, New Hampshire
Indoor/ Outdoor Pool Info.	
	Pierce Island Pool-(Photos, Swim Lesson Info., Schedule Info., Membership)
	Pierce Island Outdoor Pool Program
	Portsmouth Indoor Pool Program
	Indoor Pool Interior & Exterior Envelope / Building Status Report

B. Public Input Session Notes

Following are the notes taken during the June 16, 2009 public input session.

Following are the Meeting Notes, arranged by topic, taken during the June 16, 2009 Community Meeting:

INDOOR ACTIVITIES

- Speaker represented Judo Club– An existing program, looking to grow, require more space (+/- 1,200sf)
- Speaker suggested investigation of renovating and improving the Connie Bean Facility
- Speaker suggested review of Ice hockey – Portsmouth is the largest city in NH without a facility
- Representative of Aerobics Program – Currently operating in a poor quality facility (no heat/energy inefficient)
  Speaker thought Greenleaf Center was in a poor location & Spinnaker Pt. suffered for a lack of parking
- Speaker strongly suggested a need exists for a comprehensive Comm. Rec. facility with both wet and dry activities on a regional size and scale.
- Speaker suggested the team look to consolidate the existing facilities
- Speaker looking for fitness equipment, gym, track, child care, indoor play, community meeting space, good parking at consolidated facility.
- Speaker represented Squash group – looking for Squash courts – nearest court at Exeter Academy
- Speaker suggested new facility be locate as close to downtown as possible, shared-use parking available – make the most of what Portsmouth already has.

AQUATICS

- Speaker noted that the indoor pool is important for the community
- Suggestion that pool used for all ages and seniors currently
- Speaker requested both a competition pool and a recreation pool with different temperature waters
- Suggestion to consolidate city's pools – more efficient cost
- Kittery City Counsel rep would like to promote combined facility – Kittery interested in regional facility
- Speaker suggested a multipurpose facility – team use with weight training – promote competition
- Speaker advocated for multipurpose pool – recreation water and competition lanes

FIELDS/OUTDOOR

- Recreational Soccer League – Additional fields required
- Lacrosse - noted lack of fields and programs are growing, high turnout, but not all are able to participate
- Marching Band – make sure space is available for their use

- Baseball - Need at least 1 additional field
- Speaker requested the effort preserve open space / passive use of our natural spaces. Do not develop ball field on the open spaces.
- Seacoast Lacrosse – Only one field is available in Portsmouth
- Football – only access after high school is done. Need more fields for youth
- Planning needs to be sustainable – Reserve thought for passive uses in natural areas
- Co-ed Softball – 200 players/50% residency requirement, turned down teams due to lack of field space, due to loss of middle school field will be worse
- Soccer – 50 players over the summer – too many players on only one field. Can't grow the teams

INDOOR

- Speaker representing Basketball League – Court access is very limited for practice
- Speaker noted Connie Bean is well loved and used
- Speaker noted Downtown location is important
- Speaker stated a need for indoor skating / hockey, at least 1 rink
- Noted if Hockey Rink were centrally located it would be good for tournaments
- Speaker suggested building vertically – over parking – fields over parking decks
- Speaker urged community to build anything very well, durable and sustainable construction
- Speaker reiterated need for a downtown location – improve transportation to overcome parking challenge
- Suggestion to assess existing facilities and focus on renovation
- Speaker suggested construction of a world class field house over parking and indoor pool at the high school
- Speaker noted recreation facilities have a value as a community asset – attract new residents, wellness is important
- Speaker suggested a conversion of the middle school for replacement of Connie Bean and combine City Hall and sell City Hall land to help pay for new facilities

FIELDS/OUTDOOR

- Speaker advocated for Skateboarding – need to upgrade to a great street course
- Speaker noted lost field at Middle School needs to be replaced – understands that land is an issue
- Advocate for Tennis – 6 public courts, 4 at the high school (need 6 for tournaments), middle school courts are substandard. Think about spectator/coaching friendly – terraced courts.
- Speaker noted current co-ed Softball teams are good for networking – not enough fields.
- Speaker recommended a new Skateboard park – use area at middle school fields that is not being used
- Speaker advocated for use of artificial turf on fields
- Speaker noted more bike lanes in the city needed for safety
- Speaker discussed Softball needs – Only one field in Portsmouth and fields around the state are much better. Requested that middle school field not be taken away.
- Speaker suggested consultants perform a survey of sports groups and get growth information

- Speaker noted Lacrosse is the fastest growing sport in the nation – no fields available
- Speaker for Fall baseball – no facilities – don't build near wetlands
- Speaker suggested new artificial turf fields – as many as possible – multi-use – open space at Pease
- Speaker suggested that recreation programs generally lose money but provide valuable service – health benefits – utilize what we have
- Advocate for a new or better Skate park – need better facility
- Speaker for Football/Lacrosse – Practice fields are inadequate/competition with other sports
  Football – 220 to 260 players, 70-90 varsity players
- Speaker stated Portsmouth needs a public/private partnerships to acquire and develop new fields
- Speaker advocated for assessment of existing fields for utilization. Renovate them in the short term as a top priority.

Following are the Meeting Notes, arranged by order of speaker, taken during the June 16, 2009 Community Meeting:

1. Judo – Grow Program, 1,200sf with office space
2. Recreation soccer league on Wednesday nights 10-20 players – have no real place to play, dedicated soccer not available
3. Indoor pool important
4. Judo club member, local access for kids to hang out and have fun
5. No ice rink – Durham, Exeter...not in Portsmouth
6. Lacrosse – not dedicated, started 12-20 kids, youth, every sport is growing – fields are lacking due to success of teams - at High School level, 5 teams
7. Aquafitness – 55 to 88 years old, please continue programs
8. Portsmouth Band – Damage to fields – need field space
9. Kids aerobics – too much overlap – bad conditions at Greenleaf, too much sharing – judo, aerobics 100-150 kids – location now is bad – facility is crappy
10. Parking is a problem everywhere
11. Activate Portsmouth wants new combined Aquatic and Recreation Center
12. Consolidation of wet and not wet – aquatic center's not just a pool
13. Advocate for a Green facility
14. Babe Ruth – 220 kids – one field available 100% capacity – regulation – program is growing
15. Basketball league at Connie Bean
16. Multiple pools for rec. and competition
17. Pool not big enough for all uses – need compromise, dry side activities – Add daycare
18. Creative dancing solutions
19. Squash courts – needed in Portsmouth – 75 people in Seacoast Squash Association
20. Locate in downtown area for synergy – no dedicated parking
21. Fields built poorly
22. Land – ball fields – not built on conservation land – inadequate trails - find the right land for active uses – Conservation Commission Study of existing parcels – marry these two studies together
23. BB – middle school: 45 minutes of practice time – too short
24. Seacoast lacrosse – 200 kids – used other town fields
25. Youth football – uses high school fields – not enough access to fields
26. Open spaces – sustainability – passive recreation – trails – education nature deficit – unorganized sports – missing an opportunity
27. Co-ed softball league (250 players) 50% residency rule now at 57% residence – 80-90 res turned away due to lack of fields – willing to work on fields – subcommittee of league directors to sort out the issues – good networking
28. Need an indoor facility the most - in central location
29. "New Heights" not used too much – not enough sharing BB fields
30. "New Heights" lighted field not used too much
31. Skateboard as rec. facility – open park – shared facility
32. Limited resources – look at downtown first – multiple uses

33. Tennis – leverage – High school requires minimum 6 courts, maybe turn ex. 6 into 10 courts – south mill are substandard only for practice. Consider junior courts, lighting, bathrooms, 3 private facilities indoors
34. Low costs are good for membership
35. Kittery town council – multi-town facility – aquatic center
36. Aquatics – multi-purpose, multi-use facility – using secure facility – swim team
37. Tradeport – softball league at Pease – 4 teams – one field 200 companies – 5,000 employees – employee benefits – field is too small – 2 nights now, could go to 4. Employees spend money
38. Skateboard park at Leary Field – shoehorn – move multi-fields at stump dump, at Comm. Campus, at Pease, more bike lanes on road, no rinks – 2 sheets of ice, multi purpose aquatic facility and rink
39. Softball commish for state – Portsmouth has one regulation field, no replacement for middle school field
40. Ex. Softball field at high school – too wet
41. Leagues maintain the field (middle) and city taking two fields away
42. Survey to all the associations for trends and usage
43. Lacrosse – not enough space for practice – not in Portsmouth
44. Look at national trends for growth and decline of recreation and sports
45. Hockey outside of town – good revenue generations
46. Soccer – not an off season program, centrally located complex of fields – 50 players, summer, Greenland
47. No “fan” baseball facility – go to other towns
48. Lighting isn’t too good at Leary
49. Artificial turf fields – grass too limited for time - committee needs to be bound for land
50. Use PEASE land
51. Go vertical on parking decks
52. Partnership with others [Seacoast]
53. Build good stuff
54. Rec. programs lose money – not make money
55. Look at demographics – go with facility with overlaps, biggest bang for the buck – pools affect many people
56. Look at non-car transportation
57. Skate park to tough to access as is – need a place to go
58. Youth football – one regulation field for region [SAU 00-51], 1- 8 grades = 260 players – all games at high school field. 20 – 90 players, fields are all shaved – overused – no rest
59. Identify, recognize, pay for and develop fields in town
60. Evaluate short term solutions – evaluate all existing Facilities cheaper to renovated even schools first
61. Renovate all the fields first – drainage poor, grass is sparse at best – top priority
62. Field house – parking, multi-use, field on top, pool – giant buildings
63. Quality of life issues, broader context, competitive edge for growth – attract business – reach out to seniors, broaden study
64. Connie Bean – package city hall land to pay for $

Community Input Comments

Judo Club
- 50 Years Old
- Non-Profit
- Serve adults and Youth
- Inexpensive--$12 / Month
- Need a room—1,200 sq. ft.—High Ceilings

Recreation Soccer Fields
- Need Place for Adult Soccer—15-20 players now

Need for an Ice Rink
- None around the area
- Largest City in New Hampshire without a Rink

Need for Lacrosse Fields
- 200 Kids play now
- No regulation sized field in Portsmouth
- 5 High School teams

Indoor Pool
- Need for a new pool

Place for Band Practice

Place for Youth Fitness
- Use Greenleaf now

Cleanliness is a problem at many city facilities
Parking is an issue at almost all facilities

Wants a Public Center like Colorado has
- Avon is an example
- Wants consolidation of existing facilities
- Wants a center with all indoor spaces in one location

Little League Baseball
- 220 Kids
- Need one other regulation diamond

Seacoast Basketball Tournament
- March / April
- Uses Connie Bean now will need another facility if this closes

Squash Court's
- 75 People in Sea coast Squash Club
- Need courts in Portsmouth

Need a new facility downtown

Concern for Land Preservation
- This needs to be a priority
- Need passive use areas
- Limited amount of open space in Portsmouth
- Not ballfields

6th grade basketball only gets 45 minutes of practice a week and one game

Seacoast Lacrosse
- 200 Kids
- Have to use many fields outside of Portsmouth

Football
- 200+ Kids
- Lack of fields

Sustainability is Critical
- Need passive use areas
- There is a nature deficit for children
- Need more than fields

Adult Softball
- Co Ed
- 11 Teams
- 250 Players
- Had to turn down 4 teams—no field space
- Want a field committee to help with scheduling & field development

We need an indoor facility the most - a group that wants to keep Connie Bean

Need to multi-use more fields

Need a better Skateboard Park
- Appeal to Urban street skaters

A new facility needs to be centrally located—Downtown

Tennis Courts
- High School needs 6 courts
- City has 10 courts now
- The downtown courts are in poor shape
- Need to be lighted and have restrooms

People want low cost programs & facilities—need consolidation

Kittery Town Council
- Wants to partner on an Aquatic Center & other indoor amenities

Swim Team
- 130 winter
- 75 Summer
- Use of other pools as well

Trade Board
- Started a Corporate League
- Have 4 Teams—could go larger
- No field time
- Recreation Facilities are important for Corporations

Need Artificial Turf Fields

Need Bike Path's
- Used for transportation

Non-Residents should pay more

ASA- Director-Youth
- Portsmouth has only one field

Concern on loss of Alumni Field

Need to do a survey on Youth Sports Groups

Lacrosse
- Has to use fields in other communities
- Lacrosse is the fastest growing sport in New Hampshire and the US

Hockey
- 30 – 40 Kids play from Portsmouth

Youth Soccer
- Needs a centrally located field complex

Many of the existing fields have poor lighting

Need to work on a Regional Field Concept with other communities

Need as many Artificial Turf Fields as possible

Need to build parking garages & elevated fields

Partnership with the Community Campus and other non-profits

Build something that will last

Need to look at the demographics of the community - We cannot satisfy all recreation needs

Not realistic to have recreation facilities downtown

Only 1 regulation Football Field in the whole School District

- 220 – 260 Football players
- 70 – 90 High School Football players
- Football must share fields with many other sports—Baseball does not

Need to partner for new fields

Not enough fields for Baseball

Wants something done now

- Renovate rather than build new fields
- Use Elementary School fields

The best fields are taken care of by the different sports organizations

Consider a Field House

Recreation is a quality of life issue

- Need to look at keeping Portsmouth at a competitive advantage

Need to serve seniors, businesses, etc.

C. List of Stakeholder Meetings

The Consultant team worked closely with City staff and the Recreation Board to identify stakeholders and to solicit their input for this study.

Following is a list of Stakeholder Meetings conducted, as one part of the Public Input Process:

Kick-off Meeting with City Staff - Including representatives from: School, Public Works, and Recreation Departments.

Stakeholder Meetings:

- Town of Kittery, ME
- Towns of Greenland, Rye, New Castle & Newington Recreation Department
- Seacoast YMCA
- Activate Portsmouth
- Recreation Department part-time staff, instructors, and volunteers.
- Recreation Board (with invitees from School Board)
- Athletic Field User Groups – including:
  - Tenant's Association at Pease
  - Portsmouth Women's Softball League
  - Adult Softball
  - Portsmouth City Soccer Club
  - Portsmouth Coed Softball
  - New Hampshire Sports & Social Club
  - Portsmouth Little League
  - Portsmouth Youth Football
  - Seacoast Lacrosse
- Pease Development Authority*
- Wentworth Connections (Disabled Adults and Seniors)*
- New Heights Adventures for Teens*
- Foundation for Seacoast Health*
- Recreation Department Aquatics Staff

* Stakeholder Meetings conducted by City of Portsmouth Staff.

D. Field User Group Questionnaire

Following is a copy of the questionnaire provided to the Field User Groups identified to the Consultant Team by the City of Portsmouth and invited to a stakeholder interview on September 2, 2009. Combined responses to the questionnaire are included in the report section titled "Fields - Existing Conditions / Need Assessment".

City of Portsmouth Recreation Department

Athletic Field User Group Questionnaire

The Architectural Team, Inc. is leading a team of consultants that have been retained by the City of Portsmouth to complete a comprehensive recreational needs study. A major aspect of this study is developing an assessment of the existing athletic fields, their current use and potential future use. As part of this study, we would like you to answer the following questions regarding your organization and its use of athletic fields in the area. Your thorough responses to this questionnaire would be much appreciated. Please bring your completed questionnaire to the Athletic Field User Group meeting on September 2, 2009 at 6:30 p.m. in Conference Room A.

1. What is the name of the organization you represent?

_____

a. Organization Leadership Contact Information

Name: _____

Street Address: _____

City, Town: _____

Phone: _____

Email: _____

b. What sports/activities do you support/provide?

Sport 1: _____
Participants:

- ☐ Boys
- ☐ Girls
- ☐ Co-ed
- ☐ Adult

Sport 2 (If Applicable): _____
Participants:

- ☐ Boys
- ☐ Girls
- ☐ Co-ed
- ☐ Adult

c. Please describe your organization's schedule.

i. Seasonal beginning dates/ending dates: _____

ii. Number of weeks: _____

Number of games: _____

iii. Number of practices per week: _____

iv. Tournaments or other events: _____
(i.e. Friday afternoons, Weekend Mornings, etc.)

2. What is the size and make-up of your organization?
   a. Current year (2009)
      # of Teams:_____
      # of Players / Participants:_____
      Age Range:_____

   b. Previous 3-5 years (2003-2008)
      Average # of Teams:_____
      Average # of Players / Participants:_____
      Average Age Range:_____

   c. Future 2-3 years (2010-2012)
      Anticipated # of Teams:_____
      Anticipated # of Players / Participants:_____
      Anticipated Age Range:_____

      Where (in what age groups, etc.) do you expect the greatest growth?

      _____

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3. What fields in Portsmouth do you currently utilize for your organization?

    a. Fields (name of park or location): _____

    _____

    b. Days/times (Practices): _____
    (Provide Separate sheet / schedule if necessary / possible)

    c. Days/times (Games): _____
    (Provide Separate sheet / schedule if necessary / possible)

4. What other fields do you currently utilize for your organization?

    a. Community/owner:_____

    b. Fields (name of park or location): _____

    _____

    c. Size of fields (regulation / non-regulation): _____

    d. Lit, Unlit: _____

    e. Days/times: (Or note on attached schedule): _____

    _____

    f. Fees for use (amount) if any: _____

5. What are the specific needs of your organization that are not currently being met by existing facilities?
    a. Practice (time, days of the week, season)

    _____

    _____

    b. Tournaments, etc. (number, size, etc.)

    _____

    _____

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c. Support facilities (restrooms, spectator seating etc.)

_____

_____

6. Do you believe that members of your organization would be willing to attend practices or games in a town adjacent to the City of Portsmouth? If yes, please provide detail (i.e. to what extent, how far away, what percentage of games, etc.)

_____

_____

_____

7. Please insert the name of the Athletic Field your organization uses most often:

_____

A. Please describe three things you like about this field space:

1. _____

2. _____

3. _____

B. Please describe three things you dislike about this field space:

1. _____

2. _____

3. _____

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8. Describe any other issues or concerns regarding athletic field needs of your organization:

_____

_____

_____

_____

_____

_____

_____

_____

_____

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E. Web Comments

As part of the Public Input portion of the study, the City of Portsmouth established a portal on the city website, using a hyperlink on the City's main page, which allowed anyone in the community to provide written comments, ideas and input via electronic comment form. Following is the full text of comments received, with the identity and e-mail address of the sender eliminated for protection of the individual's privacy. The comments are generally provided in the order in which they were received by the City of Portsmouth. All comments are from Portsmouth residents, unless noted otherwise in parentheses at the end of the comment.

June 2009

Comment: We need to continue to provide sports and fitness opportunities for both youth and adults. Focusing on life-long sports that can be enjoyed by people for years. The more recreational opportunities the people of our community have, then the more apt they are to leave their homes and be active. 2. More baseball/softball fields. More open multi-use fields (for ultimate frisbee, kickball, football, etc.). These new fields need to provide parking for people to access them too. There are parks in the city that cannot/are not being used because of access and parking problems. A disc-golf course would be used more than the skateboard park is too. 3. More gyms that can be used by non-school groups. We provide adult sports leagues and we pay to rent our fields and facilities however due to the lack of fields/gyms we are forced to go outside of town sometimes. That's a loss of revenue for the city.

I am looking forward to attending the other sessions on this, as I am busy the night of this opening session. I work in the recreation field and am a huge proponent of working to get more field/gym/recreational space for the residents of this city.

Comment: I believe Spinnaker Point provides a much-needed facility for adult fitness and should be maintained as such.

Comment: I think Portsmouth does a great job with recreation. The one glaring fault, I think, are the summer pool hours. We love to use the outdoor pool, but it seems as if it's never open, or never for long enough. Could we have a goal to have the pool open every day, or nearly every day, from 8 or 9 a.m. until 8 or 9 p.m.?

Comment: I am concerned that Portsmouth taxpayers will be asked to provide recreational facilities for residents of other communities. Any survey of recreational needs should identify what percentage of current facility users actually reside in Portsmouth. My suspicion is that, particularly for the adult leagues, residents from other towns participate without any restrictions or funding support from their respective communities. It should not be up to Portsmouth taxpayers to bear this burden.

A regional approach to recreation needs would be a step in the right direction. For example, a regional adult softball facility (where the players all drive to the field, as they do now) might free up downtown fields for use for children. It may also be cheaper to acquire land for these fields. Portsmouth should take the lead on this approach.

With respect to playing fields, the number of needed fields should address the needs of our residents. Often I see published comparisons that note Rochester (for example) has more fields; why shouldn't they - they have more residents.

For outdoor facilities, I think we may need a better, more centrally located skateboard facility. We also need more multi-use fields, or modifications to existing fields to make them less sport specific. The lighting at the ball field downtown needs to be improved. More small facilities are needed in neighborhoods.

It is interesting that the questions for this survey assume that more facilities are needed. Why not ask which facilities can be eliminated?
We do not need an additional pool (ourcurrent outdoor pool may need modifications). We don't need to expand indoor fitness facilities. We don't need more tennis courts.

Comment: I think that the city of Portsmouth should begin talks with the Arch Diocese of Manchester to see if the city can acquire St. Catherine's Church site at 845 Woodbury Avenue for future recreational fields. I think the open space and rec. fields would enhance the neighborhood and meet the city's need for new playing fields. I feel that this is a once in a lifetime opportunity to acquire a large undeveloped site in Portsmouth.

Comment: I think that the rec department should study the impact of raising the very low existing non-resident fee for the outside pool in an effort to increase revenues, improve the availability for residents, and reduce crowds.

Comment: Recreation is critical to youth and adults to promote a healthy, active lifestyle and longevity of the community. I would like to see more hours and dedication to the outdoor pool facility, which is an incredible asset and wonderful, just expand its offerings to the community (e.g. mornings, evenings) to those who wish to excercise in the morning or evening. Add yoga classes, pool classes.

Comment: I am a 55 year old who has lived here and owned a home in the little harbor area since 1985. My wish for recreation is more walkability and bike-abilithy than we have now.
I would like to see walking and biking access considered a recreational activity as it is a primary one for many. A bikepath out Sagamore to Odiorne for instance. Improved bike/walking out to newcastle. Connectivity between bikes/sidewalk areas.

On Lincoln where i live and all around this neighborhood we have an interesting challenge with parking and through traffic and then walking. (I realize that lincoln is on for major redo when the sewer lines go in) What would happen if there was a bikepath lane designated down one side of lincoln from Middle to the Hill? Maybe seasonal from May to Novemeber? During this time one side of the street would have give up thier street parking. Right now most times cars have to wait to pass through as only one car can go at a time. And on the other hand this is slowing traffic quite nicely.

So overall my comment is furthering every aspect of biking and walking as recreational, sustainable development, and enhancing Portsmouth. Look to Portland Oregon for ideas by the way as that city has made real commitment and is a very desirable city for business because of it.

Comment: I would love to go to the indoor pool more often but because of the seating in the shower/dressing room, I have difficulty drying & dressing my feet. Not so bad in warm weather, but really chilly in cool weather. The facilities currently are great but I would ask 1 request...would it be possible to double the width of a seat for at least one stall so I could bring my foot up and dry my feet and dress them with socks? Just adding another identical board to the current seat to double the width would be great. I've asked about it at the pool but it seems to not be possible, therefore I don't go ...and it's a nice pool with nice people.

Comment: here's my input: Why replace the Spinnaker Point roof when the only bad spot is over the front door. REpair that and save a bundle. Why is the running track fan on? It empties all of the building's air conditioning into the sky above the center all summer, causing the compressors to run constantly. Why not put motion sensors on the basket ball court lights and the gym? Not interested in saving money. Why not rewire the lobby lights? Why do the tennis court lights stay on all winter, all night? Why do we waste so much energy; everyone sees the downtown Christmas lights burning all night in February. Who's in charge, PSNH? (I'll be away during your meeting)

Comment: Portsmouth is unique in having a rich waterfront history. It should have a town sponsored boating and sailing program to give members of the community the ability to participate in the future of water sports.

Portsmouth should provide restricted access to sailing instruction, small sail boats, and a qualification process for use of the boats.

Comment: I think the city does a great job providing a variety of activities. I would like to see the ability to pay quarterly (instead of one lump sum payment) for indoor pool and Spinnaker Point memberships.

Comment: I was part of the Merrimack (NH) recreation committee that did a similiar study a number of years ago. What I found helpful was we projected population, determined available land and buildings, projected usage(# of soocer players, # of basketball players, etc.) to come up with a quideline for what was needed. We also as I remember created both a plan for active and passive recreation needs.

Comment: I would like to see a Portsmouth multi-field complex. We need flat fields for soccer, lacrosse, football. I think we're set for pools and tennis.

It would be nice to see the Connie Bean Center moved to a location that is newer. Many people, adults and children use that facility.

Comment: City recreational infrastructure is excellent but segmented. This issue probably drove this survey. Recreational department does an excellent job operationally, especially keeping facilities clean and well maintained. The school department should give up doing this and let the rec staff take it over. Indoor pool at high school is too cold for young child use. Let's either do it right or not do it at all. The YMCA has offered an excellent alternative. Outdoor pool is a first class operation. Form strategic and possible operational partnerships with YMCA, Family First campus, Urban Forestry Center, etc. to avoid redundancy and create more cohesive service to community. Add kayak racks at key locations throughout city and charge a seasonal fee for personal kayak storage. Organize group outings. Consolidate infrastructure to reduce operational cost, improve point service, and free up cash for other programs. Use the fields and other lawn spaces currently available as they are clearly underutilized most of the day. Natural areas in the city should be left alone or utilized in their nature state (woods runs, mountain biking, etc.). Natural areas in city are rare and typically polluted in some manner and do not need further stress. Further degrading nature areas will degrade quality of life and property values. Want organized bike paths such as along railroad tracks. These features enhance property value, decrease auto congestion, increase quality of life, and can be a regional tourist attraction. Why can't the rec department take this on? Decrease emphasis on baseball fields and improve existing fields to handle a more diverse array of sports.

Comment: Portsmouth has a lot of fields, but unfortunately they are not flexible and many are designed for one use (e.g. baseball.) I would like to see all fields be multi-use so we have higher utilization throughout the year. The Leary Field area has very limited use outside of baseball season; same is true for the baseball field on Islington Street.
The city maintains many separate structures for different segments of the population. At a minimum, the operations at Spinnaker, Connie Bean, and Greenleaf should be consolidated. The city should focus on inter-generation facilities, where we can adult and child programming running concurrently. This is should provide financial efficiencies, higher utilization of the investment, and enhance the sense of community. Focus tends to be on fields/courts for competitive sports, which few in the population actually take part-in. Walking, biking, or mountain biking trails in the city-owned land would be a great benefit to the city. The recreation department does a great job maintaining their facilities, better than any other department in the city. I do not support putting any new structures our playing fields on undeveloped land. We have so little of it within the city limits, and work on these lands should only be to improve access.

Comment: I think Portsmouth needs to put a emphasis on preserving areas for hiking, mtn biking, cross country running and skiing and other activities that get ignored in the usual plans. Organized field sports

are not the only sports that people enjoy. These natural recreation areas require less City capital and maintenance and are better for the environment.

Comment: The Portsmouth Rec Department has always done a great job delivering programs to K-6 residents in the area. I am not familiar with adult programs. The fields, pool and recreation facilities are really pretty good right now. THE BEST THING PORTSMOUTH CAN DO FOR THE RECREATIONAL COMMUNITY IS TO KEEP THE OPEN SPACES WE HAVE LEFT instead of continuing to develop our limited green space. I support loosening the restrictions on skateboarding, bicycling, etc. on city streets. Open up as many things as possible to teenagers and don't prosecute them for minor infringements of public space they may conduct.
I do NOT support expensive high tech playing fields, health clubs or facilities that are monuments to town leaders. We have wonderful, satisfactory facilities that more than meet the needs of our residents. Keep up the good work you are doing now.

Comment: I think we need to look at natural recreation opportunities, not just fields, facilities. We need to stick with our sustainability principles and protect natural areas and open these to rec. uses.

Comment: Kids desperately need a place to go. The Greenleaf skate park is inaccesible by foot to the kids who need it most. The Connie Bean is inadequate with only one court that is booked all the time. A centrally located skate park and a new indoor exercise facility that adults and kids could take advantage of would be ideal.

Comment: I'd like to support the very valuable existence of the Portsmouth Rec Dept, as it pertains to enabling all youth to have an opportunity to participate in sports. One of the most beneficial aspects to Rec sports in our city is the ability for kids to interact with and meet kids they might not normally have associated with or had the chance to meet. Whether it be from a different Portsmouth neighborhood or from within the same classroom where they did not previously interact, Rec kids are exposed to others in a team-focused environment, leading them to bond in some way. This can only promote a greater sense of community and understanding between them (and their parent's too) ... which I have seen happen!

As for location, and with regard to the downtown Connie Bean Center, I happen to have taken personal stock during all the years my children have participated at activities there (even as young as the toddler class, and early on, the non-Rec Kinder Music classes, right up through their teens) and I have a very strong feeling about this. It comes also from my participation on the Portsmouth Listens- Master Plan Study Circle. It is a sense of community. The Connie Bean is a place where many Portsmouth residents go for their children's sporting events ..... and never go to (set foot in) any other downtown destination! There has become such a disparity in what downtown Portsmouth is, that many of those who live and work and pay taxes in Portsmouth (or they live in rental places) don't see the downtown area as a place

for them. They don't shop much in the boutique stores or eat at the upscale restaurants. They may not know that there are alternatives in downtown.

I love the idea that a downtown rec facility brings everyone to town. It says, This Is Your City. I love that our kids can become comfortable and familiar with their downtown throughout their growing years. I like that business people (many of whom may be local parents themselves) get to know our kids and their parents by having them intermingled in the downtown area.

When it comes to redeveloping the McIntyre Building, I strongly believe it ought to incorporate some kind of recreational space, just as the Connie Bean has. (Or to relocate the CB there?) Think of it as part sports arena or community center! Right downtown (with a really big parking garage underneath so that locals aren't forever getting parking tickets because their kid's game went into overtime!! Heck, how about having free parking for those attending their own rec event!)? Might these local families tend to stay in town and find a reasonable bite to eat, after a game or a community event at this beautiful new facility in their city? Let it have outdoor space... on one side? on the roof? There could even be smaller gaming activities there!? Who knows...

I would love for the city to think of more ways to bring all of us into the downtown area on a regular basis. Accessibility of a community center/sports center, centrally-located downtown, while I realize might not necessarily enhance the tourist aspect of Portsmouth, would do wonders for the Community Building aspect. Especially with our society's new "green" focus on folks living and working and playing within a short geographical distance, as well as the value of having more opportunities for our city's population to gather in diverse ways, to know each other better, to develop a stronger commitment to one another, to patronize local business people even more than is being done... and to role model to our kids that we are open to others, to knowing those who live amongst us better, to laughing along the sidelines or in the bleachers with them.. all the better for all of us!

Comment: Squash courts would be wonderful. Unh has only 1 and many of our friends drive from Portsmouth or Maine. Also many of us work in Portsmouth and would love the option of a daytime game. Thanks so much for asking for input.
(City/Town: Durham)

Comment: We desperately need some squash courts. There is a sizeable contingent in town that plays squash, but has nowhere to go. The sport is gaining in popularity, is a terrific workout, and fosters community. A minimum of 4 squash courts would go a long long way.
(City/Town: none)

Comment: What is missing in Portsmouth: International squash court, glass backed, possibly two or three of. What else is missing in Portsmouth: Sunshine all year hence the need for squash.
(City/Town: Exeter)

Comment: I'd like to provide input on the request for information on community recreational needs in connection with ongoing study of the issue: I would strongly recommend squash courts. Great game, low maintenance and many squash players in Portsmouth and Seacoast.
(City/Town: York)

Comment: Squash courts, great all around activity, great alternative for kids, enjoyable life long sport.
(City/Town: Stratham)

Comment: It is important to consider the climate options: specifically, that we have a lengthly winter period where outdoor courts are not usable. Options that would benefit everyone (youth/adults): Squash Courts (small indoor footprint relative to tennis); Basketball (indoor): offers a good people/space ratio; Ice skating rink; Outdoor level playing fields (soccer, lacrosse). During fair weather months, field space is difficult to come by.

Comment: Our family has used the facilities at the outdoor pool, the indoor pool, Spinnaker Point, and various youth sports activities. The City does a great job with its recreation programs and facilities. I believe in the old saying "if its not broke, don't fix it." There is nothing wrong with what the City does with recreation, so leave it alone. Some things need upkeep, like the roof on the indoor pool, but that doesn't mean that you need to build a whole new building.

The proposal to put everything in one area seems like nonsense, as there is no such space available. The complaints about not having enough field space should be disregarded. Most people in the City do not want to spend money on unnecessary things right now. The economy is in such bad shape, we should not be spending money on new fields, astro-turf etc.
The City should be seeking donations from residents who want to give their land to the City, before building any new fields or facilities. Perhaps a new skate board park could be built on donated land such as the Hyder property across from the hotel on Woodbury. I think you should add a fire escape to the Connie Bean center and keep that facility. By the way, I wouldn't have spent the amount of money that you are paying to examine what facilities/programs we should have. Just like I wouldn't have spent $200,000 or womething like that to have a study on what to do with the bridges.

Comment: Portsmouth is our city of course, and there are lots of activities and places we look to there and use nearly every day. I'm a squash player, and would encourage you to consider including a court or two in your plans. There is no "international" court in the area- the closest is Exeter Academy. Gold's Gym has one court, but it's not international.
(City/Town: Kittery)

Comment: As the mother of a 2 & 1/2-year-old, I would love to see an indoor zero depth pool. It would be terrific to have a place to bring my daughter to run around and swim when the weather doesn't allow for us to do these things outside. I would like to see a gym for kids, where they can run around and play with balls or perhaps take gymnastics classes. It would also be wonderful to have daycare services at the Rec Center so that full-time caregivers have an opportunity to get some exercise.

Comment: Re Indoor Facilities: Exisitng facilities need to be adapted to be as accessable as possible to our aging population. Active elderly will remain independent longer and make fewer demands on the city's social services.

Swimming is an excercise that is easy on aging joints BUT the pool at Spinnaker Point is not accassable for people with mobility impairments. It takes going up and down many stairs to get to the pool.

There is an elevator but it opens into the gym where the most mobile athletes play basketball. There are handicapped accessable bathrooms in the gym area but not in the pool area.

Creating a short covered walkway from the gym into the ground floor of the main building close to the pool locker rooms would give mobility challenged residents easy access to the handicapped bathrooms and the pool.

A swipe card entry system for the side door or a phone to the front desk to allow members to be buzzed in would maintain security and allow swimmers to park in the handicapped spots near that door.

I would strongly advocate that any indoor recreational facility include two Squash courts. In 2003, Forbes rated squash as the number one healthiest sport to play. Squash provides an excellent cardiovascular workout. In one hour of squash, a player may expend approximately 600 to 1000 calories which is significantly more than most other sports and over 70% more than either general tennis or racquetball. Squash now has a universal appeal, and there are courts in 154 countries in the world

Personally, I played Squash in college and was a nationally ranked amateur in my twenties. The Seacoast region does not have any place for squash players to join. There is one court at UNH. There are a lot of courts at Phillips Exeter Academy, but they cannot be used by the public. Many of us go down to Boston to play.

If there was a facility created that had two squash courts, I would pay almost any amount to have a membership! Regardless of what other activities were in the facility, I would be joining just for the squash courts.

I am a founding member of the Seacoast Squash non-profit organization. We formed this organization in an effort to get PEA to let us rent their courts, but the effort was not successful. In forming the organization, we created a list of about 200 people in the seacoast region all willing to pay to join a squash club.

(City/Town: none)

Comment: I believe Portsmouth already has wonderful recreational opportunities: a great indoor and outdoor pool, tennis courts, ball fields and basketball courts, play grounds, not to mention the wonderful natural opportunities, the beach, Odiorne State Park, The Urban Forestry Center. I do feel that the maintenance needs to be kept up with, for example the tennis courts could use a good fix. But all in all I am very pleased with the opportunities the City provides.

Comment: One thing I would really like is more evening hours at Pierce Island Pool in the summer, either later hours or more days.

Comment: I was hoping to attend but have child care difficulties so wanted to share these ideas/Comment: I feel our rec. dept and preserving, enhancing it is essential for all of us but especially our youth!! However, I do take issue with how many of our summer rec programs are 2-3 WEEKDAY mornings including: whiffleball, Tball, multisport and until this summer swimming. I feel this type of scheduling excludes working parents and thus many children. I feel > evening and sat sports should be avaliable. I did approach the Director of the pool this spring and am very happy that evening swim classes will be tried for the first time this summer. I also feel summer swim classes should have a fee just as they do all year long. With the city budget issues why are we offering free summer day time swim classes? A modest fee from hundreds of participating families could help the city fiscally. Lastly, we greatly enjoy the city pools and feel they are a tremendous asset to our city and youth. Please don't close the indoor pool!!! There must be a way to save it? Perhaps, we could do some fund raising for the needed renovations or get some corporate sponsors related to swimming. I would be happy to meet with other citizens regarding a fundraising effort to keep the city pool if that should come out of tuesdays planning meeting.

Comment: I am writing this to express my interest and concern with regard to the recreational needs study for Portsmouth, NH. I love to play tennis and many times I have played tennis at the South Mill Playground tennis courts. These courts are used frequently during good weather. I have played tennis at different times with over 50 people at these courts. However, these courts are in constant need of repair and I urge this study group to consider tennis as a very important sport and activity, one that can be enjoyed from a very young age to people in their eighties.

I would like to see these courts resurfaced, with a quality material, and I would like to suggest that the fencing is in need of repair as well. PHS also has tennis courts, and those courts appear to be in a little bit better condition, but those courts still need attention to care. I would also like to see the city of Portsmouth add additional tennis courts somewhere in the city. A wish list would also include an indoor tennis facility for year round play. With the recent success of the PHS girls and boys tennis teams, we owe it to our residents to have good quality tennis courts available for our use. Compared to the cost of

maintaining ball fields, tennis courts do not require much maintenance. I think tennis needs to capture more of the city's recreational dollars.

Comment: I would like to see a thoughtful, real study done on the pros and cons and hows of filling in the upper portion of South Mill Pond in order to enlarge the recreational space in front of the Middle School. Obviously, there would be barriers to doing so, but the pond seems to fill very little aesthetic (if any) or practical value and the alternate recreational use would be huge.

Comment: We need fields! Why don't we develop the landfill where they had proposed the Middle School go, and create fields for kids to play on? Partnering with New Heights facility (the gym) is a good idea too.

Comment: Personally, I'd like to see the Rec offer some fitness/aerobics programs for seniors (over 50 or 60) who still work. It seems like most organizations who have programs for seniors schedule them for daytime, overlooking the fact that a large percentage of seniors cannot or prefer not to retire. Some evening fitness programs would be ideal. Thank you.

Comment: I'd recommend that Portsmouth consider adding 2 Squash courts to any new rec facilites built. Squash can be played year round. It's always ranked near the top of the list for overall workout experience - strentgh, speed, flexibility, cardio, etc. Racquets (<$50), balls (<$5 for 3), sneakers (<$40) and eyewear (<$20) are the only equipment needed and can be purchased inexpensively - making it a game for all to enjoy.

Courts can be reserved by the hour, so no waiting around. It can be played at any time of day. Court upkeep is minimal. Additionally, there is already a squash playing contingent in the Seacoast wanting for a public venue to help grow the sport. I'd be happy to discuss this further.

Comment: As a member of the Coed League, I would like to please ask that you definitely keep the best field the city offers, in Alumni Field. With it's well kept dirt, and the best lights we play under, we have to keep access to that field. Also I think that the city should totally fix the high school field that we use. The lights make it very dangerous to attempt to play a fly ball; but the worst issue with that field is the mosquito problem. There is no way that families can come and watch if they are to be inundated by mosquitos. It's the city's responsibility to make the Rec League fun for the whole family to be together.

Comment: For adults the main facility should be the indoor pool at the High School. Having used this facility over 200 days each year for over 25 years, I can attest that this is a valuable community resource. It provides an exercise location that is open year round, the exercise is low impact, and the benefit is as good as running without the injury potential. In fact swimmers are less likely to die of cardiovascular

disease than runners or walkers. High School students should have use of the facility for their physical education requirements. This would set them on a lifelong exercise program

Comment: I would like to see a new roof put on the pool (the current one leaks)with solar paneling to heat the pool. The aquasize class needs to have the entire pool for an hour twice a week as it has as many as 19 attendees. Currently it is shared with those learning how to swim and general swim which is a very small number but the class must accommodate them. More dressing rooms are needed or at least some for younger children and their moms, especially boys between the ages of 4 and up. Many women do not use the dressing rooms as there are not enough and so they are nude and the little boys are noticing. The hair dryer outlet needs to be relocated. Currently people coming in from the pool must excuse themselves to get by anyone using a hair dryer. The parking for the pool needs to be expanded. People sometimes must park under the trees in the middle past the parking lot. It would be nice if all of the facilities could be located in one area (gym, pool, etc). However, since I currently only use the pool I would appreciate any upgrades that could be done to it. I would like to thank you in advance for your consideration.

Comment: Please include at least two squash courts. It is very difficult to find a place to play squash in Portsmouth, and a number of us love to play and would play regularly if we had a place to play. My husband and I both would use the courts.

Comment: Badminton courts.. indoors or outdoors would be easy to install on existing surfaces. Better/more tennis backboards for solo practice... small skate park.. would be a safe and central environment for kids to congregate and exercise...

Comment: I first became involved with youth sports in Portsmouth in 1996/97 helping to coach a fledgling group of about 15 kids with the newly formed Seacoast Lacrosse Club. Over the course of the past 12 years I have had the opportunity to coach a number of teams and serve on the board of directors for Seacoast. During that time span the enrollment has grown to over 175 boys and girls. That is an incredible growth rate and I believe it is indicative of kids growing interest in sports in general. With the success of our high school sports programs the participation at the youth level certainly seems to be paying dividends! Needless to say the number of kids participating in various recreational activities have put a tremendous strain on the limited facilities the City has to offer. Aside from the high school fields, there is not a single field in the City that is even large enough to accommodate a lacrosse field! All any one that doubts we need more facilities has to do is go by the Dondero school field on a spring weekend and watch kids trying to play on that field. Not only is it too small but it is in such a state of disrepair that we are lucky no one has ever been seriously injured.
Portsmouth has a state of the art Public Works facility, is soon to have an equally impressive fire station and it?s time that our recreational facilities were brought up to the same standard.

Comment: Unfortunately I will not be able to make it to tonight's meeting. My parents are in town visiting. I have spoken to some folks in the community, and there will an individual there with handouts in support of an ice rink. As a result of the meeting please let me know if there is anything I can do.
City: none

Comment: One idea to consider is partnering with Rye, Greenland, New Castle and Newington when considering land available for Fields and other Recreational uses. This would have to give us more options. Typically we have kids from these communities join our rec programs anyways. I think this partnership would provide the best solutions for long term recreational needs of our communities.
(City/Town: none)

Comment: Regretfully I cannot attend tonight's meeting. Please let it be known that I support this effort to expand the City's recreational facilities wholeheartedly and enthusiastically! [-] a fledgling group of about 15 kids with the newly formed Seacoast Lacrosse Club. Over the course of the past 12 years I have had the opportunity to coach a number of teams and serve on the board of directors for Seacoast. During that time span the enrollment has grown to over 175 boys and girls. That is an incredible growth rate and I believe it is indicative of kids growing interest in sports in general. With the success of our high school sports programs the participation at the youth level certainly seems to be paying dividends! Needless to say the number of kids participating in various recreational activities have put a tremendous strain on the limited facilities the City has to offer. Aside from the high school fields, there is not a single field in the City that is even large enough to accommodate a lacrosse field! All any one that doubts we need more facilities has to do is go by the Dondero school field on a spring weekend and watch kids trying to play on that field. Not only is it too small but it is in such a state of disrepair that we are lucky no one has ever been seriously injured.
Portsmouth has a state of the art Public Works facility, is soon to have an equally impressive fire station and it's time that our recreational facilities were brought up to the same standard.

Comment: "What indoor recreation facilities do we want to provide? (Courts? Physical fitness equipment and services? Table sports? Pool/aquatic facilities?" I would like to express my strong support for the construction of a squash court at a future Portsmouth recreation facility.

Comment: Please consider a squash facility. Not only is this a sport that can be enjoyed by all levels, all ages - is also an excellent aerobic actvity.
In many communities squash has been the basis of enrichment programs. I have linked an example. We have community member who are motivated to form such programs. http://www.squashbusters.org/
(City/Town: none)

Comment: I think it would be great to have a Portsmouth Rec Pass that would incorporate many of the different facilities-maybe make it an a la carte option-the user selects the facilities he/she uses the most and pays accordingly. I am a member of Spinnaker Point, but also use the indoor & outdoor pools. It would be nice to have one pass that utilized both.

Spinnaker Point is great-however, more classes that are included in the membership fee would be fantastic. More group fitness classes-strength training in particular.

Comment: Hi just come home from meeting u are asking for a lot of in put and u got it, we are not a quiet bunch. At dinner I asked my children what they think of the fields we use, (ages 17, 13, and 8) answer more light on JV soccer field, more parking at clough and drainage at Sherburne Field.

Comment: All ages. In addition to the aquatic and sports fields required, it's essential that we dedicate an area for recreations such as hiking, nature walks, running trails, etc. These areas require none to minimum maintenance and would provide healthy recreational opportunities for Portsmouth residents of all ages. Thank you for inviting comments online.

Comment: I forgot one thing. We LOVE the oudoor pool. The team that runs both indoor and outdoor pools does an amazing job! Kudos.

Comment: I would like to see the new Rec center incorporate more information on opportunities for families to use city open space. More visibility of the water trails. Possibly renting kayaks and bicycles for visitors and residents. It would be nice to compliment organized sport activities with passive recreation. I would be very impressed if this study would provide a response to nature deficit disorder as scientifically explained by Richard Louv in his book, Last Child In the Woods. As a parent with three children we are provided with an abundance of organized recreational activities. I am looking more for more opportunities to explore our natural environment. Trails...wildlife ID...letter boxing...

Comment: I would like to see two things. A skating rink at Prescott or lafayette Park in the winter. Not an artifucial rink but just a flooded area. Bocci courts at lafayette or 4 tree island. I think there could be consideralble private support for both of these ideas with commercial naming rights, If I can demonstrate financial support, would you consider it?

Comment: Please consider partnering with New Heights in order to benefit the city's youth, save money on new facilities, be green, and enhance/build upon what is already there. The Community Campus has a beautiful and very under-used gymnasium, table sport facilities, acres of outdoor areas, etc. This is the kind of private-public partnership that our wonderful city can facilitate. It would be a model for what

can be done to make the best use of existing resources as we meet the future recreational needs of our community.

Comment: Would love to have squash courts in town! Would pay good money to play on...
city: Exeter

Comment: Unfortunately, I did not attend the public input session Tuesday, June 16, for Public Recreation Sites in the city and it did not occur to me to express the following thoughts until reading about the event in the Herald.

It is clear that land resources in the city are at a premium for all and pressure for the intensity of use increases daily. Areas of our lives that are unprogrammed become fewer. We cannot overlook that the more this pressure increases the more valuable green, lush park areas become for the city and its residents. Studies of children's play areas have shown greater creative development and less behavioral discipline problems when natural green areas are incorporated into play yards.

"The Effects of Landscape on Human Health: Searching for the Evidence" by the Urban Forestry for Urban Health and Wellbeing, July 2006 , seeks to identify "evidence based studies of health effects directly related to natural landscapes". It reports studies connecting green and natural environments with less functional deterioration in the elderly, improved self discipline for inner-city girls; improved stress , blood pressure , attention and emotion testing for medicated students; Improved emotion and attention tests for university students ; and more.

The top effect reported for kinds of Stimulus was "Views of Nature". The top recorded health effect was "Short Term Recovery From Stress and Improved Attention Capacity". The study group of people used in landscape-health investigations most reported was "General Public".
To summarize, the findings would seem to say THE GENERAL PUBLIC BENEFITS THE MOST FROM VIEWING NATURAL SETTINGS. Combined with the environmental cleansing effects of large tree plantings, the importance of natural green areas within the city cannot be overlooked. To create a "park" that consists of chain link pens with specific programmed activities inside is contrary to the concept.

I urge "Parks and Recreation" to consider balance in its planning of the future. The importance of unprogrammed restive recreation is often unspoken by the ungrouped that are enjoying the unscheduled.

Comment: As a condo owner at Spinnaker Point, I enjoy a free membership at the Spinnaker Point recreation center, however, I as a member of the community I would not be willing to pay for a membership at this facility. It needs some major upgrades...modern weights and exercise equipment, the locker rooms need a makeover, and an expanded group exercise class schedule. The only amenity I use at the facility is the running track and the one yoga class each week that fits into my 9-5 work schedule. The Portsmouth community would benefit from building a new rec center that combines aquatics, a

fitness center, a longer running track, and modern amenities. Locating this facility downtown would allow people who live and/or work downtown to walk to the site. Keeping this new facility affordable to young people and families in the community would be crucial to gaining support for the project.

Comment: I have many Portsmouth clients and have been serving the seacoast with a nanny service for 3 years. It would be an asset to have a communtiy center with:1 - Multi-generational indoor aquatics area (multiple swimming pools - lap/competition, warm water)
2 - Fitness center (cardio, weight, multi-purpose exercise studios, gym with indoor track)
3 - Modern Family & Adult Only changing areas 4 – Daycare 5 - Interactive Community Spaces (welcome/relaxation lounge, indoor playground, passive recreation area) 6 - Ample Parking Area & Administrative offices

As a small progressive town. Portsmouth needs to move forward and offer a strong communtiy gathering center. I hope Portsmouth see's how this could benefit their community. Promoting health and fitness and family values.

Comment: It seems to me that both Spinnaker Point Gym (which has a pool) and the gym at New Heights are underutilized. I would imagine that there are opportunities here to partner with New Heights for instance to make their facilities more widely available rather than using scarce resource of land and money to build new buildings.

Comment: The prevalent theme at Tuesdays June 16, 2009 discourse was that we have great recreation programs and staff but our fields and facilitiies are not adequate. I see dollar signs everywhere associated with this project and I sincerely hope the city intends to walk the walk when the time comes.

We are at at some point going to have a look at using lands on Sagamore Creek and the Pease Trade Port. Artificial turf fields alone are not going to solve our multi use issues. We have far more programs than fields. Gym space time is at a premium, many teams don't even practice once their season starts.

The Aquatic park idea was mentioned numerous times. This comlpex could combine our indoor pool and outdoor pool at one location. That vacant lot where Yoken's Restaurant once stood looks to me to be a prime spot for that facility.

The High school could then have that hockey rink constructed in the vacated indoor pool spot.

The softball field at the Middle school should be saved. Mr. Hopley has devoted much of his life caring for that field, through his efforts Portsmouth has retained a valuable piece of the recreational complex. I would suggest moving the South playground outdoor basketball courts and operations to the Atlantic Heights. There is plenty of space under the bridge for this. I would build a structure at the south location with muliple basketball/tennis courts. This structure would house all the programs and more that were

associalted with the Connie Bean Center. This action would preserve the ball field and give the downtown merchants that retail component they were looking for.

There are all kinds of scenarios for skate board parks, fields and gyms along with Aquatic that can be deleoped. All these will be contingent on available land and of course money. A Roger Allen Prk (Rochester NH)comlpex is certainly feasible for Portsmouth.

I hope my 52 years as a resident, my 25 years of involvement with sports (Little League Presidnet-Football- Basketball) has enabled me to convey some constuctive ideas that you can use. It has been almost 100 years that anything for our Recreational infrastructer has been done. My grandchildren are using the same facilities that my father and I both used. Looking forward to working with you to create a complex that Portsmouth NH (not Kittery ME) deserves.

Comment: Thank you for providing this avenue to provide comment on the future of Portsmouth's recreation programs and infrastructure; as director of the public library in Newington, I work Tuesday evenings 3-8PM and was not able to attend the session on Tuesday.

My main concern is the park area at Atlantic Heights, where I live with my family of four. The Little League park is in great shape, but the tennis and basketball courts are in dire need of rehabilitation. The "dog park" needs gates for obvious reasons.

There's all kinds of potential for that park area under the bridge, and as you know, the AH neighborhood is growing substantially with the Atlantic Pointe and Falkland Place townhouse developments.

Comment: I enjoy the use of the pool at Spinnaker Point, but feel there is an unsafe condition there. If anyone needed assistance in the pool/hot tub area there is no way to summon help without returning to the front desk. Can some sort of a call button or alarm be placed in the area?

Comment: As a seinior citizen I am primarily interested in open space and trais for personal recreation. Please do not destroy wild areas for fields. These can be used for birding, photography, and just getting out in nature.

I do support fields as needed for the youth and addult sports,but these can be sited in areas not crucial to the environment. I also support working with surrounding towns who have more land. These towns use Portsmouth facilities such as the High School, Prescott Park, Market Square. They can contribute with shared fields. Also please consider walking, biking, skiing trails; connecting open areas that we already have to make a trail system. Maintenace of fields, buildings, and natural areas must be a priority. Part of the current problem is bacause existing facilities have not been maintained.

Comment: We have a dedicated group of 40 people that play each week on whatever fields we can find - mostly rocky, small, unlevel fields with no nets... but we do manage - It would be nice to have a dedicated soccer field in the city for use from April through November with nets. We're told we cannot use the high school and the other field are used for Baseball all summer - we desperately need soccer fields. Thank you.

Comment: Both of my children (a boy and a girl) -- as well as perhaps several hundred other kids in the Portsmouth, Greenland, Newington and New Castle area -- play lacrosse. After five years and a total of perhaps 80 games, my kids have yet to play a "home" game in Portsmouth. We play our games in Greenland at the Recreation Field on Post Road. And after every game, we pass the City provided, well kept baseball facilities at Plains Field and elsewhere.

It is frankly time for the Rec Department to understand that lacrosse is a game on the rise, nationally, statewide and in Portsmouth. Kids who play lacrosse in the Spring deserve a dedicated field or fields in Portsmouth, just like the baseball teams now have and which we all support.

Comment: I've found that it is often difficult to find an un-reserved piece of open public ground where our friends and family can participate in "unorganized" sports and games. It is very difficult to find a level/legal piece of ground where we can play a pickup game of soccer of kickball or whatever... without having to plan and reserve space ahead of time. I'd assume that the only solution is more space or access to space. Is space on Pease public? As far as reserved spaces/fields go, is there a place to view (online or otherwise) what locations are booked or not booked? We'd like to not have to drive all over looking for a vacant field and not worry that after playing for 15 minutes, the rightful group that reserved the field will come and stake their claim.

Comment: I think it would be great to have more soccer fields in Porsmouth. There aren't many good options locally right now.

Comment: The city of Portsmouth could really use more field space for residents to play soccer and ultimate frisbee on. It stinks having to travel out of town to participate in these leagues because fields are not available within the city.

Comment: I appreciate the indoor pool and how well the facility is kept up. I have noticed that the evening adult swim time is often shared with lessons. There should be some time set aside for adult lap swimmers of all levels. It would be best if adult swim time was truly adult lap swim time and not shared with lessons and other activities.

Comment: I have been a lap swimmer in the Portsmouth pools regularly for 24 years. The indoor pool is frankly the best swimming pool in Portsmouth. I am encouragling you NOT to make any changes to it as it is used constantly by citizens of Portsmouth. It is a resource that is irriplacable. Pierce Island pool, I realize, is expensive to maintain but as a summer facility it is essential. There is no other public outdoor pool available to the public. If cost is the issue, charge more to swim and hang out there. We will pay. The pools are an essential must for children learning to swimm, the elderly who participate in regular programs, swim teams who bring pride to Portsmouth and for us all, and there are many of us, who swim for health all year long.

Comment: Having coached boys lacrosse last year for the Seacoast team, as well as participating in many recreational programs over the past 14 years with my children, I would HEAVILY emphasize our need for MORE FIELDS in Portsmouth. This can easily be accomplished by using the land behind the high school--the new Middle school should be built there with the accompanying 5 fields which the plans accomodate.

Additionally, the tennis courts at South Mill Pond, which are heavily used, need to be desperately resurfaced and the nets re-set to the regulation height.
Finally, the idea of moving the recreation offices from Connie Bean to the proposed new middle school site on Parrot Ave is absolutely absurd--as is adding back into the renovation plans a second gymnasium. PARKING has never been addressed in this plan--having a son just complete 3 years at the middle school with a second son ready to enter, I can assure there simply IS NO PARKING during the school day, after school, or during any school function. As avid users of the library as well, I can again assure you there is NO PARKING in that area, and the traffic configurations anytime buses are running and/or recreational soccer or afterschool sports are using the fields, is dangerous. The new MS plan DOES NOT even come close to addressing these issues, let alone address adding in a second gym with the concomitant Connie Bean programs, as well as the required recreation employees and officials reguired during those programs....WHAT ARE they THINKING? The best option is a 'no-brainer'--build a new, 'green' Middle School behind the high school--gain at least 5 new fields for the city of Portsmouth--put the recreation programs for Connie Bean there as well, with easy access to the high school--the recreation department floats between the two buildings and there is plenty of parking provided and safer traffic patterns--all for less money than renovating the current building in the wrong location.

Comment: The need for open space for wildlife, walking, viewing water, wetlands, vernal pools, wildflowers is as important to the soul and body as playing a game of tennis. Both are important, but the former does not seem included in the "recreation needs" list.

Comment: I enjoy running. Having lived in many different cities in the U.S. I have always appreciated dedicated multi-use recreation paths/trails for running biking, walking etc. I'm somewhat disappointed with the lack of a safe place to walk or run hear in the city. I know the cars are sick of us runners on the road not to mention the safty factor. Has Portsmouth looked into creating a city walking/running trail?

I've been to the Forestry cnter and Peirce Island but those areas are not long enough. Many cities use areas adjacent to train tracks or even convert unused tracks to trails(rails to trails). Are those tracks that head out towards Atlantic Heights still being used? What about "rails to trails."

Also on a separate note I think more hours should be available to lap swimming at the pools.

July 2009

Comment: Given the epidemic of obesity facing our state and the need to encourage children and adults to engage in physical activity, a new indoor recreation facility for our community is sorely needed. The winter is long so there is even greater need for indoor recreation space. Such a facility could be provide opportunities for multiple age groups to exercise and have fun together and would be a worthwhile investment of city funds. It would create social capital in the community. Important elements: multiple pools, fitness center, squash courts, community spaces, child care.

Comment: I agree with many that we need: A multi-generational indoor aquatics area (multiple swimming pools - lap/competition and warm, shallow water for kids) 2 - Fitness center (cardio, weight, multi-purpose exercise studios, gym) 3 - Modern Family & Adult Only changing areas 4 – Daycare 5 - Indoor Playground (real swings, sandbox, play structures, Jump N Gym) 6- Interactive Community Spaces (welcome lounge, passive recreation...etc.) 7 - Ample Parking Area & Administrative offices

Comment: 1) Have internet sign-up, waiting in line is not feasible for working moms
2) Have activities for 3-6 year olds after 4pm so working moms can get there - ie - soccer, swim lessons in the summer, tball ball, etc. Kittery has a great program & internet sign-up.

Comment: I think it's great that the city and the rec board are studying the city's rec needs and that the public has been engaged for their opinions. I feel strongly that the city needs a large, multi-field outdoor complex, which would include 2 to 3 small little league fields, 1 or 2 softball fields and a larger, regulation size baseball field. Incorporating a soccer/lax field would be a bonus. I realize space is limited in the city and there are the obvious financial challenges. However, if a parcel could be secured or purchased that would support such a complex, I believe that the benefits this would bring in building a strong community and bringing people together in an increasingly disconnected world would make it well worth the cost. I grew up in Braintree Mass, and we had a large complex like I have mentioned and the number of people, young and old, that were there every summertime night watching games or just socializing with neighbors was wonderful. I think that Portsmouth deserves the same.

Comment: I hope that the Connie Bean building can remain a recreation building to be renovated to bring it up to code. I don't feel that trying to add on an extra large basketball court with sliding walls to

the Middle School Project or even if open space can be configured, an addition court added to the Middle School blue print is a feasible idea. There are too many negatives in this scenerio, i.e. delaying the Middle School project, additional parking requirements,noise level with multiple games going on simutaneouly, having the school open to the public for rec dept functions, etc, etc. I hope that all aspects of keeping the Connie Bean vice adding an additional insufficent basketball court to the middle school will be studied before just eliminating the Connie Bean. Many, many Portsmouth youth use the Connie Bean on a daily basis.

Comment: We support ACTIVATE Portsmouth's vision for a year-round multi-generational aquatic and recreation facility and are confident that this center will generate economic activity for the City while providing adults, seniors and families in the community a healthy and productive place to come together.

Comment: Portsmouth area definitely NEEDS these types of facilities - multi-purpose aquatic and recreation in one facility. I would hope they would consider allowing non-residents ?join? or use them as well as I know there are many surrounding towns that crave such facilities. We really miss The Works from when we lived in Dover and wish they offered something similar here. I also am a member of Gold?s Gym in Portsmouth and we constantly have conversations about how dumpy the local gyms and pools are and how a ?real? recreation facility would do so well in this area. There is literally nothing active for kids in the winter here either-plenty of library and music programs but nothing that requires real activity-which we all need in those long winter months.

We do appreciate being able to use the outdoor pool in Portsmouth-however I only wish that they would have some sort of enforced rule for the ?poop? incidents because on many occasions we have arrived only to find a closed pool-there are not any other options for swimming around here. I also wish they would allow kids to use tubes, floaties etc?..

Comment: I think it would be great to have an indoor recreation facility, especially for the winter months. Also - if there was a gym and daycare onsite it would be helpful for parents who want to be physically active themselves. I love the idea of a warm indoor pool for swim lessons and just recreational family swimming. Often in the winter we feel cooped up, and just need a big open place for our son to run and burn off some steam. An indoor rec area would be great for that. I would gladly pay an annual or monthly fee for access to something like this.

Comment: I agree with the vision of Activate Portsmouth which is to build an innovative, green, multi-purpose aquatic, fitness and recreation center that is accessible to all age-groups, fiscally responsible and has the following 6 amenities: 1 - Multi-generational indoor aquatics area (multiple swimming pools - lap/competition, warm water) 2 - Fitness center (cardio, weight, multi-purpose exercise studios, gym with indoor track) 3 - Modern Family & Adult Only changing areas 4 – Daycare 5 - Interactive Community

Spaces (welcome/relaxation lounge, indoor playground, passive recreation area) 6 - Ample Parking Area & Administrative offices

Comment: I have always supported the Portsmouth Rec. Department, and my children have participated in countless programs. This spring, however, we decided to try a program in Greenland because my younger son was really interested in being pitched to for baseball and felt he had moved past t-ball. There isn't anything besides t-ball offered for his age group here (he's 7), so that was our only option. I was very impressed with their program (which, I believe, is mostly volunteer run), but I couldn't help thinking that some sort of joint venture between the two towns would make both programs stronger. The children will all go to high school together, can play soccer together through Portsmouth City Soccer, and can play baseball together through Portsmouth Little League. Why are we not offering other opportunities to play together and working to combine our resources? They have the land, and we have the expertise. It seems like a perfect combination. It would also give us a larger pool of volunteer coaches to draw from. I think we need to start thinking of ourselves as a region for the benefit of all.

Comment: This may or may not already be happening, but I'd like to see some bus trips offered, for people of all ages, to shows such as the Rockette's at Christmastime, or a day trip to NY City with a play and lunch involved.

Comment: Please give priority to open spaces, passive land use for enjoyment of all people, not just athletics More bike lanes & safety for bicyclists; Maximize current recreation facilities, look especially at Connie Bean center.

Comment: We have avoided using the indoor pool but would like to. My wife uses a wheelchair, and there is no place where I can assist her in getting ready or getting back to street clothes - all the dressing rooms are by sex. Can we have a family dressing room?

Comment: I would like to see more planning for parks outside of the downtown area and throughout the city.

Comment: Our city needs a recreation facility that is a stand alone building, with plenty of parking and bus access, that allows all generations opportunities for physical and community driven recreation. Our city underserves our middle school children by not offering a constant exercise opportunity like a real cardio/work out gym with education on weights and classes. If these kids are not on a "team" they are left to fend for themselves on the open market for exercise which is costly and not community driven.

Any facility created should be like a real "gym" with squash, tennis, basketball, swimming, exercise, dance, yoga, fencing, etc. opportunities for ALL AGES. Any new plan should include rooms that the public can rent for private parties -- with refrigerators and tables and chairs available. Let's make opportunities for people to gather inside in the winter or in the rain. Let's offer parents places to rent for parties that are affordable and healthy choices.

Connie Bean is beyond its useful age and serves few. Spinnaker is adult only and that is exclusive. Greenleaf is underutilized and under developed. Why not partner with the YMCA and build on their current facility? Or better yet, create a facility that truly serves the needs of this town and put it all under one roof -- NOT AT THE MIDDLE SCHOOL -- as we all know that proposal is cockeyed due to congestion in that area. Our town does not need a fancy indoor water park. Our town needs a "green" building that is a safe, clean and welcoming location for our folks to build community and become physically fit.

August 2009

Comment: I was at the Recreation Needs discussion in June. I was the only one to speak about the Marching Band. To properly prepare for a exhibition, the field that the Band needs to use really has to be a football field. a) Competitions at other fields are on football fields, so they need the same markings for reference points; b) there needs to be an observation point so that the Band Director can view the exhibition from a high enough vantage point to make sure that people are positioned correctly during rehearsals; c) the press box needs to be large enough to accommodate four - six judges in order to host a marching band competition (current press box is too small).

December 2009

Comment: I am a resident of Portsmouth and have coached boys and girls youth lacrosse for the past five seasons.

The City needs to recognize the growth of youth sports generally and the spring sport of lacrosse specifically. We have numerous fields dedicated to baseball -- and rightly so given the interest and impact of the sport in our city. But we now have hundreds of children playing youth lacrosse and two high school teams vying for (and in the case of the girls, winning) State championships. Across the United States, the sport is growing in large leaps, and the interest in the Seacoast and our towns -- Portsmouth, Rye, Newington, New Castle and Greenland -- tracks this interest. We frankly need dedicated fields for soccer, football and lacrosse, and the need for a quality turf field is real.

Comment: Support greater access to fields for boys and girls youth lacrosse....turffed field would be a bonus!

Comment: To state that Portsmouth is sorely lacking in AVAILABLE recreational facilities (both fields AND gyms) at which our city's population can stay fit and engage in sports is an understatement for the ages. As a long time resident, I would be thrilled and proud to know that our city stewards are finally willing to take this matter seriously and address the problem. God's speed!

Comment: Youth athletics are almost as important as a great public school system. I enjoy volunteering my time as a coach and am looking to the city to provide a place for our children to play. These after school and summer programs provide many hours of SUPERVISED fun for our kids.

Comment: Playing fields are totally inadequate. Our organization has 200 kids U-11 to u-15 boys and girls. 95% of these kids are from Portsmouth. The team that I coached, U-15 girls, never played one game in Portsmouth in 3 years ! Our home field was Greenland. In fact only 1 year did we practice at all in Portsmouth. Of the 6 or 8 Seacoast lax teams only 2 or 3 even practice in Portsmouth- and that is at the muddy Dondero field. I do not beleive that any of these teams have ever played a regulation game in Portsmouth. Pease would be an ideal location for 2-3 fields.

Comment: We need to look into making improvements to the High school football field. (Drainage, grass condition). The other major concern is field availablity at times. Do we need to add another field that would help support our youth football program.

Comment: I am a Portsmouth resident of 3 yrs now, absolutely LOVE our town & all it has to offer but do share the concern that our recreational facilities are sorely lacking. My son currently plays soccer, football, lacrosse & hockey. I play tennis, soccer & swim. As you can imagine, with the lack of facilities, I spend much of my time driving between York Indoor facility for indoor lax, Exeter for rinks, Greenland for football & Newington for lacrosse in the Spring. For tennis, I actually end up playing at one of the local hotel's court most of the time or drive to The Works in Somersworth or Great Bay for indoor tennis. The lack of fields, sports facilities & the effects it has on our family are ridiculous & obviously very inefficient. I understand that it takes money & would be happy paying a nominal fee to use quality facilities in Portsmouth - I certainly spend enough across multiple spots now & think my gas money alone would probably cover the monthly fee. Personally, I do not care if the facilities are all provided by the town or if the town were to work together with a local organization, such as the YMCA, to maximize the potential investment necessary to create what is needed. That was the approach our town in Basking Ridge NJ did & it works very well. I encourage the town to explore the revenue that could be made jointly w/ the Y or others as a profit share - look at the potential just from selling facility memberships to surrounding towns since no town has everything that is being requested under a single roof & look at how many Portsmouth

families drive all the way to Somersworth for the Works or at those of us who sometimes drive to both Exeter & York in a single day to use private facilities. My suggestion on location would be a facility on the outskirts of town. I realize this may be out of the norm to other residents, but parking will always be an issue in town & it would also inevitably add to traffic problems. Maybe off Lafayette Road in an under utilized shopping center or corporate park?? I realize this is not perfect, but for those of us with sports-oriented families who are currently going all over the place, its a vast improvement & I'd rather have this option than a subpar facility in town since costs & space restrictions increase in that scenario. In terms of the actual facilities - I think all of what our family needs has already been requested - outdoor fields to support lacrosse, soccer & football are our priority. A local ice arena to support all the kids who want to play hockey but have parents who don't want to or cannot pay the premium that comes w/ ice time at a private facility or simply cannot spend the time to drive to Exeter, Dover or Durham to have their kids play. I GREATLY appreciate the fact that Portsmouth is reviewing this & giving residents the chance to play a part in it, so thank you for all your hard work!!!

Comment: We are in desperate need of fields in Portsmouth. Why not make some kind of sports complex (like Roger Allen Park in Rochester) out at Pease? There appears to be enough space there, and nowhere else.

Comment: We are in desperate need of fields for all ages. Because so many age groups and teams share fields we need several turf fields. Football, lax, marching band all use the PHS football field. PMS has no fields for some of their sports....should get 1st use of fields across street...perhaps move recreation for younger kids to a new facility and location. Do not agree with one field here and there scattered throughout the city. Try to group the fields together somewhere within the city. Not to mention the need for an updated Connie Bean Center for recreational activities including basketball. The outdoor courts, basketball and tennis get a lot of use at South playground in good weather and the high school could use 2 more courts next to the current ones so matches can be played faster and practices can be more efficient. Thanks for the opportunity to speak up.

Comment: they need more grass,the lines need to be more visable(at newington)and the ground is uneven,other then that,there fine.

Comment: We lack sufficient fields to support recreational activities adn the fielsd we do have are undersized and in poor to unsafe condition. I strongly support the development of more fields and of multi-purpose artificial turf fields!

Comment: Portsmouth needs more playing fields and funds should be allocated toward this important recreational need.

Comment: The City needs more "full size" athletic fields. As a parent of 4 kids who play sports and also go to the Portsmouth schools, it is a disgrace to show visiting middle school teams Clough field and say "welcome to Portsmouth and welcome to our undersized dirt field that we play most of our outdoor sports on". Portsmouth High School is so short on fields that practices have to be staggered and if there is any rain the fields become unusable.
(City/Town: Newington)

Comment: I have really enjoyed using Spinaker Point as our local Seacoast Gym. It is only one mile from home and has provided me the opportunity to walk the track in inclement weather, to swim and hot tub under the falling snow as though I was in islands and the opportunity to take some really incredible classes, like Jasons yoga classes.
Even though i live "just over the bridge" the oppourtunity to use Spinaker Point's facilities on a pay as I go basis has been wonderful for staying healthy and fit and also for soicalizing with other workout friends from the Seacoast. Jason is wonderful and is to helpful to so many people. I hope that he continue to do his special work with eveyone that he helps.
(City/Town: Kittery)

Comment: [We] are in favor of the city purchasing the land behind the cemetery- that would be a great central location. Also, another field at the stump dump would be great. And of course the Jones site is always iffy because of the contamination. I remember when I was young and the landfill was in operation- many, many dead fish in the creek. If we can use it and keep our children safe as well, then let's go for it. Let me know if there is anything Linda or I can do to further this process.

Comment: Jason is an asset to our community, his enthusiasim & energy make you enjoy his classes, always willing to help, and understands their is many differrent levels that each individual has.

Comment: the site near Calvary cemetary is probably the most economically suited for developement. Over the long term I could see the possibility of tying into the Hett property for expansion. However short term the land ,access to it and parking areas all seem to be better given the uses we need to consider. I think turfing the high school fields is a great way to go. All our efforts to provide more facilities should not diminish our efforts to keep the South Playground and surrounding recreational fields in tip top shape. This area is one that makes Portsmouth such a pleasure to live in.

Comment: I have been taking yoga lessons with Jason at Spinnaker Point for almost 3 years. His classes are fun, help reduce stress, and are appropriate for all levels. These "free" classes are the only reason I still belong to Spinnaker. Please continue them and consider offering more "free" classes.

Comment: Portsmouth needs more tennis courts, especially at the high school during tennis season. It would be really nice to have indoor courts accessible to the average person.

My wife and I have been attending the yoga classes at Spinnaker Point weekly for the past year+ and we are incredibly pleased with the service, free of charge, for members. This is exactly the type of activity that we would like to see our tax dollars fund.

Comment: I am very interested in seeing new fields developed within the city. The lack of fields has constrained the ability to have games and practices and has had a detrimental effect on the number of teams and thus the number of participants that can be accomodated. This has particularly impacted the LAX programs within the city. I believe we need to encourage participation and engagement in sports as a way to help keep the poplation physically fit & healthy. It reduces stress and channels energy in positive ways. I also believe that having more fields will allow more access for all who may not have as much natural athletic talent but who can still benefit from exercise and sports participation. I am very excited about the possiblity of the land off Peverly Hill Road and encoaurage the city to pursue this as a high priority. Thank you for allowing the input.

January 2010

Comment: Our City is in vital need of adult recreation fields or any fields at this point, it is so important to the community, some might think it's a library, bricked sidewalks, parking garages so we can squeeze another 1000 people downtown , to me the priority of having ahtletic fields encourages an active lifestyle and will be a source of many memories and learning experiences for young and old. Most of my memories of Portsmouth were either the playground exp or activities it offered us. It was a community back then, I really miss those days.

February 2010

Comment: 2 sports are NOT being developed for the childrent of Portsmouth: 1. Tennis - feeder programs are popping up all over the country to strengthen the growth of Tennis; Quickstart programs are critical in gaining passion and game-play ability. The city has loads of public courts, yet no viable teaching program are in place. The Littlefield summer programs are NOT using the Quickstart program and they have far too many kids-coach ratios to warrant it reasonable. The only way for Portsmouth kids to learn tennis is via private club lessons, which are outrageous. So many Portsmouth kids miss out on learning the sport and college scholarship potential. 2. Volleyball: the same goes for this sport, which is a leading scholarship opportunity for our kids. Yet there are no public feeder programs; the Middle

School has poor instruction w/o certified coaches. Kids have to learn via local private vball clubs, which are hundreds of dollars!

Comment: Aquacize at the Indoor Pool is just what the doctor ordered for my aging joints. I've been doing it for over 2 years now at the suggestion of 2 physicians & I am so much stronger for it! I have watched as the class size has grown from just a handful of us to completely filling the portion of the pool alloted to us. This class is one of the few physical activities available that truly serves older folks. Our class ranges from about 50 to 89 years of age!! Valerie Fagin is a tremendous teacher - she combines aerobic exercise with yoga & keeps us all fit and active. I cannot speak highly enough about the aquasize class. I'm at the very beginning of the baby boomer generation. As boomers age, many of us want to stay strong & active, & aquacize becomes a necessity.
City: New Castle

Comment: I am a frequent user of the indoor pool. I use it for exercise, which keeps me in good health, so for selfish reasons, I would be very disappointed were the pool to be closed. In a less selfish way, I think of the many other people who maintain their health through swimming, and the children who use the pool for recreation (it's MUCH better than many of the other alternatives for them), swim lessons, and competitive swimming. Please don't close this facility!

Comment: I use Spinnaker and the indoor swimming pool, both about three times a week. They are wonderful facilities that really add to the quality of life in Portsmouth. I urge the city to maintain these facilities and create more like them.

Comment: I use both Spinnaker and the indoor pool. They are good faciilities. I would like to see at Spinnaker the exercise machines that provide electronic record of your history of use of the machines. I used the system when I lived elsewhere and found the feedback very useful.

Comment: In the review of the city's recreation needs, please take into account the value and importance of our indoor and outdoor swimming pools. These are real gems and help to make Portsmouth a family-friendly place. One suggestion is to make better use of the outdoor pool by having additional hours for lap swim on weekday mornings. Usually, on summer weekdays, the shallow end of the pool is used for lessons and the lap lanes are closed. Why not open this for adult swimming? Parents could swim while their children have lessons.

In general, I think we must make better use of the facilities we have before looking at the need for new facilities. The pool at Pierce Island is magnificent. And the high school pool is amazing, as well. The low-cost and free programs for kids are a real advantage. I am sure parents would be willing to pay a

small fee for lessons, if we need to raise more money. But let's try to keep fees low. I prefer the existing facilities to anything with a lot of bells and whistles, which would require higher user fees.

Comment: I do aquasize at the Portsmouth pool and would like to see the roof repaired as it leaks in several areas. During the winter it would also be nice to have the water temperature increased a couple of degrees as it always seems to be cold. Ideally a new rec facility that would include a pool, gym, indoor track for walking/running would be fantastic.

Comment: I doubt my comments will be different than many others, however I feel compelled to Offer my input. Portsmouth is a wonderful community, rich with culture and beauty. It is high on the 'most desirable' lists. I feel it is imperative we offer our youth opportunities for growth and development. Furthermore, these facilities, especially the indoor pool, are very well utilized. The concept of closing these is completely counter productive. It's like 'cutting off your nose to spite your face' (sort of). In attempting to save our community, financially, you would be dealing us a severe negative impact, lowering the quality of our lives here, diminishing the opportunities for health and fitness acquisition, and maintenance. Closing these facilities is incredibly reactive and short-sighted, and in the long run and within the big picture severely detrimental. Please step back and look at the full story: do not proceed with uneducated and poorly planned reactions and please do keep the health and welfare of our community and its future in mind...do not consider closing the pool and other indoor facilities.

Comment: I own property in Portsmouth and pay to use the indoor pool several times a week. Please do not close it. It is a health benefit to many people. If you charge higher fees, maybe it could be more self-sufficient.

Comment: Rather than simply closing the pool,the city should consider creative ways to manage the facility in a superior manner that reduces the operating costs and increases the revenue generated at the facility. The pool is a source of social and physical stimulation for many Portsmouth residents, including our senior citizens. Eliminating this valuable resource will result in a significant hardship for this important population.

Comment: I am completely opposed to the proposed closing of the indoor pool.

Comment: I am a senior at PHS and have had the benefit to take lessons at both the indoor and outdoor pool. My brother, with all the budget cuts, has not been able to have the same opportunities as I have. Without the indoor pool, it would only add to the growing list of disparities between us. Please, don't close the indoor pool!!!

Comment: The indoor pool is a very important facilty to me and my family. I hope that every effort will be made to keep it open for everyone who uses it: swim teams, adult exercisers, kids learning to swim, old folks and the injured doing water therapy, etc.

Comment: I am unable to attend the meeting and have just a couple comments. 1) I love the idea of closing the indoor pool for one month this summer to help with the budgets. It is only one month & there are many other swimming options on the Seacoast. 2) Hoping we put children's rec needs up there. Connie Bean Rec Center is facing many limitations, Spinnaker is a no kid zone...we need the rec leagues and offerings for our children. The more involved in sports & recreation they are - the less trouble they get into. I hope we put childrens rec needs at the top of the list please!

Comment: First, I would like to thank city officials for doing an assessment of our recreation needs, for inviting public input, and for trying to think creatively about how to meet our needs within a very tight budget.

I understand that a lot of thought already has gone into the proposal to close the high school pool. However, given the great loss that this would be to our community, I want to make some additional suggestions and observations in the hops that this fabulous community resource may be saved: 1) I think we should look at the Rec budget in its entirety, rather than isolate out the cost of one particular facility. Can the department bring in more income that will improve the overall bottom line? What about charging modest fees for swimming lessons? What about modest increases in the fees charged to use the pools, as well as for other rec programs? Can the city earn income by making the pool available for private parties, as the YMCA already does? What about making the Greenleaf Center available for party rentals? Or Spinnaker Point? 2) If one pool has to close, why not the smaller pool at Spinnaker Point? This may not save as much money, but put this savings together with other income-generating ideas and everything adds up. 3) Why does the high school pool need three full time staff people? Couldn't it operate with two? Can staff be "shared" between the different rec facilities? 4) Can we earn more user fees at the outdoor and indoor pools? Half the outdoor pool sits empty on weekday mornings while lessons occur in the shallow end. Why not allow paying adults to swim laps during those times and make more use of the facilities we already have? 5) If renovations are the primary cost factor driving this decision, what about the Connie Bean Center? This needs renovation or replacement and no one is talking about getting rid of that. 6) I appreciate the creative thinking about using the YMCA pool instead. If the needs can really be achieved that way, that would be a great solution. However, the YWCA already has a somewhat limited schedule for lap swims due to existing programming. It's also a smaller pool, not as well suited for team athletics. If the swim team had to move into the Y pool, it wouldn't be a great environment for the team, and it would crowd out time for others to use it. Please try to figure this out before assuming that this option would work. 7) Lastly, if renovations are the primary consideration driving this decision, would it be possible to close the pool for 1-2 years and re-open it and do renovations later, when the economy (and tax receipts) have improved? So much money has already gone into this facility. It seems a shame to lose it forever.

Finally, while I may sound passionate about the pool, I know there are other urgent needs in the city as well. It is true that we need the $500,000 more for our schools than we need it for public recreation. However, I urge all of you to look for creative solutions. I believe we could shrink that $500,000 hole by reducing Rec Department staffing and looking at ways to increase revenue.

Comment: Very interesting reading the comments from the last community input session. Everyone seems to have something they 'need' the city to provide - quite expensive to do even one of many of these things, i.e. squash courts, more tennis, ice hockey - are these people dreaming??!!?? Someone has to PAY real $$ for these things.

My response to these comments is that in looking at what the city provides, we also need to look at what other cities as well asPRIVATE companies provide in the overall area. For example, there is a great hockey program at the Exeter Rinks, that is NOT far away, I take my daughter every week. If Portsmouth rec can sponsor a hockey team to play there that is great, but the idea that the city needs to build a rink is not realistic. (it is also not realistic to think the city need pay for each person's recreation - many people can pay, but would rather have 'free' (which means some other taxpayer is forced to pay)

There are so many private gyms, yoga studios, resources in other towns. Portsmouth rec should seek to partner with these organizations, not provoide everything themselves.

Comment: I would like to see the indoor pool remain open. Is it possible that a private public partnership could be established, for instance, the Y operates the after school programs. Is there a therapy group, agency, that could participate? Is it possible to reduce operating costs at all? Could Sunbridge or Edgewood be approached? Thanks for your consideration.

Comment: I hope all the comments I have read are from Portsmouth residents.
I certainly feel the athletic buildings, fields and courts etc. need upgrading but most of the comments seem to have a grandious idea what they want. I would never believe we are in a tough economic time after reading the comments. When considering any or all these suggestions I hope you keep in mind the taxpayers who cannot afford increases in their taxes because of the fact that all government, military retirements and social security recipiants do not include a COLA and also must pay more for their health insurance making a loss on their income for the year. Ask Dover NH about their Ice Rink and the financial problems it created.

Comment: Your potential location for fields at Pease will be a mosquito swamp. I do not know enough about the alternatives to comment, but that location in Pease will be unbearable with mosquitos unless Portsmouth is willing to spray aggressively.

Comment: I think that it of the utmost importance to keep the indoor pool open for the health and well-being of the entire community. I take my daughter to the pool at least 3 times per week and every time I'm there I see first hand how every age group in the community is represented. I would be a terrible loss to the entire community so I'm hopeful that the pool will remain open.
(City/Town: Kittery)

Comment: I use the Spinnaker Point recreation center from 4 to 6 days each week. Portsmouth is the first city/town I've lived in that has made a substantial contribution to my health and well-being by providing a reasonable cost fitness center with access to a very nice pool.

I applaud whoever was responsible for this commitment to our health and well-being and encourage the present recreation board to do whatever they can to maintain our facilities in top condition.

I've heard that the larger pool in our city needs a half million dollars in repairs. If we get an additional 25 to 30 years use out of it, it will be an asset to everyone's health and well being costing just pennies a day.

If we don't spend the money and the pool is closed, the Spinnaker Point pool will not be able to handle the additional numbers. On the weeks that the large pool is closed for it's yearly maintenance, I've been unable to swim during my allotted 6am to 7:15am time slot because all the lanes were taken.

In conclusion, we currently stand head and shoulders above 90% of America's cities and towns and we are recognized as one of the best places to live in the entire country. Let's maintain our commitment to providing excellent recreation and fitness opportunities for all residents.

Comment: As a resident of Portsmouth, I have come to appreciate, enjoy and consistently utilize the pool. I began to use the pool when I started training for triathlons and have found the facility to be exceptional both in its care and community.

The Portsmouth Indoor pool is the superior facility in the region as it has the best schedule for free or lap swim, accommodates those who rise early, work late, or who can go mid-day as I do, because I work from home. Not to mention, it's supremely convenient as I live just a mile down the road. However, I have friends who drive more than 30 minutes to use the facility because it is such an incredible facility.

It would be an utter disappointment to the community members who utilize the pool, if it were closed. Even as a newer resident to Portsmouth, it has become an integral part of my life here- I cannot imagine how it must feel for someone who has consistently been a member for years.

I agree with a recent editorial in the Seacoast Online written by Rob Wright. You should increase the fees for the outdoor pool and actually enforce them. As well, reduce non-resident fees to appeal to more non-residents. It would be advantageous to implement a structured payment system so that those who cannot

afford $480 in January after the holiday season may parse out their payments over the course of the year. That way, the pool would also have consistent income over the course of the year.

In all, there has to be a better solution than just to close the pool. There are far too many people who utilize the pool who are using the pool for FITNESS, not simply recreation as the board seems to think. If the issue is finding other indoor space for recreation, why not close Connie Bean as that seems to be the source of the problems?

Comment: I would like to voice my serious concern about the diminishing quality of life and thus the value of my property in the City of Portsmouth. At the time my family decided to purchase our small and expensive house we considered not only the direct property but all aspects of living in Portsmouth that included the quality of education in the High School and the recreational facilities like tennis courts and indoor swimming pool (both used by my whole family). By neglecting or plans to close these particular facilities the City is directly affecting for worse the life of its citizens and the value of their property. The swimming pool provides my family with great exercising option throwout the whole year. By introducing unsustainable plans for new facilities the City is not helping because it needs to raise the taxes and thus again not adding value. In the name of my family, four citizens of Portsmouth, I plead in time of recession for sustainability. I would not mind if the first step in case of funds availability if the City cleans its streets after the winter so all the people trying the use bicycles for transportation or pleasure can ride safely.

Comment: I realize that you have to make many tough decisions with the current budget constraints. I hope that you can make adjustments without closing the indoor pool! If that proves impossible, I hope you will immediately begin plans for repairing the existing pool or building a new one, so that work can begin as soon as funds become available in the future. We are a seacoast city - we need to make sure our residents (particularly our children) have year round access to swimming classes!

Comment: Sorry we couldn't attend the meeting but it's great we can submit our comment.
We have heard rumors that the indoor pool might close. We hope these are only rumors because we can't say enough good things about Ports. Indoor pool and it's welcoming staff.

All my kids learned to swim at this pool making use of the swimming lessons there. My kids and there friends have the best of time swimming there, Fridays after school. I think the indoor pool is providing the best of entertainment to senior citizens in Portsmouth and to people from other cities too. I know my mother in law looks forward to meet her friends there, spend a great time swimming and then all the beautiful ladies go out and have lunch somewhere. For them swimming is brightening their lives. It is also so convenient for the swimming team to practice there as well as it is so close to PHS. Please don't close Portsmouth Indoor Pool down. It is our pride and joy.

Comment: I Believe That adding an additional gym to the Middle School is a very bad idea for many reasons. For one just the parking is outrageous and the middle school versus the Connie Bean function as two completely different entities. Please considered keeping the Connie Bean Center open. It was mentioned that a complex was being considered on route 33 whioh would be great but lets not close everything else until it is actually built. Especially with this economy who is going to pay for this new complex. In the mean time where are our youth going to go? I would like to vote to keep the Connie Bean open and not build an additional gym/combination at Middle School. The idea of an additional gym at the school is a very poor plan. It just won't work, in additonal to adding even more cost to the building of the new school.

Comment: I tried to speak last night but I was not recognized. I think your presentation should include a full private facility and the cost to the public using it verses a public facility and the cost to the city. Maybe in a private facility scenario the city could pay the cost of city residents using the facility and not have the financial responsibility of maintainence of the facility and let the non residents pay the cost themselves. It was mentioned that the facility should be built to cover the communities surrounding Portsmouth but I disagree as any sport facility should be built for the residents, not for non residents even though the non residents pay more for the usage. We are not building for the masses but for Portsmouth.

Comment: Since no lap-pool facility 'makes money' and must be subsidized in some fashion, the compelling reason for being is its value to the community. Last night's meeting provided ample testimony to its value. Immediate attention must be paid to the Indoor Pool's roof and filtration system, while a future multi-use facility can evolve from its present situation. But close the pool entirely in four months?? It will be like a death in the family. The Recreation Committee has seriously miscalculated this one, and probably should have consulted with the members themselves before dropping this bomb. (Yes, I am not a Portsmouth resident, but I swim there five times a week and would gladly pay double for my membership.)
(City/Town: Rye)

Comment: I attended the public meeting last night (Feb 18th) re Indoor Facility Rec Study. I whole-heartedly agree that, in view of the inadequate state, inefficiencies and fragmentation of current facilities, a centralised, multi-purpose center would meet the future needs for recreation in Portsmouth. I concur with the strong feeling at that meeting that there should be a short-term transition plan to meet current recreation needs, until new facilities can be operational. At best,and in order to foster a strong sense of community, ideally the new facility would cater for all sections of the community, from pre-school through disabled and family to senior activities. Back in the UK, where I hail from, I lived in a town a little bigger than Portsmouth. Historically, the rec facilities there were also fragmented, & similarly, the time came to radically address the same issues now facing recreation in Portsmouth. The town chose to retain & upgrade a separate lap pool, but maintained other facilities until a brand new facility could be opened. This new facility includes a leisure pool with 0" entry and a wave machine, a jacuzzi, a studio & a gym (exercise machines, weights room etc); there are no ball courts or running track however. There are also family changing rooms which facilitates families attending together. There are classes (aquatic

& non-acquatic), swimming lessons, & public swimming sessions with special activites during school holidays etc. There is a very strong sense of community as people repeatedly use the facility for different activities. Also because of the wide-ranging, interesting & exciting provision, the facility draws from a greater area around the town than previously, bringing in greater revenue for the town. Should you be interested, the web link is: http://www.blackburn.gov.uk/server.php?show=nav.250 I wish the Rec Dept well in addressing the issues at hand & mindfully providing for the reacreational needs of the people of Portsmouth.

Comment: Nice job at meeting, but very narrow range of input due to pool advocates flooding the meeting hall. I would like to see more racket sports available indoors. Also think a broader survey would result in many more residents interested in some separate facilities for teens and mature adults. Goofy teens are not usually too disruptive in a pool, but can be very bad in other venues.

Comment: I would like to share with the idea collection team these two links to the web sites of facilities my family has visited in the last few years. Both do not look fancy, both are serving similar to our city areas and both combine excellent recreational opportunities for its members. Here are the links:http://www.midcoastrec.com
http://www.cedardale-health.net

Comment: We like information on groups/residents that are working on supporting the SAVING of the Portsmouth Indoor Pool. Being new to Portsmouth.....I am not sure where I should reach out to.

Comment: My thoughts on an Indoor Facility: 1. possible joint venture with the YMCA. Building on what they have and expanding facilities to meet indoor recreation needs for Portsmouth. 2. an all inclusive rec center makes the most sense to me. Building it "Green" will be costly up front, however will best suit needs in the future in case of another down turn in the economy. 3. would like to see an all inclusive rec center that is youth friendly, family friendly and adult only friendly. That being said, I would like to see an adult only facility that is separate also stay in place.(ie: Spinnaker Point) 4. sell the land/building Connie Bean center is located at... use the money towards the new indoor recreation center and or land for outdoor fields.

Comment: After attending the February 18 Indoor Facility Input Session, I have a few Comment: Last evenings presentation was very informative. However, it was difficult to grasp the idea of building a multi million dollar facility when we can't keep our current facilities going. The city of Portsmouth's track record of getting things passed in built in a timely manner is not good (library and middle school) and the citizens are right to fear closure of our current facilities while we wait indefinitely for a new, improved facility. With the current budget crisis, it is hard to imagine that kind of money would ever exist. This is a town that can no longer afford crossing guards.

The meeting last night left me with the impression that a multi use facility is what we 'have to have' to suit our needs. It seems to be a trend in other parts of the country. Mostly in other parts of the county with large, available tracts of cheap land, unlike New England. It may fit our needs, but is it feasible in our city?

Another point the consultant brought up several times was seperating adults and children's recreation. I think that combining all ages together promotes community. He spoke of 'lound and unruly' teenagers. I don't have teenagers, but still take offense to putting all teenagers in this category. I can see young and old learning from each other.

As far as replacing the Connie Bean Center, it is my hope that the city can act quickly to add a second gymnasium to the Middle School. It makes sense, as it will be highly utilized, and the Rec Department/School Athletics partnership, which is successful, can expand. It is also downtown, where people want it.

My last comment is on the pool. It is a gem in our city. Young and old come together for fun and fitness. I have met the most amazing people there, and never heard complaints. Double the fees. Charge for lessons in the summer. Give the staff time to be creative to increase the income stream. Give the community a chance to save the pool that they love.

Comment: I regret I couldn't come to the presentation Thursday. Having not attended I can't speak with authority on your needs - only as to what I feel about Portsmouth. I like the fact that Portsmouth maintains a recreational presence throughout the city. I think it creates neighborhood pride and provides access in and to the many parts of Portsmouth. I also am in great favor of shared facilities. I love that the big indoor pool is shared by city and high school. I would like to have seen the public library adjunct to a school or hospital and serving as the school/hospital library as well. As an aside - our public library is exceptional in its efforts to be an integral part of the community - offering meeting rooms etc. - this is anything but a criticism of the library - just the recognition that shared facilities create savings and give greater awareness to users of activities going on throughout the city. Portsmouth does an outstanding job of providing recreational activities to its residents. It is appealing to have a central recreational complex but I wish I had been at the meeting because I can't think it would be a great savings to isolate recreation to one place and not consider the whole.

Comment: I listened to the presentation on February 18 with much interest. My question is what is the proposed user base for this comprehensive recreation facility? Has the consultant taken into account the existing private sector recreation opportunities, such as Gold's Gym and others? It seems to me that the comprehensive facility that was described would compete with these facilites. Is that what the City means to do? Or is the City merely trying to house the existing users of Spinnaker, Greenleaf, the Connie Bean and the Indoor pool under one roof? I believe that this is an important point as it speaks to the size of the facility and its impact on the City. Thank you in advance for your time.

Comment: The Portsmouth pool is of great value to non-residents. There are no similar facilities in southern Maine and we support the efforts to save the pool. Please don't make a hasty decision to destroy a major recreational activity for so many. Run it like a business, change the fee structure, solicit grants and fundraising, increase the marketing but please know that its not just Portsmouth that is saddened by this prospective loss. I swim there three days a week and my children have learned to swim there. In the winter, it is a refuge for those of us who require physical activity in the cold weather. Please enlist the local supporters to save the Indoor pool.
(City/Town: Cape Neddick, ME)

Comment: I write this letter as a plea to rethink your decision to close the Portsmouth Indoor Pool. [ ] The first and only place I thought to go was the Portsmouth Indoor Pool which had been a place of solace and recreation in the past. I swam at the pool in my twenties back from the Peace Corps making decisions about a life path. I swam at the pool while in graduate school. Throughout my life the Portsmouth Pool has been my go-to place, my safe place. How many others like me behind the veil of memory, come back again and again to this pool . . ?
Growing up in Portsmouth, we prided ourselves on the history of place and the sanctity of the history held within the walls of each elder building. Why now has Portsmouth forgotten its covenant ? Who are you to take away my history of place? Strawberry Banke's original residents inherit more value than I? Granted, my places are simple—Pic 'n Pay (Hannaford Supermarket), the Portsmouth Public Library, Whipple School and Little Harbour School, Portsmouth Junior High School, Portsmouth High School and the Portsmouth Indoor Pool. These are my history and will you take them away yet preserve historic places long forgotten by the living? If telethons can raise millions for Katrina victims and Haiti disaster survivors, surely something could be done to raise money for our pool. And if you swim there you know that none of the local health clubs offer an Olympic sized pool and what is more, none bears the living history every child, teen and adult who call this pool home carries in their hearts. Please let me know what I can do to save our pool.

Comment: Thank you for eliciting feedback. It seems to me that Membership for portsmouth residents to Spinnaker Point Center is ridiculously cheap. And free memberships for city employees is over-the-top in today's economy. The pool is too small to accomodate children, groups, lessons. Perhaps increasing the Membership Fee and charging city employees would produce the revenue to repair the downtown pool.

Comment: I swim and use the track at Spinnaker Pt, and think highly of it. I would be willing to pay a bit more to do this. I also support repairing the h.s. pool and raising the fees there. Goal would be to keep it going until if and when a central facility is built. A major capital campaign with help from private financing would be essential. City could not do it on its own.

Comment: Please, please keep the Indoor Pool open ! I was unable to attend the Feb. 18th meeting and do not know exactly what transpired but I strongly urge you to keep the Indoor Pool open. Many of us from York, Maine to Rochester to Newburyport, MA use the indoor pool for exercise and health benefits. (I have been a member for over 15 years.) It is a wonderful facility which is expertly maintained.

I know funding is an issue but there must be ways for us to increase revenues and possibly decrease costs. What about allowing other towns to "share" resident fees ?? How about corporate sponsorship ?? (Liberty Mutual is spending lots of money to expand in Boston. They could be asked to spend a little, in good faith, in Portsmouth as well.) How about charging those who frequently conduct "lessons" while the rest of us swim on our own ?? Can other city projects (like brick sidewalks) be reduced if not eliminated to save costs ??

I know deciding on the pool's fate is not an easy one but for the sake of so many of us (and our health) I ask you to keep it open until another facility is built (if that is the case.)
(City/Town: Hampton)

Comment: I have recently discovered the indoor pool since beng laid off 11/09. Great community and facility with weights, ot tub and clean private locker room. Ideas for a new combined facility: adult only locker rooms with pivate showers and changing area, racketball, bike path to Pease for safe biking and in line skating.

Comment: I attended the Feb 18 mtg to gather input on a new rec center. I swim at the indoor pool 3 times a week on average through out the year. I swim with the adult swim class/masters mostly. Most classes we are packed to the gills with 6-8 people in the lane. If there were a new pool built, it would be great to have 8 lanes available to spread everyone out.

Comment: I am a city resident and have been for many years. I lived in this area in 1998-2000. I left Portsmouth and the US to live and work overseas. When I was getting ready to end my travels abroad it was an easy decision for me to move back to Portsmouth. I'd like to make it clear that I didn't have to move back here, I chose to. I had no job and no home tying me to Portsmouth. I came back because of my previous experience of living in Portsmouth. I have lived in 5 states and 5 countries and none of them felt like home to me except Portsmouth.

What brought me back here was the amenities this town had to offer and the people. The recreation facilities being one of those key benefits. I am young(ish) and plan on starting a family in the next couple years. We bought a house here over two years ago. It seems like our taxes have gone up every six months since we bought the place. We at least know that we are benefitting in some ways from our tax dollars. As of now I don't benefit from the schools, I rarely use the new library (choosing instead to buy books at our downtown bookstores), I don't see the fountain in front of the fire station, but I am okay with

my tax dollars paying for these things if I benefit from something the town has to offer. I try to buy local, I eat local and I do most of my shopping local. I try to do everything I can to support this town.

One of the things that gives me the greatest joy, especially in the winter is swimming. I used to run until stress fractures in my shins stopped me. I got an email from friend about the adult fitness swimming at the Portsmouth indoor pool. I was instantly hooked. I swim 2-3 days a week. The health benefits of swimming are numerous.

Instead of just simply closing the pool we need to at least try to close the deficit. We haven't been given that chance. I agree with all the proposals posted in the other letters. We need to get the word out about the pool. We could do fund raising, increase fees and get more people into the pool. I'm having trouble understanding why we haven't tried these things. Its seems to me we should at least make and effort rather than just closing the pool. I know a lot of people don't even realize all the programs the pool has to offer.

I applied to be on the recreation board during the last November elections. I got a letter stating you ahd received my application, but then I heard nothing. If I had been givin the opprotunity to be part of the recreation board I would have already have found ways to raise money for the pool.

Comment: The Indoor Rec Meeting on 2/18 mostly heard input about saving the Portsmouth pool. I use the SPARC and would like to see that facility, or at least one indoor facility remain "adults only." Also, I was hoping there would be a written survey for users to fill out regarding Indoor Recreation. Please consider putting survey forms at all current facilities. If neighboring towns won't pool resources to fund facilities, then we should be charging non-Portsmouth residents much higher fees. Think the SPARC fees should also be increased for residents and non-residents.

Comment: I would love to have a combined recreation facility if it included a lap pool (and our existing pool remained open in the mean time). I have lived in two communities planning recreation facilities (in Colorado) and it was a battle to include a lap pool because of the expense but both facilities were extremely glad they did. If lazy rivers/other features help draw people in from outside the community and pay for a facility—great. But my first priority is to provide fitness/competitive sport opportunities for kids and adults--activities that encourage kids to stay active and fit. We may have to subsidize these features, but if they keep kids fit we won't have to pay for their insulin later. I would prefer a facility that allowed people of all ages (not youth/adult separate).

F. Synthetic Turf Data

The Consultant Team received a number of questions, from The City of Portsmouth staff and Portsmouth residents regarding Synthetic Turf safety.

Numerous studies have been conducted and vast amounts of material are available on-line for those interested in learning more about the synthetic turf products on the market.

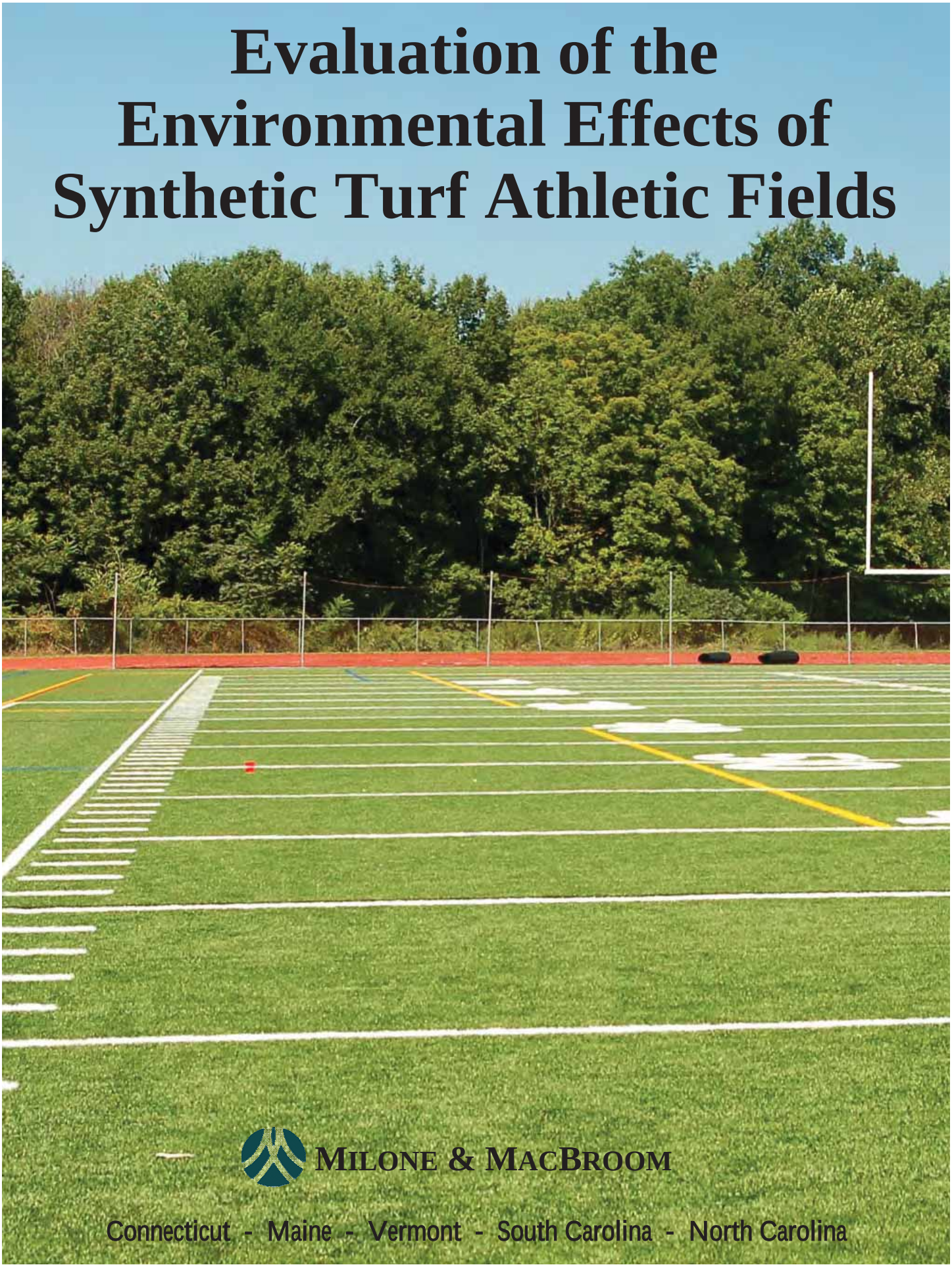
The following documents are provided in response to requests for basic data on product safety:

1. Milone & MacBroom "Evaluation of the Environmental Effects of Synthetic Turf Fields"
   This report provides information related to temperature, lead content, and storm drainage concerns.
2. United States Environmental Protection Agency "A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds"
   The USEPA has conducted a Scoping-Level study of Synthetic Turf. In the interest of keeping this document brief, the cover, table of contents, and executive summary of the resulting report have been provided. The full report can be found at:

   http://www.epa.gov/nerl/documents/tire_crumbs.pdf

3. U.S. Consumer Product Safety Commission News Release

Evaluation of the Environmental Effects of Synthetic Turf Athletic Fields



MILONE & MACBROOM

Connecticut - Maine - Vermont - South Carolina - North Carolina

PREFACE

Evaluation of the Environmental Effects of Synthetic Turf Athletic Fields

Over the past year or so, Milone & MacBroom, Inc. (MMI) conducted a variety of tests of synthetic athletic fields in Connecticut in an attempt to contribute to the discussion regarding potential risks to the environment and human health associated with such facilities. In 2007, laboratory tests at the Connecticut Agricultural Experiment Station (CAES) raised a number of questions concerning the safety of such fields. As a company that advises clients and designs athletic fields using both natural grass and synthetic surfaces, Milone & MacBroom, Inc. believed that it would be prudent to undertake some first-hand observations and to become more confident that published literature was applicable to synthetic surfaces in the northeast.

When reading these papers, there are two points that should be clearly understood. First, by undertaking these studies, we are not promoting the installation of synthetic fields but recognize that they are a legitimate alternative to natural grass in some instances. Second, the cost of the testing was totally paid by Milone & MacBroom, Inc. and that the synthetic turf industry has had no involvement whatsoever in our testing program. We did consult, however, with representatives of the Connecticut Department of Public Health regarding testing protocols to be sure that our methodologies and the results of our efforts would be useful to the regulatory community.

The three areas of concern that Milone & MacBroom, Inc. addressed were water quality from the runoff that passes through the synthetic turf, the temperature of the surface of the turf, and the air quality on and surrounding the synthetic field. The questions we sought to answer are:

- Does the temperature of the synthetic field become excessively hot in summer months?
- Does the crumb rubber infill material have an effect on air quality?
- Do metals leach from the crumb rubber infill material at a level that would adversely affect the quality of water?

To address these issues, Milone & MacBroom, Inc. conducted three separate studies at locations where synthetic fields had been recently installed. The sites were selected for two reasons. First, we were able to secure permission from the owner of the fields to conduct the necessary tests. Second, we were familiar with the sites and understood how the fields were constructed and the materials that were used in the construction. The water quality monitoring was initiated in late 2007 and continued into the fall of 2008. The testing and observation of the temperature and the sampling of the air were done in mid-summer 2008. The results of the testing are presented in three separate documents as follows:

- **Thermal Effects Associated with Crumb Rubber In-filled Synthetic Turf Athletic Fields**
- **Evaluation of Benzothiazole, 4-(tert-octyl) Phenol and Volatile Nitrosamines in Air at Synthetic Turf Athletic Fields**
- **Evaluation of Stormwater Drainage from Synthetic Turf Athletic Fields**

We hope that our efforts will be useful to public officials and the consumer when evaluating which type of playing surface best suits their athletic field program needs.

Please contact Vince McDermott with any questions or to request additional copies of the research conducted by Milone & MacBroom, Inc.

Milone & MacBroom, Inc.
99 Realty Drive
Cheshire, Connecticut 06410
T 203.271.1773
F 203.272.9733

About Milone & MacBroom, Inc.

Milone & MacBroom, Inc. is a privately-owned, multidisciplinary consulting firm founded in 1984. The firm maintains a staff of over 145 technical and administrative personnel, with its main office located in Cheshire, Connecticut, and regional offices in Stamford and Branford, Connecticut; Greenville, South Carolina; Raleigh, North Carolina; Freeport, Maine; and South Burlington, Vermont. The team of professionals at Milone & MacBroom, Inc. is committed to building strong partnerships with our clients to deliver creative solutions that are technically sound, cost-effective, and environmentally sensitive. We strive to integrate the disciplines of engineering, landscape architecture, and environmental science in an exceptional work environment that is founded upon respect among ourselves, our clients, and our professional colleagues.

Thermal Effects Associated with Crumb Rubber In-filled Synthetic Turf Athletic Fields

Scott G. Bristol, LEP
Vincent C. McDermott, FASLA, AICP

Milone & MacBroom, Inc.
99 Realty Drive
Cheshire, Connecticut 06410

Substantial focus has been given to possible environmental effects associated with the installation of synthetic turf athletic fields. Questions concerning the potential health effects have been raised by several groups. Generally, these questions have been related to claims that insufficient data has been collected to reach a conclusion regarding possible detrimental health effects. One component of these claims is the question concerning the effect of solar heating on the fields and in particular upon the crumb rubber that is used as in-fill material (Figure 1). A temperature evaluation study was designed and conducted to determine the temperature rise of the synthetic materials under a number of conditions.

Two fields within Connecticut were selected for this study. Both fields were constructed by FieldTurf in 2007. One field, identified as Field F, is located in the northern portion of the state, while Field G is located in the southern portion of the state. Selection of the fields was based upon the ability to obtain permission to perform the testing and was not based upon manufacturer or geographic location. Temperature monitoring occurred on June 10 and July 11, 2008, at Field F and on June 17, 2008, at Field G.

During the testing procedure, the air temperature was monitored at two elevations directly over the synthetic playing surface and at a location adjacent to the synthetic surface but within an area of natural grass. Also measured during the testing were the temperatures of the crumb rubber

Figure 1

and the surface temperature of the polyethylene and polypropylene blended fibers used to simulate grass. Additional measurements were made of the soil at various depths in the area of the natural grass and the surface temperature of the natural grass itself. The air temperatures were measured using six-inch Enviro-Safe Easy Read Armor Case thermometers with a protective plastic jacket. These thermometers have a working temperature range of 0 degrees Fahrenheit (° F) to 220° F with two-degree graduations and are National Institute of Standards and Technology (NIST) certified. The thermometers were suspended within Styrofoam insulating cylinders. The inside dimensions of the cylinders were approximately $3^{3}/_{8}$ inches in diameter by 7¼ inches tall. Outside dimensions were approximately 4¼ inches in diameter by 7¾ inches tall. Twelve one-half inch holes were drilled into four sides of the cylinders to allow for airflow through the cylinder while still providing protection from the heating effect of the sunlight (Figures 2 and 3).

Figure 2

Figure 3

The Styrofoam cylinders were then mounted to a wooden pole measuring approximately 1¾ inch x 1¾ inch x 5½ feet tall using plastic wire ties (Figure 4). Each pole was then mounted to a metal and wooden surveyor's tripod (Figure 5).

Figure 4

Figure 5

The surface temperatures of the natural grass and the synthetic fibers were measured using an infrared thermometer manufactured by EXTECH Instruments (EXTECH Pocket IR thermometer). The thermometer has a stated sensing range of -58° F to 518° F with an accuracy of +/- 2.5% of reading plus three degrees.

The temperature of the soil and the crumb rubber in-fill material was measured using a digital pen thermometer with a stated sensing range of -58° F to 536° F in 0.1-degree divisions with an accuracy of one degree. The sensing probe measured eight inches long and was constructed of stainless steel.

Methodology

The temperature monitoring stations were placed to allow a comparison of temperatures between the synthetic and natural turf surfaces. One station was placed in the center of the synthetic turf field, while the second station was placed approximately 50 feet (Field G) or 125 feet (Field F) away from the synthetic surface on natural turf. The natural turf monitoring station was located based upon the location of nearby structures (bleachers, parking lots, synthetic running track surfaces) that had the potential to affect the temperature readings (Figure 6).

Figure 6

Air temperatures were measured at two feet and five feet above the ground surface during the June 10 and June 17, 2008, monitoring events. The methodology was adjusted for the July 11, 2008, event, at which time the temperatures were measured at one foot and five feet.

Surface temperatures of both the synthetic "grass" fibers and the natural grass were measured using the infrared thermometer, while soil and crumb rubber temperatures were measured using the digital pen thermometer.

The air temperature measured at a distance of five feet above the natural turf was assumed to best approximate the actual ambient air temperature at the location of the monitored field.

Results

June 10, 2008

Temperature measurements were obtained at Field F on June 10, 2008. Official temperature data for this date was obtained from Weatherunderground.com for Bradley International Airport in Windsor Locks, Connecticut. The official high temperature was 98° F. Additional temperature and wind data was obtained from a private weather station associated with Weatherunderground.com. This weather station is located approximately 2.3 miles from Field F. A high temperature of 95.6° F and maximum winds of three miles per hour (mph) were recorded at this station during the study time period. Skies were clear throughout the study.

Collected data indicated that the air temperature as measured at a distance of two feet above the synthetic turf surface ranged from one to five degrees greater than the observed ambient air temperature, while the temperature at the same height above the natural turf ranged from 3° F lower to 1° F greater than the ambient air temperature (Figure 7).

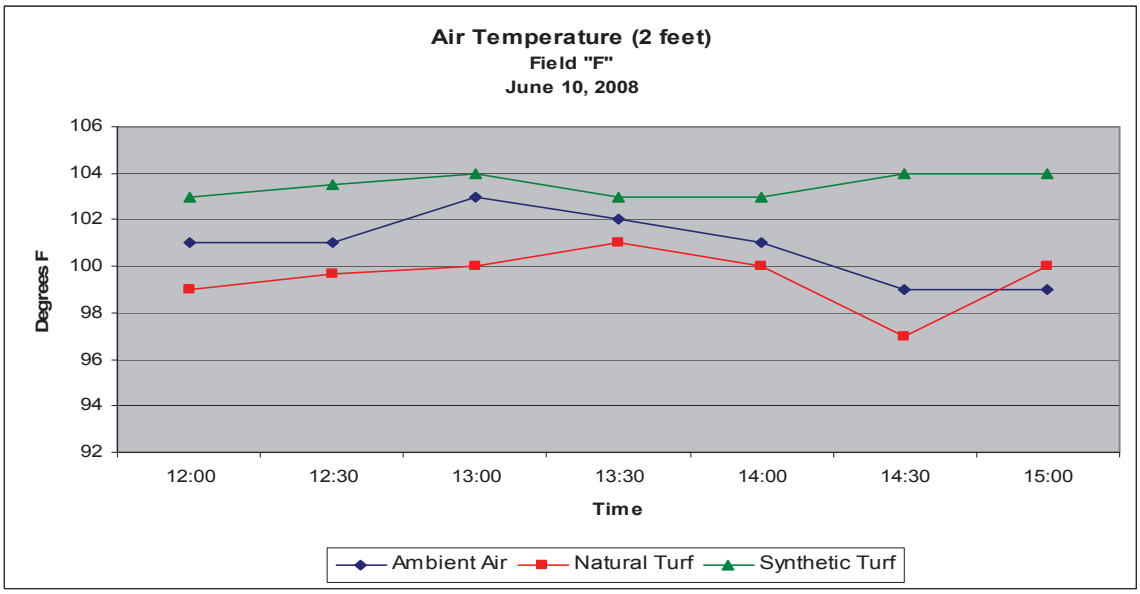


Figure 7

The measured air temperature at a height of five feet above the synthetic turf more closely approximated the ambient air temperature. Measured air temperatures ranged from 2° F lower to 2° F greater than the ambient air temperature (Figure 8).

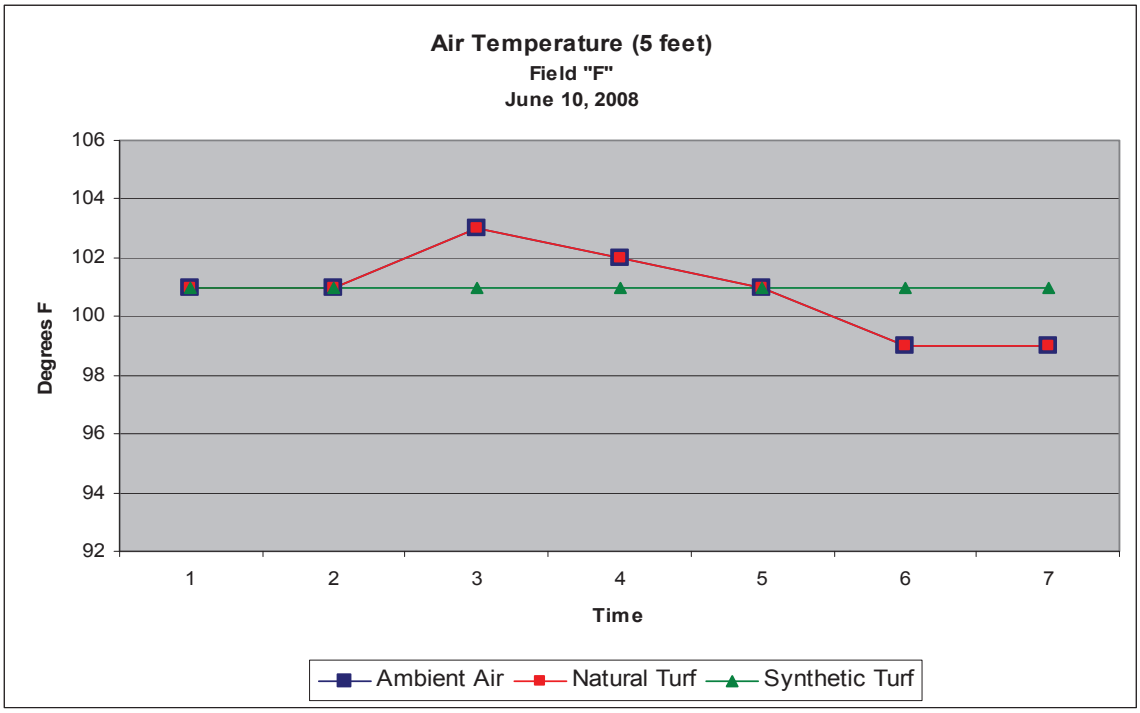


Figure 8

Note in Figure 8 the temperature identified as the ambient air temperature is the same as the temperature measured at a distance of five feet above the natural turf.

The temperature observed for the surface of the synthetic "grass" fibers was measured using an infrared thermometer and compared to the observed air temperatures and also the temperature of the crumb rubber in-fill material as measured at a depth of one inch. The surface of the synthetic fibers reached a maximum temperature of 156° F. The crumb rubber reached a maximum temperature of 111.5° F or approximately 44 degrees cooler than the surface temperature of the synthetic "grass" fibers. As noted above, the elevated temperature of the fibers did not result in a significant elevation of the air temperature above the synthetic field as compared to the air temperature over the natural grass field (Table 1 and Figure 9).

Table 1

Time of Day (hrs)	Ambient Temperature	Synthetic Turf Temperatures			
		Surface Temperature Synthetic "Grass" Fibers	Crumb Rubber Temperature (1 inch depth)	Air Temperature 2 feet above surface	Air Temperature 5 feet above surface
	°F	°F	°F	°F	°F
12:00	101	153	102.5	103	101
12:30	101	155	103	104	101
13:00	103	151	104.5	104	101
13:30	102	156	111.5	103	101
14:00	101	154	109.5	103	101
14:30	99	138	107.2	104	101
15:00	99	149	105.8	104	101

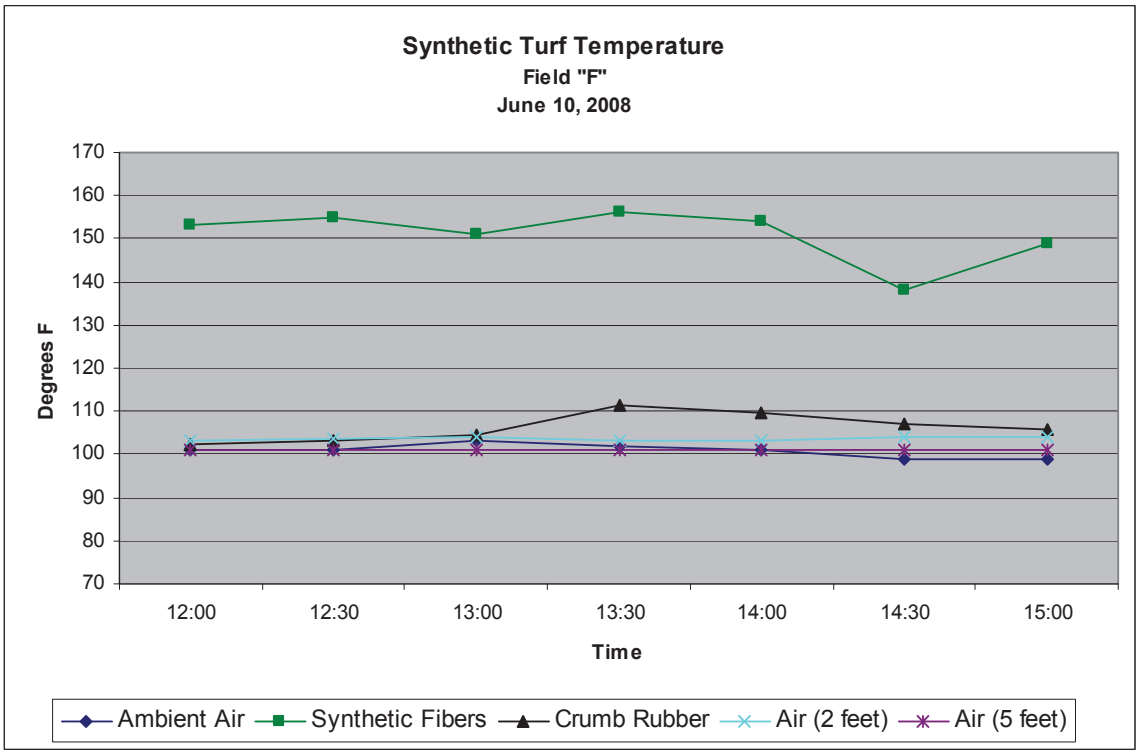


Figure 9

Temperatures measured in the area of the natural turf indicated that the surface of the natural grass blades closely approximated the ambient air temperature. The grass blades ranged from 3° F cooler to 5° F warmer than the measured ambient temperature. Soil temperatures were determined to decrease with increasing depth. The highest soil temperatures were noted at the end of the study period with a maximum temperature of 90.1° F being measured at 15:00 at a depth of one inch below the surface. The temperature of the soil at that depth increased approximately nine degrees over a span of three hours, while the temperature at a depth of six inches increased just two degrees.

Table 2

Time of Day (hrs)	Ambient Temperature	Natural Turf Temperatures						
		Surface Temperature Natural Grass	Soil Temperature			Air Temperature 2 feet above surface	Air Temperature 5 feet above surface
			1 inch depth	3 inch depth	6 inch depth		
	°F	°F	°F	°F	°F	°F	°F
12:00	101	100	81.5	78.8	77.3	99	101
12:30	101	101	86.5	79	77.3	99.7	101
13:00	103	102	89.2	79.8	77.3	100	103
13:30	102	99	86	81.6	78.2	101	102
14:00	101	101	89.4	82.5	79.5	100	101
14:30	99	104	87	81	78.9	97	99
15:00	99	100	90.1	85.1	79.3	100	99

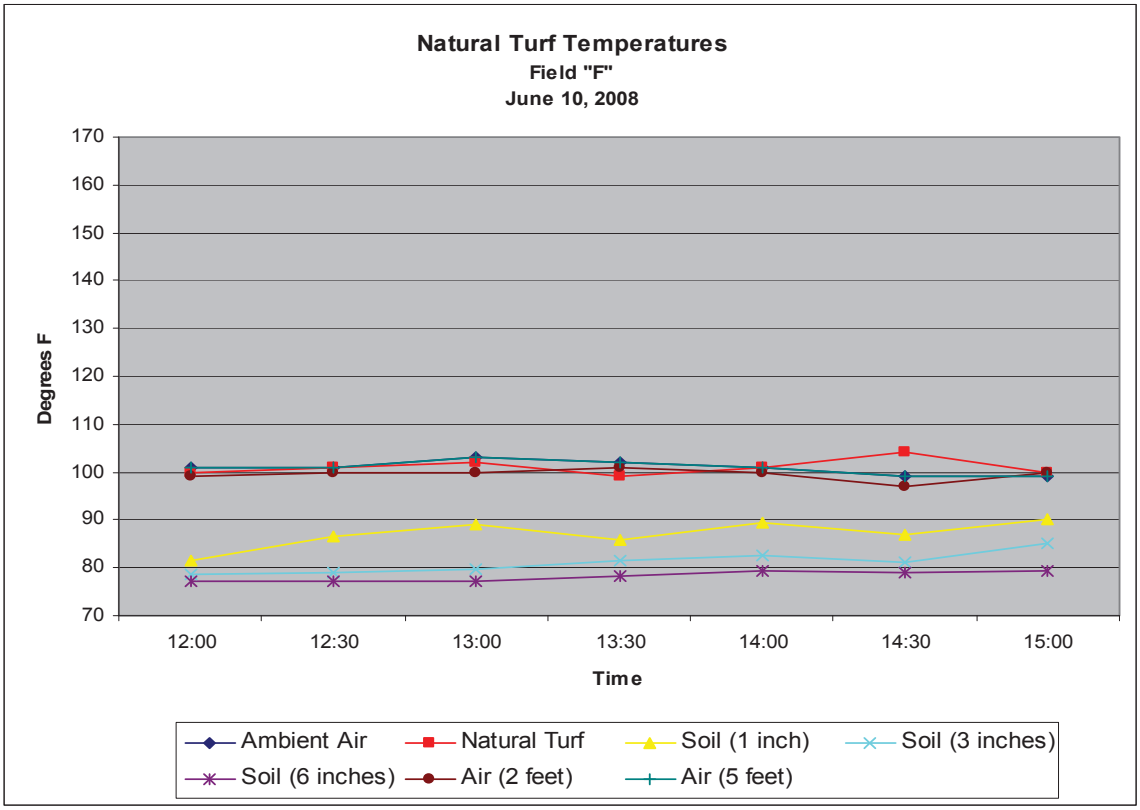


Figure 10

June 17, 2008

Temperature measurements were obtained at Field G on June 17, 2008. Field G is located in the southern portion of Connecticut and is believed by the authors to be susceptible to localized weather variations caused by Long Island Sound. Once again, temperature and wind data were obtained from a private weather station associated with Weatherunderground.com and located approximately 1.5 miles from Field G. A high temperature of 75.7° F and maximum winds of four mph were recorded at this station during the study time period. Intermittent clouds and sunshine were noted during the study period.

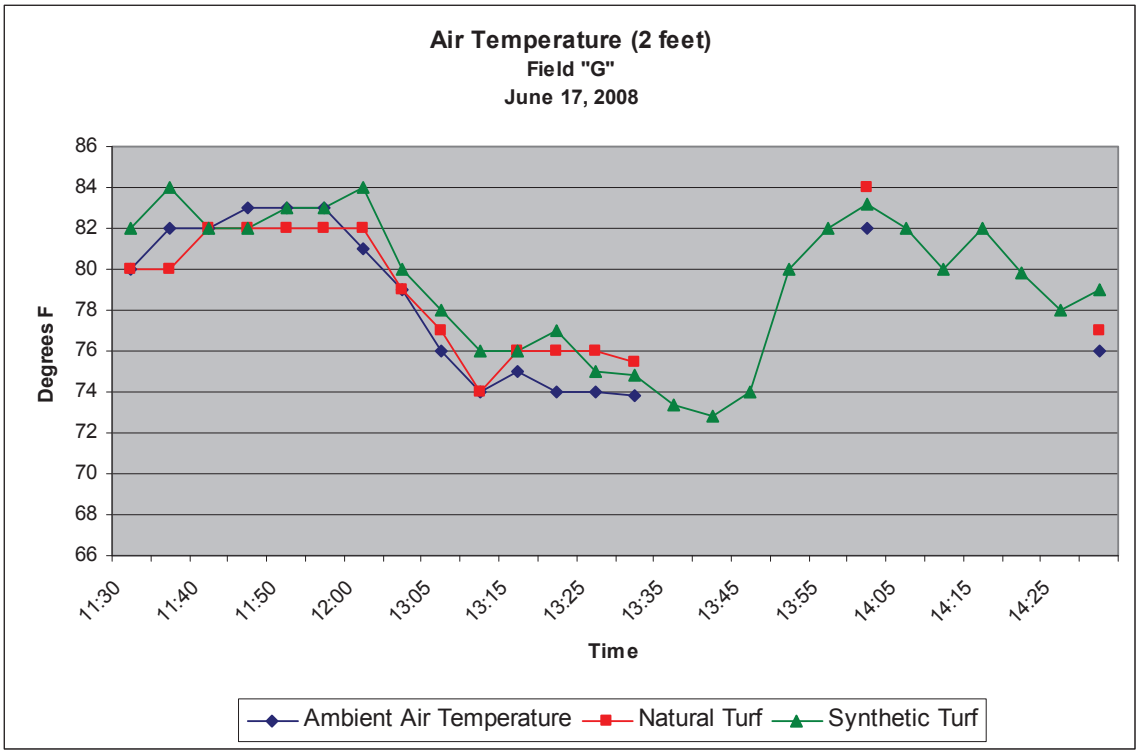


Figure 11

Collected data indicated that the air temperature as measured at a distance of two feet above the synthetic turf surface ranged from 0 degrees to three degrees greater than the observed ambient air temperature, while the temperature at the same height above the natural turf ranged from 2° F lower to 2° F greater than the ambient air temperature (Figure 11). The air temperature two feet above the synthetic turf field was generally two degrees to four degrees greater than the temperature above the natural turf.

The time period between approximately 13:00 and 13:45 was characterized by clouds. The cooling effect of the cloud cover can be clearly noted in the data. This effect is also noted in the graph of the air temperature at five feet above the fields. At this height, the air temperature above the synthetic turf was generally two to three degrees greater than the natural turf field.

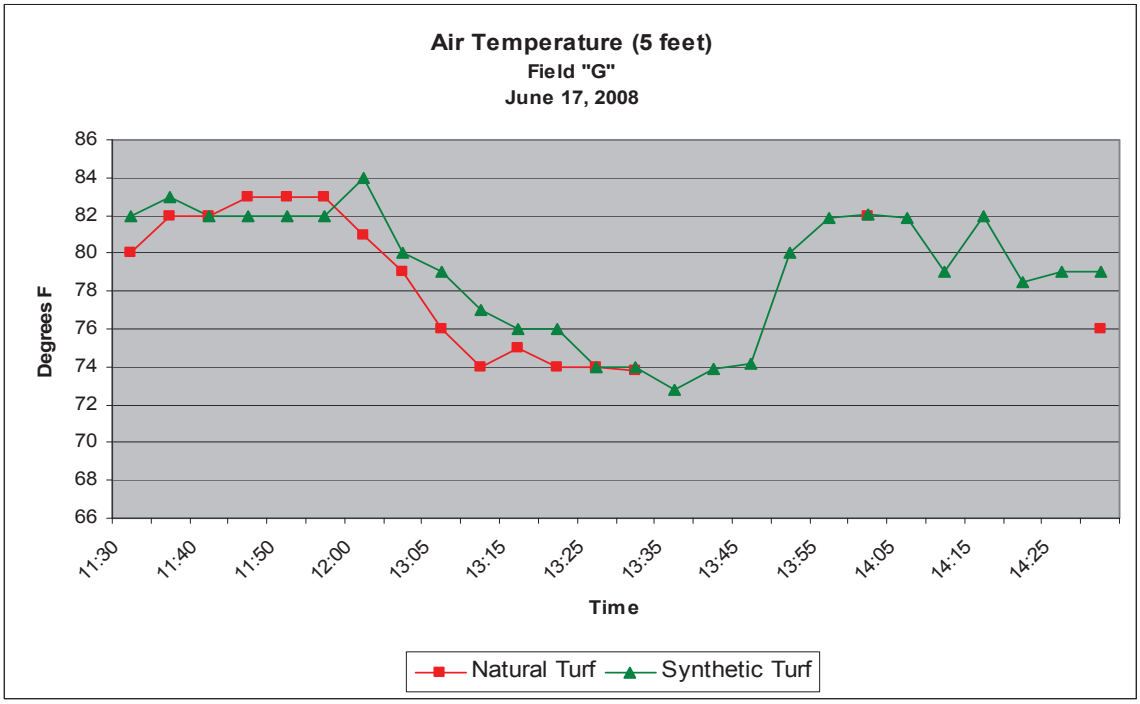


Figure 12

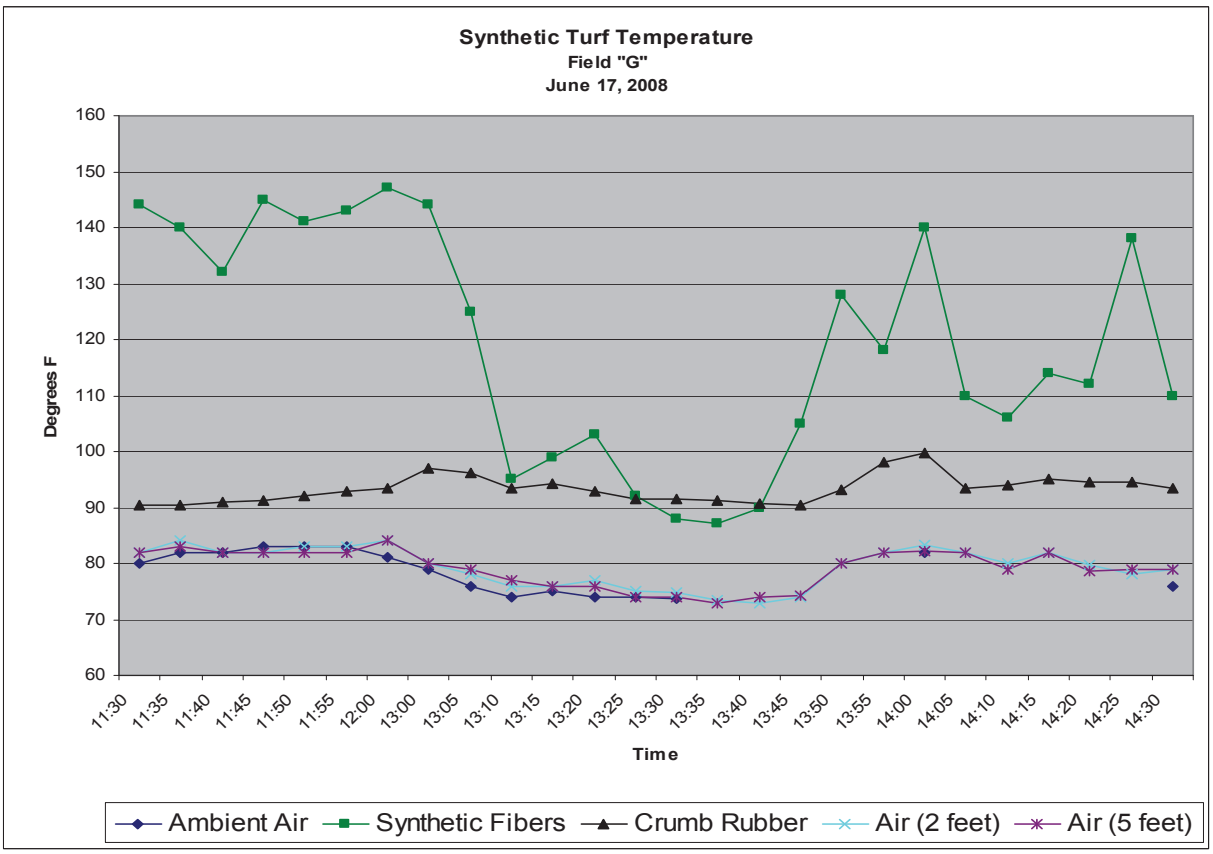


Figure 13

The results of the measurements of the temperature of surface of the synthetic "grass" fibers were similar to those obtained for Field F. A maximum temperature of 147° F was noted during periods of sunshine. The temperature dropped rapidly during cloudy periods and reached a minimum temperature of 87° F or approximately 15 degrees greater than the observed ambient air temperature. The crumb rubber in-fill material maintained a relatively steady temperature and averaged approximately 93° F or approximately 15 degrees greater than the average ambient air temperature (Figure 13). Once again, the elevated temperature of the fibers did not result in a significant elevation of the air temperature above the synthetic field as compared to the air temperature over the natural grass field.

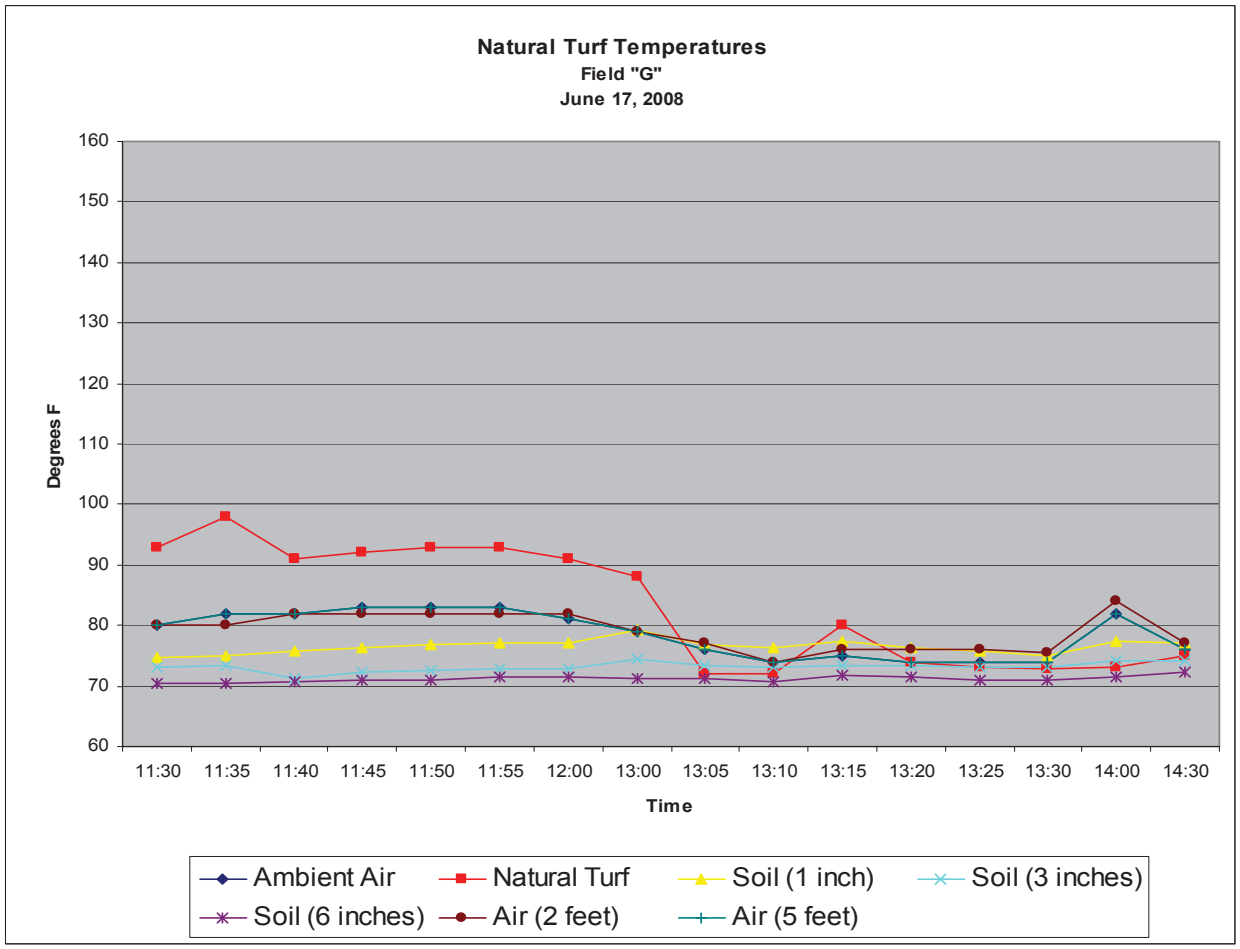


Figure 14

Measurements in the area of the natural turf near Field G indicated that the surface temperature of the natural grass blades was approximately 10 to 15 degrees greater than the ambient air

temperature during periods of sunshine. The temperature decreased quickly to nearly the ambient air temperature once cloud cover was present. The soil temperatures were nearly constant throughout the monitoring period and averaged approximately 74° F (Figure 14).

July 11, 2008

The temperature monitoring was repeated at Field F on July 11, 2008. The exception to the above procedures was that the air temperature was measured at heights of one foot and five feet above the synthetic turf and the natural turf fields. The results are detailed in Figures 15 through 19 below. As noted previously, the elevated surface temperature of the synthetic "grass" fibers appeared to have minimal effect on the air temperature directly over the synthetic turf field. Likewise, only a moderate rise in the temperature of the crumb rubber was noted. The temperature rise noted at one foot above the synthetic turf field was generally two to four degrees as compared to the measured ambient air temperature, although a maximum of a nine-degree rise was noted to occur over a short time period early in the study. The temperature rise noted at five feet above the synthetic turf surface was generally between one to five degrees, which is comparable to the previously observed measurements.

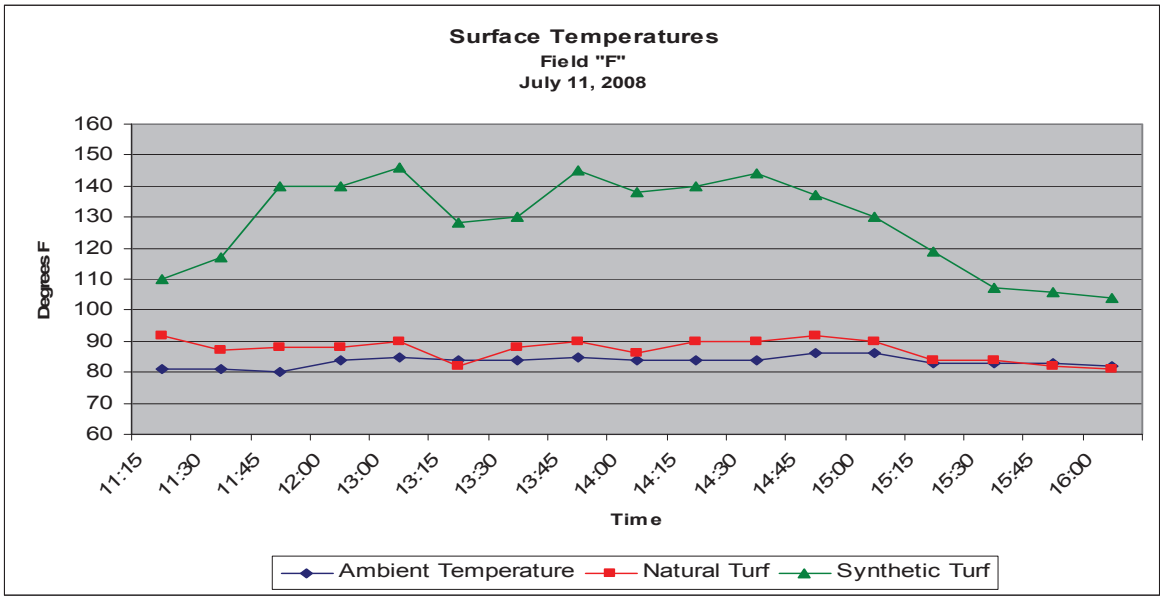


Figure 15

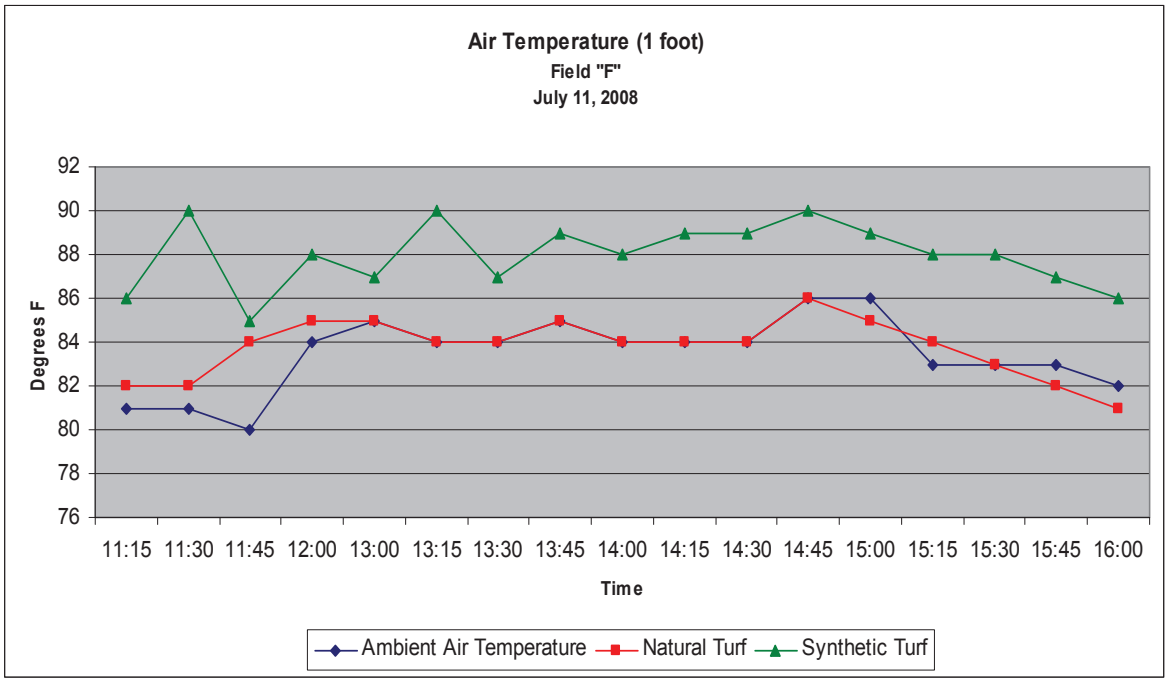


Figure 16

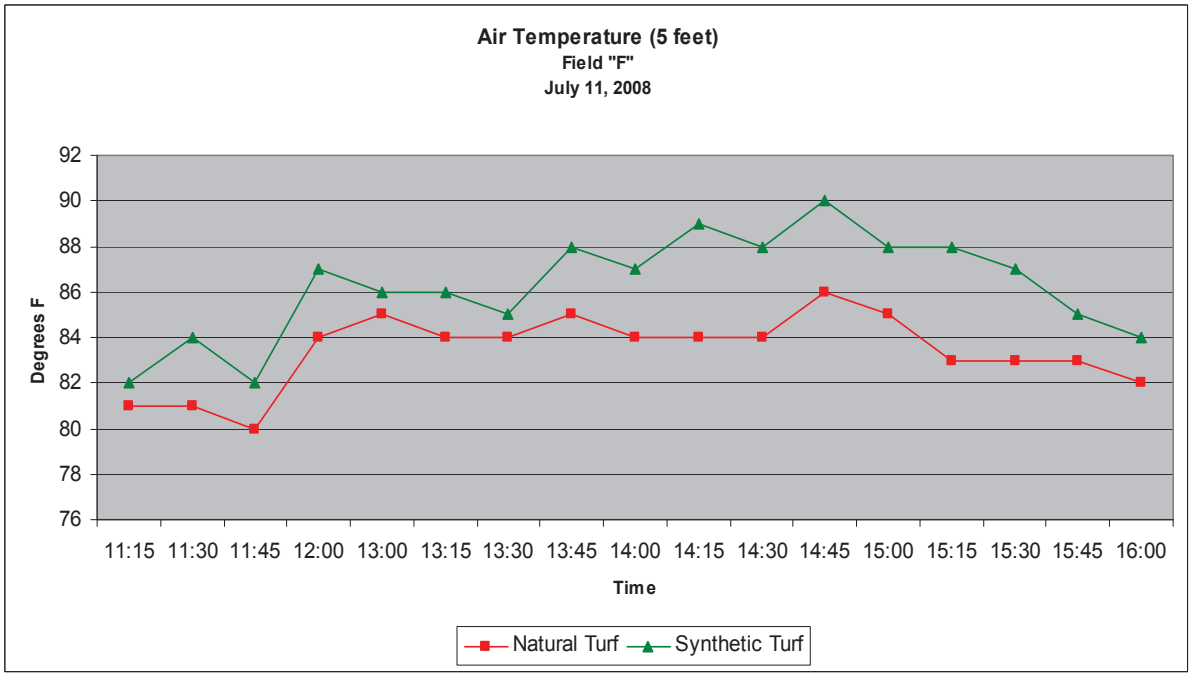


Figure 17

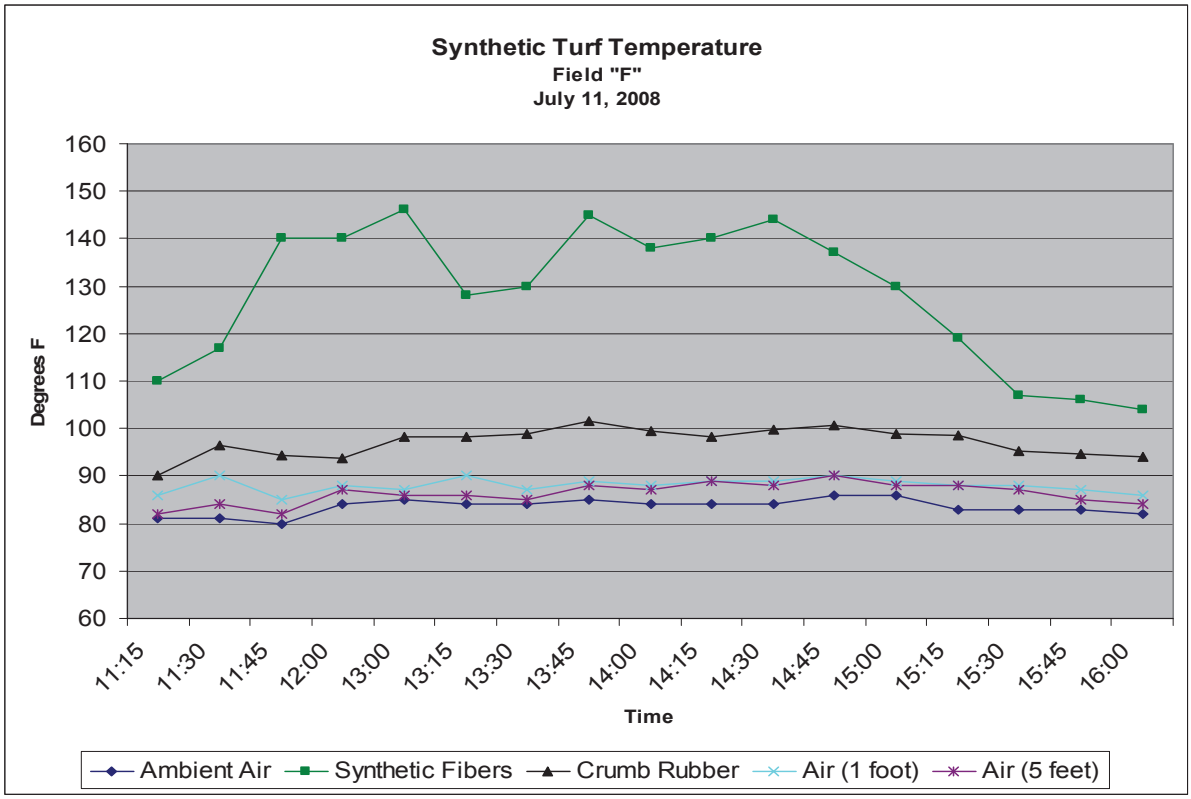


Figure 18

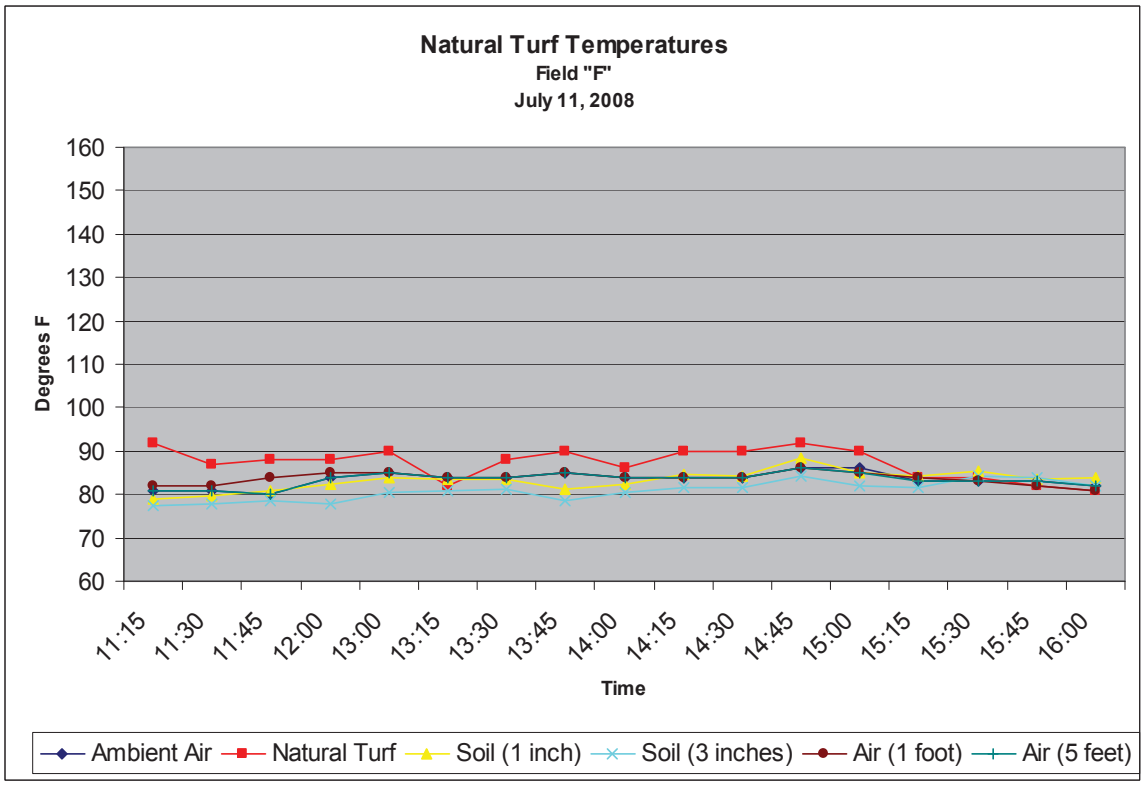


Figure 19

The sampling methodology on this date was also adjusted to evaluate the potential cooling effect due to the evaporation of water from the synthetic "grass" fibers. Two squares measuring one foot square were cut from a single sheet of white foam board (Figure 20). The surface temperature of the synthetic fibers was then measured using an infrared thermometer. One square was kept dry while the other side was wetted with one ounce of water using a spray bottle. The surface temperatures were measured and recorded over a period of 20 minutes. The foam board was then moved to a dry location, and the measurements were repeated using two ounces and then three ounces of water.

The results indicated that the applied water provided at least 20 minutes of effective cooling to the synthetic fibers. The amount of the cooling effect was generally between 10 and 20 degrees although slightly more of a cooling effect was noted when three ounces of water were used.

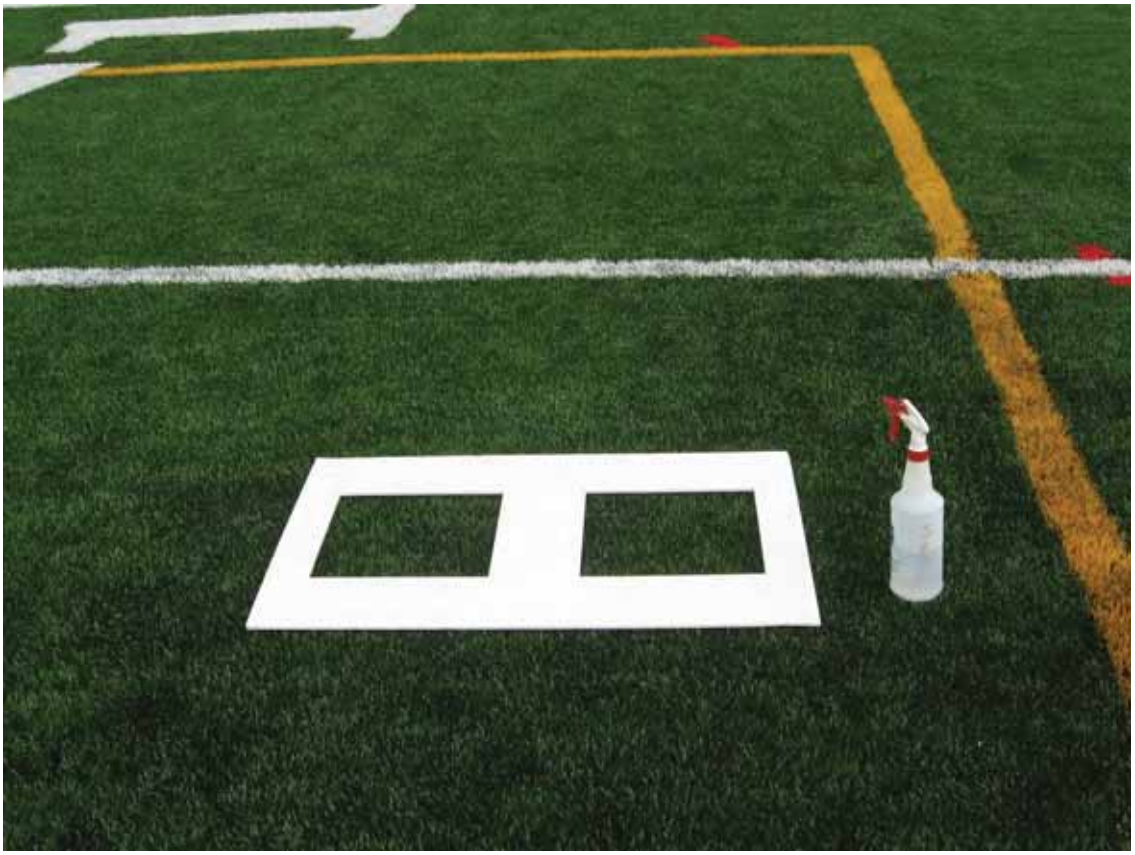


Figure 20

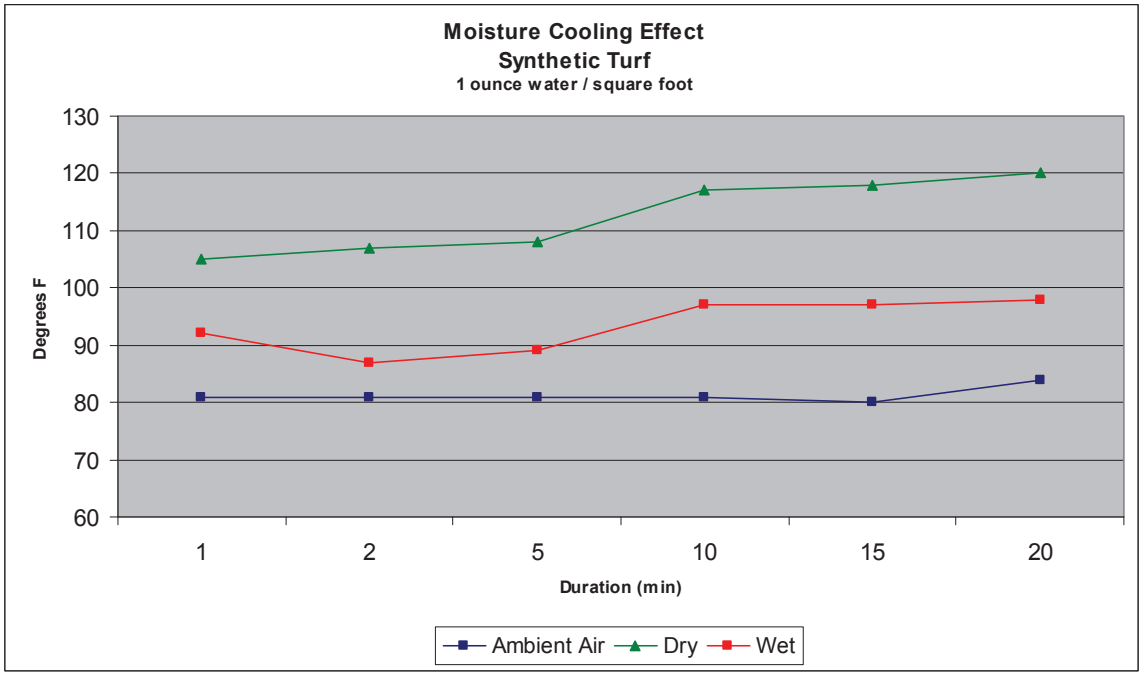


Figure 21

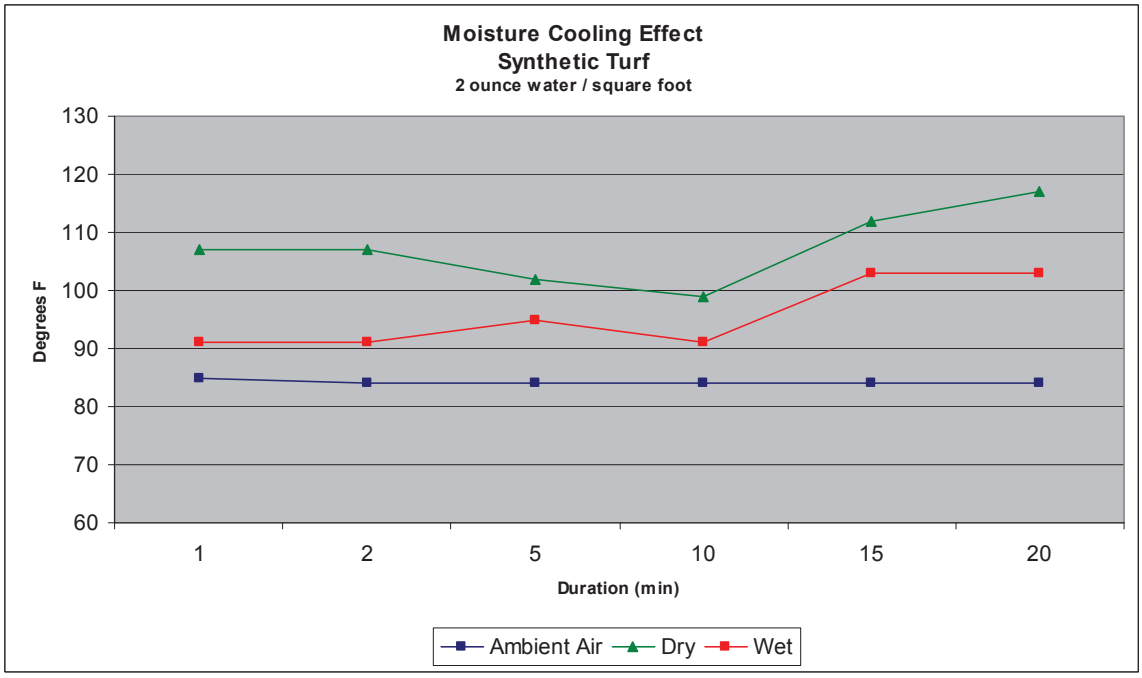


Figure 22

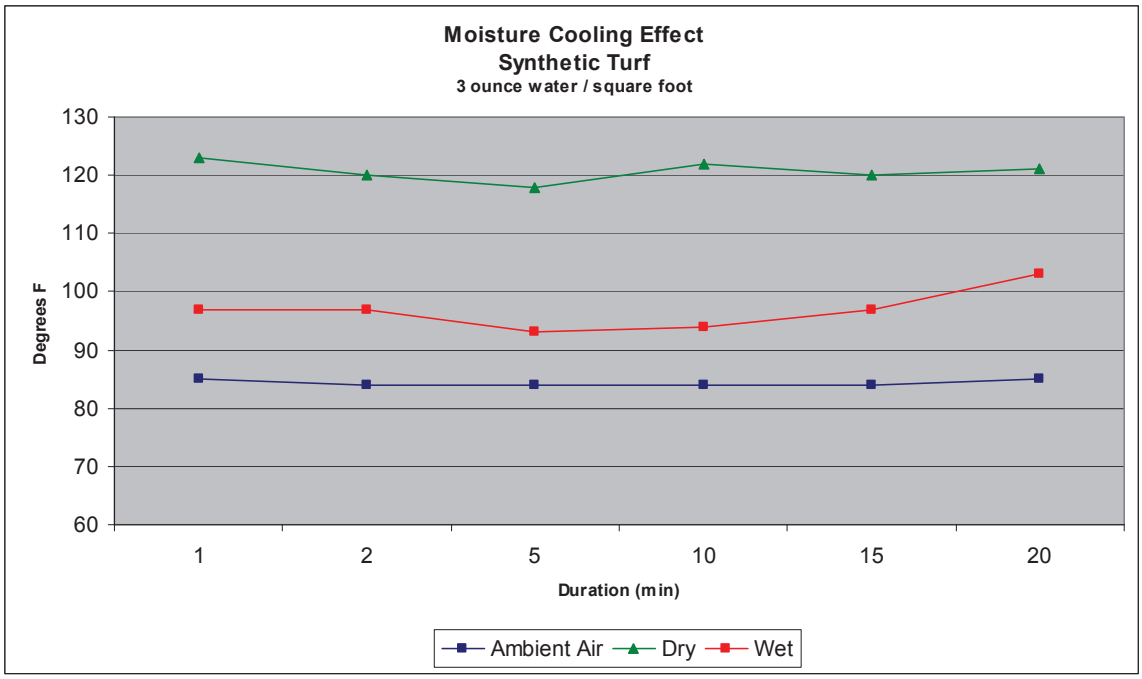


Figure 23

Summary

The results of the temperature measurements obtained from the fields studied in Connecticut indicate that solar heating of the materials used in the construction of synthetic turf playing surfaces does occur and is most pronounced in the polyethylene and polypropylene fibers used to replicate natural grass. Maximum temperatures of approximately 156° F were noted when the fields were exposed to direct sunlight for a prolonged period of time. Rapid cooling of the fibers was noted if the sunlight was interrupted or filtered by clouds. Significant cooling was also noted if water was applied to the synthetic fibers in quantities as low as one ounce per square foot. The elevated temperatures noted for the fibers generally resulted in an air temperature increase of less than five degrees even during periods of calm to low winds.

The rise in temperature of the synthetic fibers was significantly greater than the rise in temperature noted for the crumb rubber. Although a maximum temperature of 156° F was noted for the fibers, a maximum temperature of only 101° F, or approximately 16 degrees greater than the observed ambient air temperature, was noted for the crumb rubber.

Evaluation of Benzothiazole, 4-(tert-octyl) Phenol and Volatile Nitrosamines in Air at Synthetic Turf Athletic Fields

Scott G. Bristol, LEP
Vincent C. McDermott, FASLA, AICP

Milone & MacBroom, Inc.
99 Realty Drive
Cheshire, Connecticut 06410

The growing popularity of crumb rubber in-filled synthetic turf playing surfaces has resulted in questions concerning the potential resulting human health effects from the inhalation of volatile chemicals by users of those fields. A limited number of studies have attempted to identify and quantify these chemicals. One such study, conducted in 2007 by the Connecticut Agricultural Experiment Station[1] identified benzothiazole, butylated hydroxyanisole, n-hexadecane, and 4-(tert-octyl) phenol as potential chemicals of concerns. This study, however, was laboratory based and did not include collection and analysis of samples from installed fields. Another study, conducted by the Norwegian Institute for Air Research[2], evaluated the air quality at three different indoor fields.

A study was designed and conducted to specifically evaluate the possible presence of benzothiazole, 4-(tert-octyl)phenol, and volatile nitrosamines in air above recently installed outdoor, crumb rubber in-filled synthetic turf playing surfaces in Connecticut.

Field G

Methodology

Two fields in Connecticut were selected for this study. Both fields were constructed in 2007 by FieldTurf using polyethylene fiber with cryogenically produced rubber and silica sand infill. One field, identified as Field F, is located in the northern portion of the state, while Field G is

located in the southern portion of the state. Selection of the fields was based upon the ability to obtain permission to perform the testing and not based upon manufacturer or geographic location. Both fields are multipurpose fields used for sports such as football, soccer, field hockey, and/or lacrosse among others and are encircled by synthetic running track surfaces. These two fields were previously the subject of a separate study by the authors entitled "Thermal Effects Associated with Crumb Rubber In-filled Synthetic Turf Athletic Fields." The air sampling activities were conducted on August 15, 2008, at Field F and on August 18, 2008, at Field G.

Five sample locations were selected at each of the sampled fields. One location at each field was directly over the center portion of the playing surface, while the remaining four were located off the playing surface at either end or sides of the fields. These later locations were selected to provide "background" results to account for potential transport of vapors by wind and to evaluate the possible volatilization of target compounds from the running track surfaces.

A Davis Vantage Pro2 automated meteorological station was utilized to measure temperature, relative humidity, wind speed, and wind direction at the fields throughout the sampling period. The station was erected near the sampling location in the center portion of the field (Figure 1). The temperature sensor portion of the instrument was located approximately five feet above the synthetic turf surface.

Figure 1 - Meteorological Station

Additional measurements were made of the air temperature at heights of one foot and four feet above the synthetic turf surface using six-inch Enviro-Safe, Easy Read Armor Case thermometers with a protective plastic jacket. These thermometers have a working temperature range of 0 degrees Fahrenheit (° F) to 220° F with two-degree graduations and are National Institute of Standards and Technology (NIST) certified. The thermometers were suspended within Styrofoam insulating cylinders. The inside dimensions of the cylinders were approximately $3^{3}/_{8}$ inches diameter by 7¼ inches tall. Outside dimensions were approximately 4¼ inches diameter by 7¾ inches tall. Twelve one-half inch holes were drilled into four sides of the cylinders to allow for airflow through the cylinder while still providing protection from the heating effect of the sunlight (Figure 2).

Figure 2 - Styrofoam cylinders used for temperature measurements

The Styrofoam cylinders were then mounted to the metal pole supporting the weather station. The mounted cylinders can be seen in Figure 1.

The temperature of crumb rubber in-fill material was measured using a digital pen thermometer with a stated sensing range of -58° F to 536° F in 0.1 degree divisions with accuracy of one degree. The sensing probe measured eight inches long and was constructed of stainless steel.

Air samples were collected through dedicated adsorbent media with the intakes set at approximately four feet above ground surface (Figures 2 through 5). The samples to be analyzed for benzothiazole and 4-(tert-octyl) phenol were collected using XAD-2 adsorbent media (Catalog #226-30, lot 4501, expiration date April 2012) produced by SKC Inc. of Eighty Four, Pennsylvania. A minimum of 480 liters of air was pumped through the adsorbent media at an approximate rate of two liters per minute using an SKC Airlite sampling pump. A 37 mm, 2 micron PTFE filter was placed inline before the adsorbent media tube.

Figure 3 - Field Sample Location

Figure 4 - "Background" Sample Location

Figure 5 - Sampling Pumps. ThermoSorb N module on left; XAD-2 and filter on right

The samples to be analyzed for volatile nitrosamines were collected using ThermoSorb N adsorbent media produced by Advanced Chromatography Systems of Johns Island, South Carolina. A minimum of 75 liters of air was pumped through the adsorbent media at an

approximate rate of one liter per minute using an SKC Universal Pump 224-PCXR8 sampling pump.

Both models of sampling pumps have a manufacturer's stated flow rate accuracy of +/- 5%.

The intakes for all samples were set at approximately four feet above either the playing surface or the grass surface surrounding the playing field. The sampling media was connected to the sampling pumps using approximately six inches of ¼ I.D. x 3/8 OD poly tubing. The pump was calibrated prior to sampling utilizing a BIOS DryCal DC-Lite air pump calibrator. A sacrificial media tube and poly tubing was used during the pump calibration.

All samples were delivered to the Wisconsin Occupational Health Laboratory at the University of Wisconsin via overnight courier service for analysis. The analytical methods employed for benzothiazole and 4-(tert-octyl) phenol analysis were based upon NIOSH Method 2550. The samples were desorbed with 10 minutes of sonication performed three times with three milliliters (mL) of methanol. The combined methanol fractions were then evaporated to approximately 0.5 mL with nitrogen and brought to a final volume of 1.0 mL with methanol. The extracts were then analyzed by reversed phase high-performance liquid chromatography employing a 0.1 percent formic acid:methanol linear gradient program. Detection was achieved by triple quadruple mass spectrometry using multiple reaction monitoring. A reporting limit of 100 nanograms was established for the analytes based upon statistical data analysis.

The analytical methods employed for the nitrosamine analysis were based upon OSHA Method 27. The samples were with approximately three mL of methylene chloride:methanol (75:25 v/v). Extracts were analyzed by reversed phase high-performance liquid chromatography employing a 0.1 percent formic acid:methanol linear gradient program. Detection was achieved by turbo ion spray triple quadruple mass spectrometry using multiple reaction monitoring in positive ionization mode. A reporting limit of 100 nanograms was established for the analytes based upon statistical data analysis; however, any discernable peak for n-nitrosodimethylamine was reported with appropriate comment.

Results

Field F

Air sampling activities were conducted at Field F on August 15, 2008. Five discrete sample locations were chosen. One location (SF-1) was near the center to the playing surface while the remaining four locations (SF-2, SF-3, SF-4, and SF-5) were around the perimeter of the synthetic running track. The sample locations are graphically presented in Figure 6. Sampling activities were initiated at 11:40 and were completed at 16:07.

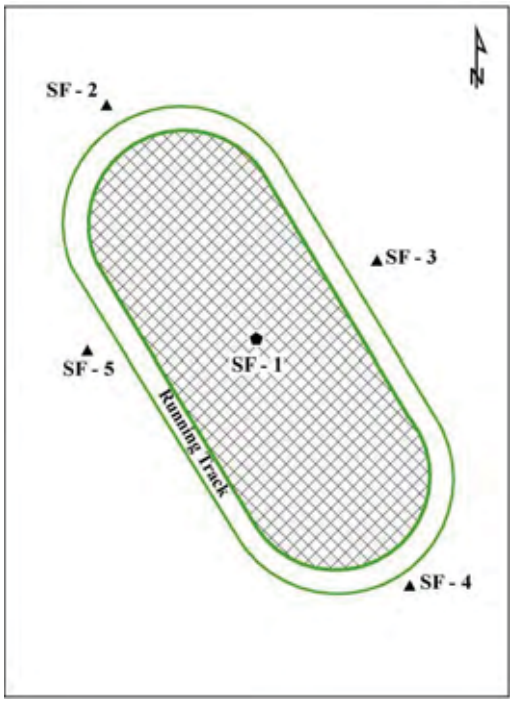


Figure 6 – Sample Locations Field F

Weather conditions on August 15, 2008, at the sample site were generally a mix of clear and partly cloudy skies with ambient air temperatures between 75° F and 80° F. Winds were generally light to calm. The late morning and early afternoon winds were measured

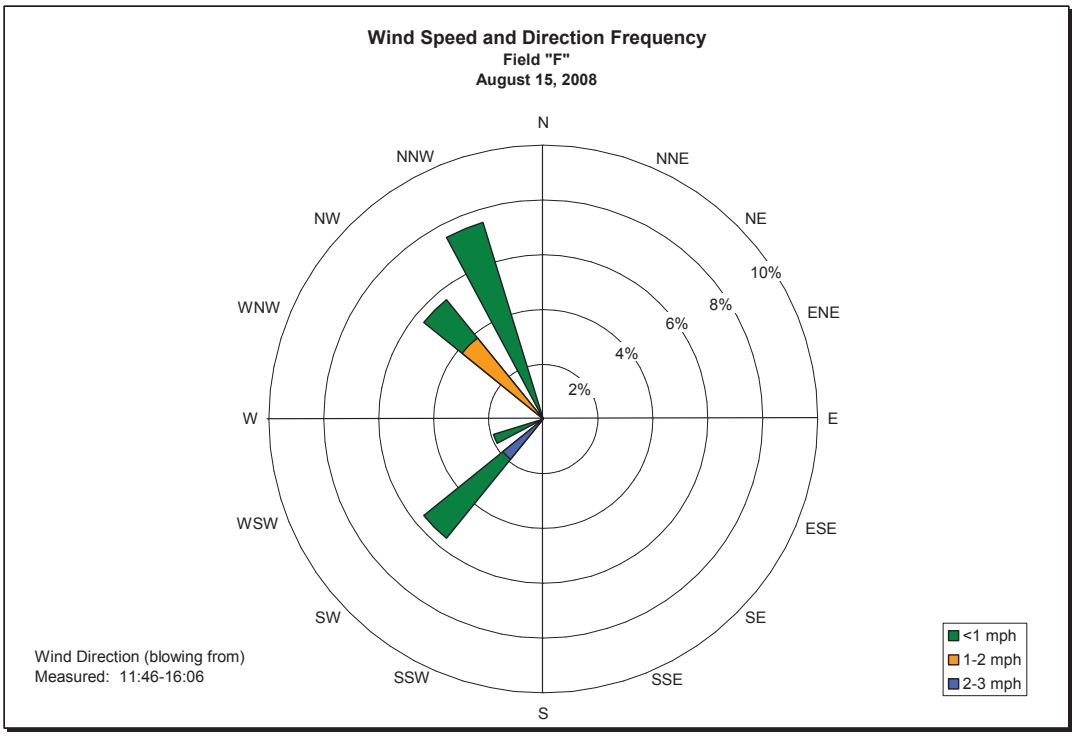


Figure 7 - Wind Speed and Direction

to be less than two miles per hour and were from the north and northwest. At approximately 15:30, the winds shifted to the southwest and increased to a maximum of three miles per hour. Figure 7 depicts the wind speed, direction, and frequency noted during the testing period. A brief rain shower occurred at approximately 14:45.

The air temperature was measured at three different heights (one foot, four feet, and five feet) directly over the playing surface near sample location SF-1. In addition, the temperature of the crumb rubber in-fill material was measured at a depth of approximately one inch. The measured temperatures are shown in Figure 8. The air temperature was noted to increase with decreasing height above the playing surface. The average air temperature measured at a height of five feet was 76.6° F, while the average temperatures at one foot and four feet were 85.7° F and 81.7° F, respectively. The average temperature of the crumb rubber was 91.7° F. Significant cooling of the crumb rubber and the air column at one foot and four feet above the surface was noted following the brief rain shower that occurred at 14:45.

Periodic measurements of the surface temperature of the synthetic "grass" fibers were measured using an infrared thermometer manufactured by EXTECH Instruments (EXTECH Pocket IR thermometer). A maximum temperature of 127° F was noted at 12:00.

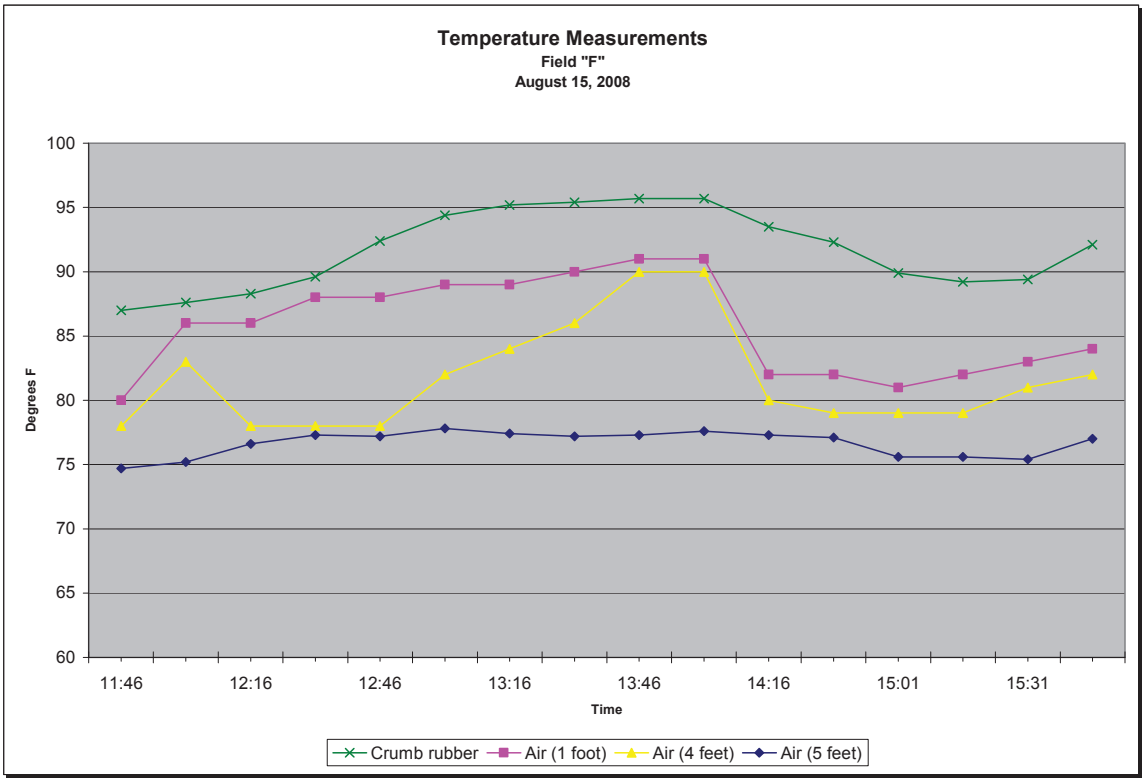


Figure 8 – Temperature Measurements Field F

All air sampling pumps were activated between 11:40 and 11:49. The pumps connected to the ThermoSorb N media were allowed to run at a flow rate of approximately one liter per minute for approximately 75 minutes. At the conclusion of the appropriate time interval, the SKC Universal Pump 224-PCXR8 was deactivated and the ThermoSorb N module was removed and sealed using the supplied caps. After approximately four hours, the SKC Airlite sampling pumps were also deactivated and the XAD-2 adsorbent tubes were removed and sealed using the supplied caps. The PTFE filters were capped and placed into plastic zip bags.

Table 1
Sampled Air Volumes - Field F
August 15, 2008

	ThermoSorb N Module			XAD-2 Module		
Sample ID	Start Time	End Time	Air Volume (L)	Start Time	End Time	Air Volume (L)
SF-1	11:49	13:04	76.13	11:49	16:08	519.04
SF-2	11:42	12:57	75.90	11:42	15:57	512.04
SF-3	11:45	13:00	75.98	11:45	16:04	519.55
SF-4	11:47	13:03	77.82	11:47	16:07	521.30
SF-5	11:40	12:55	78.75	11:40	15:46	493.23

The samples were packaged for delivery to the Wisconsin Occupational Health Laboratory at the University of Wisconsin. The analytical methods employed are described in the "Methodology" section above.

The volatile nitrosamine analysis indicated that there were no detectable concentrations of nitrosamines in the air directly above the synthetic turf playing surface (Table 2). The results also indicate that the air upwind and downwind of the playing surface lacked detectable concentrations of nitrosamines.

Table 2
Volatile Nitrosamines Results – Field F

	SF-1		SF-2		SF-3		SF-4		SF-5	
	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv
Nitrosodibutylamine (n-)	<1.1	< 0.18	<1.1	< 0.17	<1.4	< 0.22	<1.1	< 0.17	<1.0	< 0.16
Nitrosodiethylamine (n-)	<1.1	< 0.27	<1.1	< 0.26	<1.4	< 0.34	<1.1	< 0.27	<1.0	< 0.24
Nitrosodimethylamine (n-)	<1.1	< 0.38	<1.1	< 0.36	<1.4	< 0.46	<1.1	< 0.37	<1.0	< 0.34
Nitrosodipropylamine (n-)	<1.1	< 0.21	<1.1	< 0.20	<1.4	< 0.26	<1.1	< 0.20	<1.0	< 0.19
Nitrosomorpholine (n-)	<1.1	< 0.24	<1.1	< 0.23	<1.4	< 0.30	<1.1	< 0.23	<1.0	< 0.21
Nitrosopiperidine (n-)	<1.1	< 0.24	<1.1	< 0.24	<1.4	< 0.30	<1.1	< 0.24	<1.0	< 0.22
Nitrosopyrrolidine (n-)	<1.1	< 0.28	<1.1	< 0.27	<1.4	< 0.34	<1.1	< 0.27	<1.0	< 0.25

µg/m^3 = mircograms per cubic meter
ppbv = parts per billion per volume

The laboratory analysis of the air directly above the synthetic turf playing surface also lacked detectable concentrations of benzothiazole and 4-(tert-octyl) phenol (Table 3). The upwind and downwind samples yielded similar results. No detectable concentrations of either compound were noted upon extraction of the two micron PTFE filters.

Table 3
Benzothiazole and 4-(tert-octyl) Phenol Results – Field F

	SF-1 µg/m^3	SF-2 µg/m^3	SF-3 µg/m^3	SF-4 µg/m^3	SF-5 µg/m^3
Benzothiazole	<0.19	<0.20	<0.19	<0.19	<0.20
4-(tert-octyl)phenol	<0.19	<0.20	<0.19	<0.19	<0.20

µg/m^3 = mircograms per cubic meter

Field G

Air sampling activities were conducted at Field G on August 18, 2008. The same procedures that were used in sampling at Field F were employed for the sampling at Field G. A potentially significant change in the sampling conditions was encountered during the activities at Field G. The owner of the field had groomed, or raked, the field three days prior to the air sampling activities. As a result of the grooming, the crumb rubber infill had not yet settled within the synthetic grass 'fibers" and was, therefore, more exposed at the surface.

As with the previous sampling, five discrete sample locations were chosen. The sample locations are graphically presented in Figure 9. Sampling activities were initiated at 11:17 and were completed at 15:33.

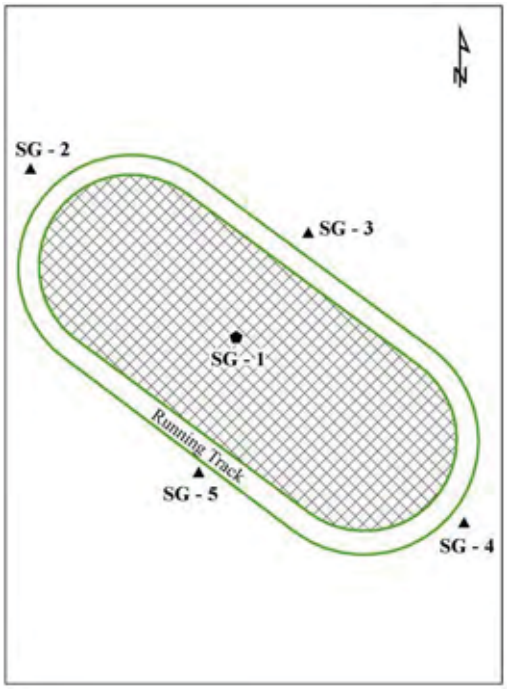


Figure 9 – Sample Locations Field G

Weather conditions on August 18, 2008, at the sample site were generally sunny with ambient air temperatures between 80° F and 85° F. Winds were generally light to calm and were variable in direction although were generally from a southerly direction. The maximum measured wind speed was three miles per hour. Figure 10 depicts the wind speed, direction, and frequency noted during the testing period.

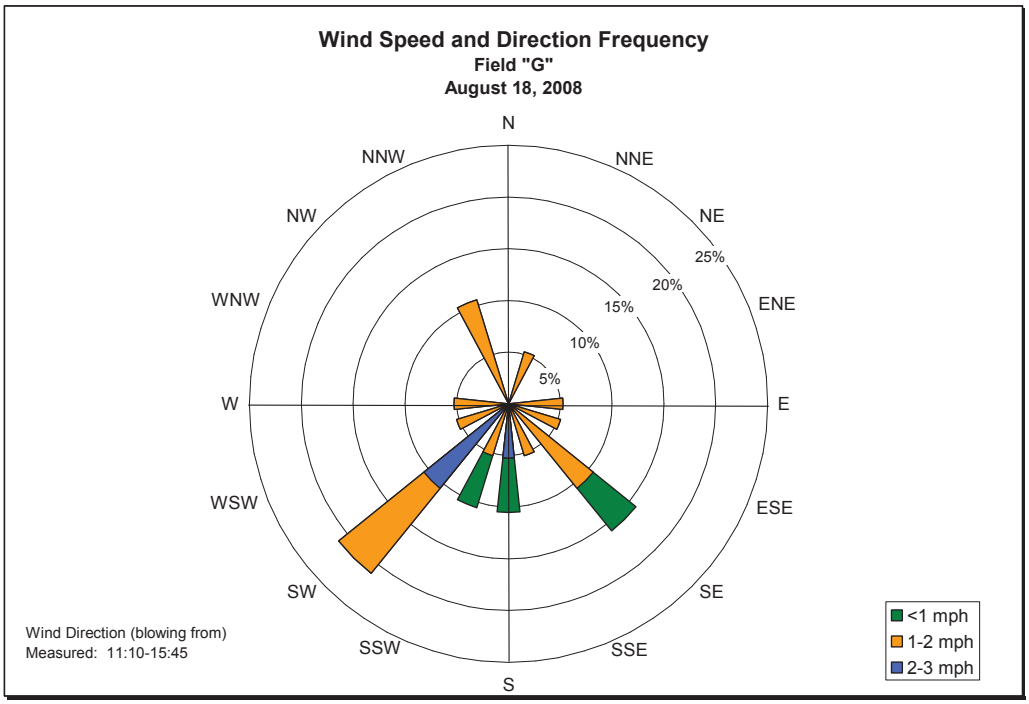


Figure 10 - Wind Speed and Direction

The air temperatures measured during the sampling at Field G are shown in Figure 11. As with Field F, the air temperature was noted to increase with decreasing height above the playing surface. The average air temperature measured at a height of five feet was 84.6° F while the average temperatures at one foot and four feet were 92.3° F and 88.4° F, respectively. The average temperature of the crumb rubber was 99.6° F. The surface temperature of the synthetic grass blades averaged 139° F.

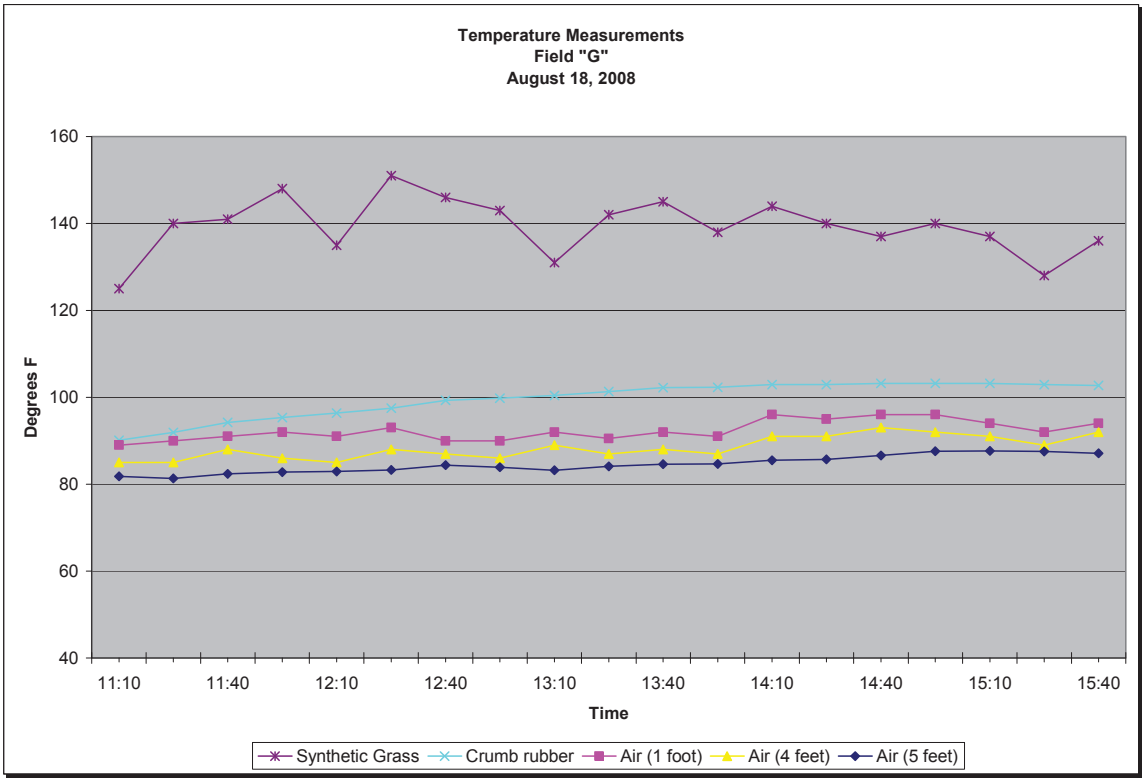


Figure 11 - Temperature Measurements Field G

All air sampling pumps were activated between 11:40 and 11:49. Table 4 details the start and stop times of the various sampling pumps and the volumes of air pumped during the sampling at Field G.

Table 4
Sampled Air Volumes - Field G
August 18, 2008

	ThermoSorb N Module			XAD-2 Module		
Sample ID	Start Time	End Time	Air Volume (L)	Start Time	End Time	Air Volume (L)
SG-1	11:22	12:37	75.75	11:22	15:23	480.96
SG-2	11:17	12:32	75.75	11:17	15:18	480.72
SG-3	11:25	12:40	75.15	11:25	15:25	481.44
SG-4	11:28	12:43	75.225	11:28	15:28	480.96
SG-5	11:33	12:48	75.525	11:33	15:33	481.20

The samples were packaged for delivery to the Wisconsin Occupational Health Laboratory at the University of Wisconsin. The analytical methods employed are described in the "Methodology" section above.

The volatile nitrosamine analysis indicated that there were no detectable concentrations of nitrosamines in the air directly above the synthetic turf playing surface (Table 5). The results also indicate that the air upwind and downwind of the playing surface lacked detectable concentrations of nitrosamines.

Table 5
Volatile Nitrosamines Results – Field G

	SG-1		SG-2		SG-3		SG-4		SG-5	
	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv
Nitrosodibutylamine (n-)	<1.3	< 0.20	<1.4	< 0.21	<1.4	< 0.21	<1.4	< 0.21	<1.4	< 0.21
Nitrosodiethylamine (n-)	<1.3	< 0.32	<1.4	< 0.33	<1.4	< 0.33	<1.4	< 0.33	<1.4	< 0.33
Nitrosodimethylamine (n-)	<1.3	< 0.44	<1.4	< 0.45	<1.4	< 0.45	<1.4	< 0.45	<1.4	< 0.45
Nitrosodipropylamine (n-)	<1.3	< 0.24	<1.4	< 0.25	<1.4	< 0.25	<1.4	< 0.25	<1.4	< 0.25
Nitrosomorpholine (n-)	<1.3	< 0.28	<1.4	< 0.29	<1.4	< 0.29	<1.4	< 0.29	<1.4	< 0.29
Nitrosopiperidine (n-)	<1.3	< 0.28	<1.4	< 0.29	<1.4	< 0.29	<1.4	< 0.29	<1.4	< 0.29
Nitrosopyrrolidine (n-)	<1.3	< 0.32	<1.4	< 0.33	<1.4	< 0.34	<1.4	< 0.34	<1.4	< 0.33

µg/m^3 = mircograms per cubic meter
ppbv = parts per billion per volume

The laboratory analysis of the air directly above the synthetic turf playing surface indicated a concentration of benzothiazole of 0.39 micrograms per cubic meter of air. No 4-(tert-octyl) phenol was detected (Table 6). The upwind and downwind samples yielded similar results. No detectable concentrations of either compound were noted upon extraction of the two micron PTFE filters.

Table 6
Benzothiazole and 4-(tert-octyl) Phenol Results – Field G

	SG-1	SG-2	SG-3	SG-4	SG-5
	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
Benzothiazole	0.39	<0.21	<0.21	<0.21	<0.21
4-(tert-octyl)phenol	<0.21	<0.21	<0.21	<0.21	<0.21

µg/m^3 = mircograms per cubic meter

Although the concentration of benzothiazole was quantified at 0.39 μg/m^3, the three trip spikes that were used as quality control recovered low for benzothiazole. The average recovery was 39% of the known spiked concentration, indicating that some degradation of the sample may have occurred prior to laboratory extraction. Assuming a similar degradation occurred for sample SG-1, the actual concentration of benzothiazole in the air directly above the synthetic playing surface may have been as high as 1.00 μg/m^3.

Summary

Twenty air samples were collected above and around two synthetic turf playing surfaces in Connecticut. Ten of the samples were analyzed for volatile nitrosamine content and 10 were analyzed for benzothiazole and 4-(tert-octyl) phenol content. The samples were collected on warm, late summer days during periods of light to calm winds. In one case, the synthetic turf surface had been groomed three days prior to the sampling. The sampling was conducted during periods when the temperature of the crumb rubber in-fill material was elevated due to exposure to the sun. The average temperatures of the crumb rubber were 91.7° F and 99.6° F. The surface temperature of the synthetic grass blades was noted to climb as high as 151° F. The combination of air temperatures, surface temperatures, wind speed and, in the case of Field G, the recent maintenance, are believed to be conditions favorable for generating maximum concentrations of the analytes in the air column above and around the playing surfaces.

This study determined that under favorable conditions for vapor generation, no detectable concentrations of volatile nitrosamines or 4-(tert-octyl) phenol existed in the air column at a height of four feet above the tested synthetic playing surfaces or in the air either upwind or downwind of the fields. The study did not evaluate if any of these two compounds were off-gassed from the fields, but simply that if they did, sufficient dilution within the air column existed to render them undetectable using methods based upon accepted OSHA and NIOSH procedures. The study also determined that benzothiazole, a common compound used in the manufacturing of rubber and plastics, was present at a very low concentration directly above one of the two fields sampled. This compound was not detected at the second of the two fields sampled nor was it detected in any of the upwind or downwind locations at either field. The field where benzothiazole was detected had recently been groomed, thereby bringing significant

quantities of crumb rubber nearer to the surface of the field resulting in greater exposure to both the sunlight and air.

References

[1] Connecticut Agricultural Experiment Station (2007). Examination of Crumb Rubber Produced from Recycled Tires. AC005-8/07.

[2] Dye, C., Bjerke, A., Schmidbauer, N., and Mano, S. (2006). Measurement of Air Pollution in Indoor Artificial Turf Hall. Norwegian Institute for Air Research Report NILU OR 03/2006.

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Evaluation of Stormwater Drainage Quality From Synthetic Turf Athletic Fields

Scott G. Bristol, LEP
Vincent C. McDermott, FASLA, AICP

Milone & MacBroom, Inc.
99 Realty Drive
Cheshire, Connecticut 06410

Each year, millions of scrap tires are generated in the United States. The Rubber Manufacturers Association estimates that in 2005 seven-eighths of the scrap tires generated were ultimately consumed or recycled in end-use markets.[1] Approximately 290 million new scrap tires are generated each year.[2] Beneficial reuses of scrap tires include use as tire-derived fuel, landfill leachate collection systems, septic system drain fields, various civil engineering applications related to roadway and bridge construction, various stamped and punched rubber products, and use in athletic field and other recreational applications. The potential environmental effects resulting from the reuse of scrap tires in civil engineering applications have been evaluated by Humphrey[3, 4] and Brophy[5], among others. While these studies have concluded that the use of tire chip has a negligible effect upon ground water quality, few, if any, studies have been conducted concerning the effect on water quality resulting from the installation of synthetic turf athletic fields containing cryogenically treated crumb rubber produced from scrap tires.

Figure 1 - Synthetic Turf with Crumb Rubber Infill

This paper presents the results of a study in which the stormwater drainage from crumb rubber and silica sand in-filled synthetic turf athletic fields was analyzed over a period of approximately one year.

Methodology

Three fields within Connecticut were selected for this study. Two of the fields are located in the northern portion of the state while the third is located in the southern portion of the state. Fields F and G were constructed by FieldTurf in 2007, and Field E was constructed in 2008. All fields are multipurpose fields used for sports such as football, soccer, field hockey, and lacrosse, among others, and are encircled by synthetic running track surfaces. In all cases, edge drains were present to capture the stormwater runoff from the running track surfaces (Figure 2).

Figure 2 - Running Track Edge Drain

This allowed for sampling to be conducted of solely the stormwater that infiltrated the field surface and migrated downward through the in-fill material, through the polyethylene fiber backing, and into the underlying stone prior to entering the dedicated drainage piping. A typical cross section of a synthetic turf athletic field is shown in Figure 3.

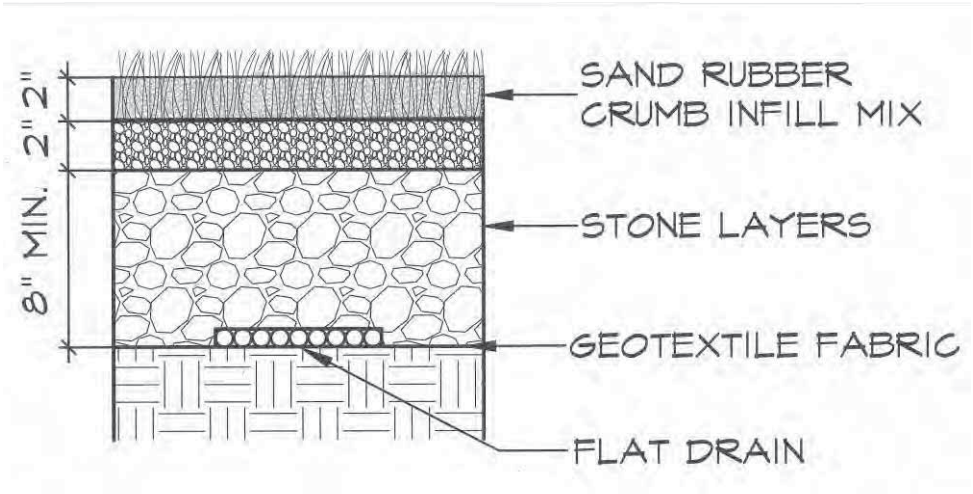

Figure 3 - Typical Field Cross Section

The use of the stone base and the flat drain systems is intended to drain stormwater out of and away from the playing surface as quickly as possible.

Each of the three sampled fields was constructed using nonmetallic underdrain systems that discharged directly to either a nearby catch basin or manhole. Grab samples of the discharge water were collected directly from the discharge pipe at the discharge location. Samples were generally collected on a calendar-quarter basis and were collected as soon as practical after the start of a rainfall event. The samples were collected using a high-density polyethylene dipper manufactured by Bel-Art and obtained from Forestry Suppliers, Inc. (catalog number 53915). The dipper was equipped with a six-foot polyethylene handle to allow for sampling without the need for entry into confined spaces. Tests performed included acute aquatic toxicity, dissolved metals (zinc, lead, selenium, and cadmium), and pH.

The aquatic toxicity monitoring was performed by GZA GeoEnvironmental, Inc. (GZA), of Bloomfield, Connecticut, in accordance with Method EPA-821-R-02-012. The water sample for this analysis was collected from Field F on October 12, 2007.

The analysis for dissolved metals content and pH was performed by Complete Environmental Testing (CET) of Stratford, Connecticut. The water samples for this analytical method were collected from Field F on October 12, 2007, October 20, 2007, November 6, 2007, February 5,

2008, April 28, 2008, and October 1, 2008. A single sampling event was conducted at Field G (April 29, 2008) and at Field E (July 24, 2008).

Subsequent to initiation of the study, the scope was expanded to include laboratory analysis of samples of the crumb rubber in-fill material. The laboratory analysis included the evaluation of metals content in an extract produced in accordance with EPA Method 1312. This methodology is referred to as the Synthetic Precipitation Leaching Procedure or SPLP. The purpose of the testing was to evaluate the potential to leach metals under acidic conditions in the controlled environment of a laboratory. The expectation was that the results would not be directly comparable to the actual in-place field conditions but would provide a useful check on the results of the drainage sampling. The analysis was performed by CET. Samples of the crumb rubber were collected from Field F on February 28, 2008, April 28, 2008, and October 1, 2008. A sample was collected from Field G on April 29, 2008, and from Field E on October 1, 2008. A sample of unused crumb rubber was also obtained from FieldTurf on October 23, 2007, and analyzed in accordance with the SPLP procedure.

Additional bench-scale testing was performed to evaluate the effect upon drainage water pH due to the stone layer that is installed under the synthetic surface materials. The tested fields were constructed using a stone layer consisting of broken basalt rock. A sample of basalt was obtained during the installation of Field E in order to perform the pH testing. The pH testing was conducted by first creating solutions of known pH. Five samples of stone, each having a mass of approximately 300 grams, were placed in separate glass jars. The known pH solution was then placed in contact with the stone samples, and the solution was monitored at five intervals up to 15 minutes. Separate control samples of tap water were prepared and served as quality control samples. Solutions of pH 4.2 and 5.2 were prepared for this evaluation.

Results

Aquatic Toxicity Evaluation

On October 12, 2007, a sample of stormwater was collected from the drainage system at Field F. The sample was placed into a container supplied by GZA and immediately delivered to GZA for an evaluation of the aquatic toxicity using *Daphnia pulex* as the test organism. The testing was conducted in accordance with EPA Method EPA-821-R-02-012. The results indicated >100% survival at both the 24- and 48-hour intervals at LC_{50} using copper nitrite as the reference toxicant.

Metals Content in Drainage Water

Samples of the stormwater were collected from Field F on October 12, 2007, October 20, 2007, November 6, 2007, February 5, 2008, April 28, 2008, and October 1, 2008. The samples were chilled and delivered to CET for analysis of the dissolved fraction of zinc, lead, selenium, and cadmium. The results were compared to the lowest aquatic life criterion for each element as established by the Connecticut Department of Environmental Protection. Table 1 summarizes the results of the laboratory analysis. The results of the laboratory analysis indicated that lead, selenium, and cadmium were not present in the drainage water. Zinc was determined to be present on three of the five sampling dates at a maximum concentration of 0.022 mg/L. The Water Quality Standard established by the Connecticut Department of Environmental Protection is 0.065 mg/L.

Table 1
Metals Content in Drainage Water - Field F

Constituent	Water Quality Standard[1]	Sample Date					
		10/12/2007	10/20/2007	11/6/2007	2/5/2008	4/28/2008	10/1/2008
metals (all units in mg/L)							
Zinc	0.065	<0.020	0.022	0.012	<0.002	0.019	0.031
Lead	0.0012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	0.005	<0.010	<0.005	<0.002	<0.002	<0.002	<0.002
Cadmium	0.00135	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
pH	--	7.30	7.41	7.34	7.48	7.85	7.83

[1] CT Department of Environmental Protection Standard for fresh water

A sample of stormwater was collected from the drainage system of Fields G and E on April 28, 2008, and July 24, 2008, respectively. The results, which are summarized in Tables 2 and 3, again indicated levels of dissolved zinc but at concentrations less than the applicable Water Quality Standard. Lead, selenium, and cadmium were not detected in the drainage from either Field E or Field G.

Table 2
Metals Content in Drainage Water - Field G

Constituent	Water Quality Standard[1]	Sample Date
		4/29/2008
metals analysis (all units in mg/L)		
Zinc	0.065	0.005
Lead	0.0012	<0.001
Selenium	0.005	<0.002
Cadmium	0.00135	<0.001
pH	--	8.7

[1]CT Department of Environmental Protection Standard for fresh water

Table 3
Metals Content in Drainage Water - Field E

Constituent	Water Quality Standard[1]	Sample Date
		7/24/2008
metals analysis (all units in mg/L)		
Zinc	0.065	0.036
Lead	0.0012	<0.001
Selenium	0.005	<0.002
Cadmium	0.00135	<0.001
pH	--	7.62

[1]CT Department of Environmental Protection Standard for fresh water

Laboratory Leaching Potential Evaluation

Samples of the crumb rubber and silica sand in-fill material were collected from Fields E, F, and G. The samples were collected on two different dates for Fields E and F and on just one occasion from Field G. Approximately 150 grams of the in-fill material were collected on each date and delivered to CET for metals analysis in accordance with the SPLP extraction protocols. The results were compared to the criteria established by the Connecticut Department of Environmental Protection for the evaluation of the leaching potential of environmentally contaminated soil. The results, which are summarized in Table 4, demonstrate that the crumb rubber has the potential to leach metals but at concentrations less than the criteria established by the CT DEP for geographic areas that rely upon ground water as the source of potable water.

Table 4
Synthetic Precipitation Leaching Procedure - Crumb Rubber In-fill

		Date					
		10/23/2007	2/8/2008	4/28/2008	4/29/2008	10/1/2008	10/1/2008
		Raw Crumb Rubber	Field F	Field F	Field G	Field F	Field E
Constituent	Approximate "Age"	0 month	4 months	6 months	6 months	1 year	4 months
	Connecticut Pollutant Mobility Criteria	all units in mg/l					
Mercury	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Lead	0.015	<0.013	<0.013	0.006	0.004	<0.013	<0.013
Selenium	0.05	<0.01	<0.01	<0.002	<0.002	<0.01	<0.01
Cadmium	0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005
Chromium	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.05	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Barium	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	0.036	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	1.3	<0.04	<0.04	<0.04	<0.04	na	na
Nickel	0.1	<0.05	<0.05	<0.05	<0.05	na	na
Zinc	5	1.6	0.91	1.9	1.1	2.4	4.7

na: not analyzed

Bench-Scale pH Analysis

The measurements obtained as part of the sampling of the drainage water discharge indicated a pH that was higher than anticipated. Measurements obtained of the pH of rainfall in the town of Cheshire, Connecticut during the study period indicated a pH of rainfall that was generally between five and six units. It was theorized that the basaltic stone base used in the construction of the athletic fields had a neutralizing effect on the infiltrated rainfall at the field locations. A limited bench-scale test was developed and performed to evaluate the effect of the stone on the pH level of various prepared solutions. The stone used for the performance of these tests was obtained during the construction of Field E.

In the first test, approximately 300 grams of crushed basaltic stone were place in each of five nine-ounce glass jars. The glass jars were then filled with tap water, and the pH was measured as a function of time by sequentially pouring the water out of each sample jar and into a separate clean glass jar for evaluation. A parallel set of jars was used containing just tap water as a set of control samples. The crushed stone was determined to have minimal effect on the tap water.

Table 5
pH Evaluation - Tap Water

Jar #	Weight of Stone (g)	Duration (min.)	pH	Water	Duration (min.)	pH
1	318	1:00	7.2	Control	1:55	7.4
2	272	2:00	7.7		2:05	7.8
3	304	5:00	8		6:00	7.8
4	312	10:00	7.9		11:00	7.9
5	322	15:00	7.9		16:30	8

The test was then repeated using a solution with a pH of 5.2 units. This test determined that the stone tended to raise the pH of the slightly acidic solution by nearly one full unit within the first minute of the test and then by approximately one-half unit at the conclusion of the test.

Table 6
pH Evaluation - Prepared Solution of pH 5.2

Jar #	Weight of Stone (g)	Duration (min.)	pH	Water	Duration (min.)	pH
1	306	1:00	6.3	Control	3:00	5.4
2	326	2:00	6.4		6:00	5.6
3	308	5:00	6.2		13:00	5.8
4	286	10:00	6.4		18:00	5.8
5	286	15:00	6.4		22:00	5.9

The test was repeated once again using a solution with a pH of 4.2 units. The stone was once again determined to have a neutralizing effect on the pH of the solution. A rise of over two units was noted immediately. The final pH was similar to the end point of the test that was conducted using a starting solution of pH 5.2.

Table 7
pH Evaluation - Prepared Solution of pH 4.2

Jar #	Weight of Stone (g)	Duration (min.)	pH	Water	Duration (min.)	pH
1	312	1:00	6.6	Control	3:00	4.2
2	290	2:00	5.9		6:00	4.2
3	304	5:00	6.2		13:00	4.8
4	304	10:00	6.2		18:00	4.8
5	304	15:00	6.5		22:00	4.4

Summary

The evaluation of the stormwater drainage quality from synthetic turf athletic fields included the collection and analysis of eight water samples over a period of approximately one year from three different fields, the collection and analysis of samples of crumb rubber in-fill from the same three fields plus a sample of raw crumb rubber obtained from the manufacturer, and the evaluation of the effect of the stone base material on the pH of the drainage water. The results of the study indicate that the actual stormwater drainage from the fields allows for the complete survival of the test species *Daphnia pulex.* An analysis of the concentration of metals in the actual drainage water indicates that metals do not leach in amounts that would be considered a risk to aquatic life as compared to existing water quality standards. Analysis of the laboratory-

based leaching potential of metals in accordance with acceptable EPA methods indicates that metals will leach from the crumb rubber but in concentrations that are within ranges that could be expected to leach from native soil. Lastly, it can be concluded that the use of crushed basaltic stone as a base material in the construction of the athletic fields has a neutralizing effect on precipitation.

References

[1] Rubber Manufacturers Association. *Scrap Tire Markets in the United States.* November 2006.

[2] United States Environmental Protection Agency, Illinois Environmental Protection Agency. *Scrap Tire Cleanup Guidebook A Resource for Solid Waste Managers Across the United States*. EPA-905-B-06-001. January 2006.

[3] Humphrey, Dana N.; Katz, Lynn E. *Five-Year Study of the Water Quality Effects of Tire Shreds Placed Below the Water Table*. March 2001.

[4] Humphrey, Dana N.; Katz, Lynn E. *Field Study of Water Quality Effects of Tire Shreds Placed Below the Water Table*. Proceedings of the Conference on Beneficial Use of Recycled Materials in Transportation Applications, Air and Waste Management Association, Pittsburg, PA. November 2001.

[5] Brophy, Mary O'Reilly; Graney, Joseph. *Groundwater Effects from Highway Tire Shred Use*. Environmental Forensics, 5:79-84, 2004.

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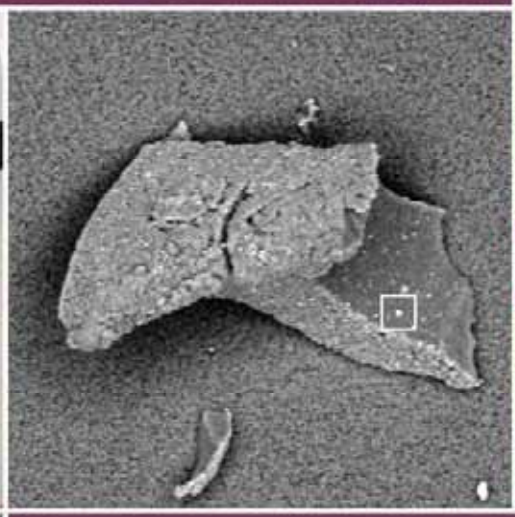

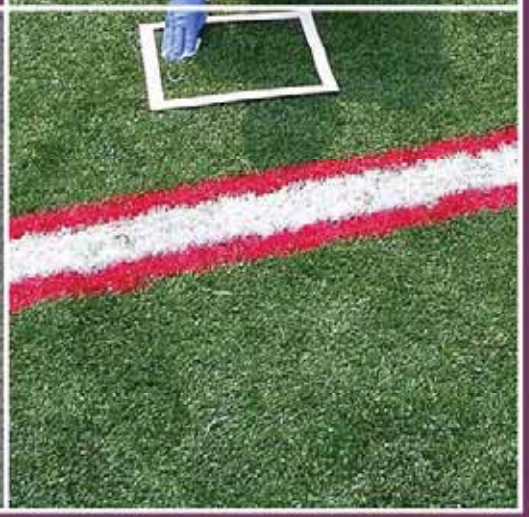

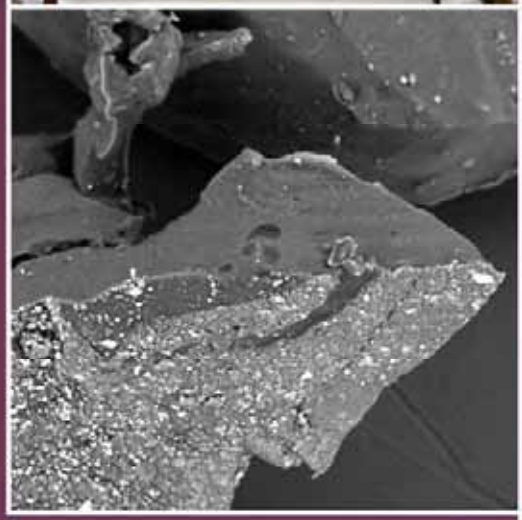

A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds

SCIENCE

Office of
Research and Development
National Exposure
Research Laboratory

EPA/600/R-09/135 November 2009 www.epa.gov/ord

A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds

Prepared by the
National Exposure Research Laboratory
Office of Research and Development
U.S. Environmental Protection Agency

with contributions from the Agency's
Tire Crumb Science Workgroup

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Executive Summary

Background

Recycled tire material, or "tire crumb", is used in many applications, including as a component in synthetic turf fields and playground installations. The use of tire crumbs in these applications provides several benefits, including but not limited to reduced impact injuries; reduced or eliminated use of water, fertilizer, and pesticides needed to maintain grass fields; reduced need for disposal of used tires in landfills; and increased availability of fields for recreation. The public recently has raised concerns regarding potential human health and environmental risks associated with the presence of and potential exposures to tire crumb constituents in recreational fields, especially with regard to children's exposures.

In early 2008, U.S. Environmental Protection Agency (EPA) Region 8 requested that the Agency consider this issue, and a cross-EPA workgroup was formed. The workgroup inventoried and considered the limited available scientific information: laboratory studies of tire material content, off-gassing, and leaching characteristics. Also, a few European studies reported data describing the extent and availability of tire crumb constituents for potential human exposure through various routes and pathways (inhalation, ingestion, and dermal contact).

In the late spring of 2008, a smaller EPA Tire Crumb Science Workgroup (science workgroup) subsequently was formed and charged to consider the quality of the current science and make recommendations regarding the need for future research. Because minimal environmental or exposure data for U.S. populations were available, a limited scoping study was proposed and designed to evaluate a protocol and methods for generating consistently collected U.S. environmental data for select tire crumb constituents.

This report provides the EPA scoping study results. The EPA scoping study results, along with results from other studies conducted by Federal, State, and local organizations, such as the Consumer Product Safety Commission (CPSC); the Agency for Toxic Substances and Disease Registry; States including New Jersey, Connecticut, California, and New York; and New York City, will be considered by EPA to identify possible next steps to address questions from the public regarding the safety of tire crumb infill in ball fields and playgrounds.

Scoping Study Objectives

The EPA science workgroup proposed a limited scoping-level study during 2008 that included the following elements.

- Evaluate, through real-world measurements, the application of readily available sampling and analysis methods for characterizing environmental concentrations of selected tire crumb contaminants in and around playgrounds and synthetic turf fields.
- Evaluate the overall study protocol (monitoring, analytical, and quality control [QC] procedures) for generating the quantity and quality of environmental measurement data needed to characterize the contribution of the tire crumb constituents to environmental concentrations.
- Collect a limited environmental dataset to help understand and assess methods for characterizing potential route- and pathway-specific exposures (inhalation, ingestion, and dermal) based on selected sentinel species.
- Generate a limited set of consistently collected field measurement data from a very few playgrounds and synthetic turf fields that, along with other study data, may be used to develop insights regarding the importance of the various exposure routes and pathways and to inform decisions regarding possible next steps to address questions from the public regarding the safety of tire crumb infill in ball fields and playgrounds.

Study Approach

The proposed final study design included the collection and analysis of selected air, wipe, and material samples at one playground and one synthetic turf field site in the EPA regions where the four National Exposure Research Laboratory (NERL) facilities are located. This design (a total of eight sites) was based on the availability of NERL technical support. During a single daytime period at each site, air samples were to be collected at up to three "on field" or "on playground" sampling locations within the site boundaries in areas as close to anticipated human activity as possible without interfering with routine activities. Air samples also were to be collected at site background upwind sampling locations to characterize local ambient background levels. A comparison of "on playground" or "on field" data with the background data would be used to characterize the environmental availability of tire crumb constituents. Surface wipe samples were to be collected at the "on field" air sampling locations, but not at the background sampling location. Tire crumb and synthetic turf blade samples were to be collected at multiple sampling locations, but these were not always the same locations as the air sampling locations. The following samples were planned for collection and analysis.

- Grab air samples during the hottest daytime period (~2:00 p.m.) to assess organic vapor concentrations (56 volatile organic compounds [VOCs])
- Integrated air particulate matter (PM_{10}) samples to assess particle mass concentrations and concentrations of selected metals (including lead [Pb], chromium [Cr], zinc [Zn], and others)
- Integrated air PM_{10} samples to characterize ambient particles based on morphology (sizes and structure) using scanning electron microscopy (SEM) and, if possible, to estimate the relative contribution of tire crumb particles to the overall particle mass
- Wet surface wipe samples to assess environmental concentrations of metals (e.g., Pb, Cr, Zn, and others) associated with turf field materials (tire crumb rubber and turf blades)
- Turf field tire crumb infill granules, turf blades, and playground tire crumb material to assess concentrations of metals (e.g., Pb, Cr, Zn, and others) associated with these materials
- Field and laboratory QC samples to document the quality of the study data. Duplicate samples for each measure described above were collected where appropriate. Routine field and laboratory QC samples (e.g., blanks, spikes) also were analyzed.

Study Limitations

This limited scoping-level study was designed to evaluate the methods for generating quality environmental data for selected tire crumb constituents and for understanding potential exposure routes and pathways. The study was planned based on readily available resources (personnel, equipment, media, etc.) and in consideration of the workgroup's desired study time period (the summer and early fall of 2008). This time period was recommended, as the projected high ambient temperatures should result in conditions promoting the greatest potential for the environmental release of tire-related constituents.

This study and the resulting data have many limitations. The study was not designed to provide representative U.S. environmental measurement data for all tire crumb constituents or applications. Nor was the study designed to inform conclusions regarding differences in U.S. environmental concentrations or potential exposures to turf field and playground tire crumb constituents based on geographical location, type, manufacturing materials, age, use, or conditions. The study also was not designed to compare potential exposures to turf field and playground tire crumb constituents with those at natural turf fields or playgrounds constructed with other types of surfaces. The study collected limited environmental data to help understand and assess methods for characterizing potential route- and pathway-specific exposures (inhalation, ingestion, and dermal) based on selected sentinel species. No personal exposure data or related information were collected. Validated sampling and analysis methods for characterizing recreational fields were not available, so existing methods used in similar studies

were applied. The study did not evaluate methods for all the reported tire crumb constituents. Semivolatile organic compounds (SVOCs [e.g., benzothiazole, aniline, polycyclic aromatic hydrocarbons (PAHs)]) reported in some studies were not sampled or analyzed because of resource limitations.

Sample Collection Results

Sampling Sites

The full study protocol was implemented at only two synthetic turf field sites (F1 and F4) and one playground site (P1), fewer than the planned four turf field and four playground sites. Difficulties in identifying and arranging site access, logistical limitations, and personnel requirements to operate the extensive array of equipment and sites were the key factors impacting the number of sites monitored.

Unplanned sampling also occurred and is reported herein. The full protocol was conducted at F1 on a second consecutive day providing repeat measures. A reduced set of samples (without integrated air particle monitoring) was completed at a third synthetic turf field site consisting of two collocated fields (F2 and F3). Some samples were collected for two additional turf fields (F5 and F6) collocated with F4. Two F4 “on field” sampling locations were very near a busy commuter road and parking deck.

When a site consisted of multiple fields, one field was designated as the primary location for implementing the protocol. In total, samples were collected for six different synthetic turf fields.

Gaining access to playgrounds was very difficult and became even more difficult with increased media attention. The full sampling protocol was completed at only one playground (P1) and at only two “on playground” sampling locations because of space limitations. Tire crumb material molded to mimic wood bark was obtained from a second playground site (P2).

Sample Collection and Analysis Methods

Air VOCs. Grab air VOC samples (6-L Summa-polished stainless steel canisters) were collected at each sampling location at a 1-m inlet height during the hottest time of day (~2:00 p.m.). The standard EPA Method TO-15 gas chromatography/mass spectrometry (GC/MS) analytical method provided ambient-level concentration measurements for 56 VOC analytes.

Air Particulate Matter. Two integrated air PM_{10} samples (one for particle mass and metals analysis and another for scanning electron microscopy [SEM] analysis) were collected at each sampling location at a 1-m inlet height over collection periods ranging from 5.8 to 7.8 h. This resulted in individual sample air volumes ranging from approximately 7.0 to 9.2 m^3 (3.5 to 5.0 m^3 for SEM samples). PM_{10} mass was determined gravimetrically; metal concentrations by X-ray fluorescence; and assessment of particle size and morphology and attempts to identify the tire crumb component contribution by SEM.

Synthetic Turf Field Surface Wipes. No known validated methods exist for characterizing environmental concentrations of metals on synthetic turf surfaces comprised of both turf blades and tire crumb rubber. A standard wet-wipe method (American Society for Testing and Materials [ASTM] E1728-03) used routinely to measure residential surface dust Pb levels was used for this study. Advantages of this method were the availability of standard wipe material and the existing, well-characterized, sampling and analytical methodologies. Samples were collected at each “on field” turf field sampling location. Wipe samples were not collected at the “on playground” or background sampling locations. Each surface wipe, tire crumb, and turf blade sample (described below) was extracted first using the EPA In Vitro Relative Bioaccessibility Assessment Method 9200.1-86. (Note: In vitro methods measure the bioaccessibility [e.g., solubility] of metals during a simulated gastric extraction process to assess the percentage of a metal in a material that may become available for absorption in the gastro-

intestinal [GI] tract.) The same material from each sample then was extracted using EPA Method 3050B. A total extractable concentration of Pb, Cr, Zn, arsenic (As), aluminum (Al), barium (Ba), cadmium (Cd), copper (Cu), iron (Fe), manganese (Mn), and nickel (Ni) was determined by an analysis of the combined bioaccessibility and Method 3050B extracts. Extracts were analyzed by inductively coupled plasma (ICP)/MS using EPA Method 6020A. The percent bioaccessible Pb was calculated from the relative amount in the bioaccessible extract as compared with the total extractable amount.

Synthetic Turf Field Tire Crumb Infill. Tire rubber infill was collected randomly at the synthetic turf fields. In this study, it was decided to collect infill material that was readily available at the surface rather than dislodging material trapped deep within the turf blades. This decision was based partly on avoiding potential damage to field components but primarily because the material on the surface was more available for potential human contact. Infill material was not available uniformly across the field surface.

Synthetic Turf Field Blades. Blades were randomly collected at the synthetic turf fields. Collecting blades of each color present at the field was attempted. Turf blade collection relied on the availability of loose blades found on the field surface in lieu of a destructive (i.e., cutting) method. Collection and analysis decisions were complicated by the limited availability of loose blades and a later determination that a minimum of 0.7 g of material was required for analysis.

Playground Tire Crumb Rubber. Tire crumb samples were obtained from two playground sites. It was not clear how many pieces needed to be collected nor at what depth (surface/subsurface) for site characterization, as the crumb shifts with mechanical action. A further challenge is that relatively small amounts (1 g or less) are required for analysis; large amounts may overwhelm the digestion and analytical systems. Intact tire crumb rubber pieces were larger than 1 g. A decision was made not to cut samples, as this would expose unweathered surfaces and possibly impact the bioaccessible Pb estimate.

Conclusions

The key study findings are summarized below. The narrative and appendixes that follow this Executive Summary provide additional details regarding the study, along with all of the measurement and laboratory data. This descriptive report focuses on the study design and methodologies; assessing the methodology for characterizing environmental concentrations of tire crumb constituents in future studies; describing the quality of the scoping study data; and providing recommendations for consideration in the design of any future research, if needed.

In general, the study protocol is expected to reliably yield data for assessing environmental concentrations of selected tire crumb constituents and understanding potential exposure routes and pathways. However, when considering future study designs and implementation, the research needs to carefully consider issues associated with identifying and gaining site access, the cost benefit of obtaining the data versus the resource burden, and the implementation of other methods for generating data to address specific research hypotheses. Future studies will need a carefully developed and implemented communications plan to promote the value of the research and gain access to the required facilities.

(1) The study protocol and many of the methods were found to be reliable and could be implemented in the field. Several limitations are noted as follows.
- Collecting integrated air samples provided a high burden in terms of time and equipment.
- SVOCs were not measured.
- At any single site, there can be substantial variability in the materials used and the concentrations of contaminants measured. More work is needed to determine where to collect samples and how many samples to collect to fully characterize a given site.

- It was difficult to obtain access and permission to sample at playgrounds and recreational fields. More work is needed to increase public and private owner participation if these studies are to be implemented.

(2) Methods used to measure air concentrations of PM_{10} and metals were found to be reliable.
- Concentrations of PM_{10} and metals (including Pb) measured in air above the turf fields were similar to background concentrations.
- Concentrations of PM_{10} and metals at the playground site with high play activity were higher than background levels.
- All PM_{10} air concentrations were well below the National Ambient Air Quality Standards (NAAQS) for PM_{10} (150 $\mu g/m^3$). All air concentrations for Pb were well below the NAAQS for Pb (150 ng/m^3).

(3) Methods used to measure VOCs in air were found to be reliable.
- All VOCs were measured at extremely low concentrations that are typical of ambient air concentrations.
- One VOC associated with tire crumb materials (methyl isobutyl ketone) was detected in the samples collected on one synthetic turf field but was not detected in the corresponding background sample.

(4) Methods used to measure extractable metals from turf field blades, tire crumb materials, and turf field wipe samples were found to be reliable. However, the aggressive acid extraction procedure likely will overestimate the concentration of metals that are readily available for human uptake. Because understanding uptake is a key component in understanding risk, methods to determine bioavailable metal concentrations are still needed.
- Total extractable metal concentrations from the infill, turf blade samples, and tire crumb material were variable both between sites and at the same sites.
- The average extractable lead concentrations for turf blade, tire crumb infill, and tire crumb rubber were low. Although there are no standards for Pb in recycled tire material or synthetic turf, average concentrations were well below the EPA standard for lead in soil (400 ppm).
- Likewise the average extractable Pb concentrations for turf field wipe samples were low. Although there are no directly comparable standards, average concentrations were well below the EPA standard for lead in residential floor dust (40 $\mu g/ft^2$).

(5) On average, concentrations of components monitored in this study were below levels of concern; however, given the very limited nature of this study (i.e., limited number of components monitored, samples sites, and samples taken at each site) and the wide diversity of tire crumb material, it is not possible to reach any more comprehensive conclusions without the consideration of additional data.

NEWS from CPSC

U.S. Consumer Product Safety Commission

Office of Information and Public Affairs — Washington, DC 20207

FOR IMMEDIATE RELEASE
July 30, 2008
Release #08-348

CPSC Hotline: (800) 638-2772
CPSC Media Contacts: (301) 504-7908

CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) staff today released its evaluation (pdf) of various synthetic athletic fields. The evaluation concludes that young children are not at risk from exposure to lead in these fields.

CPSC staff evaluation showed that newer fields had no lead or generally had the lowest lead levels. Although small amounts of lead were detected on the surface of some older fields, none of these tested fields released amounts of lead that would be harmful to children.

Lead is present in the pigments of some synthetic turf products to give the turf its various colors. Staff recognizes that some conditions such as age, weathering, exposure to sunlight, and wear and tear might change the amount of lead that could be released from the turf. As turf is used during athletics or play and exposed over time to sunlight, heat and other weather conditions, the surface of the turf may start to become worn and small particles of the lead-containing synthetic grass fibers might be released. The staff considered in the evaluation that particles on a child's hand transferred to his/her mouth would be the most likely route of exposure and determined young children would not be at risk.

Although this evaluation found no harmful lead levels, CPSC staff is asking that voluntary standards be developed for synthetic turf to preclude the use of lead in future products. This action is being taken proactively to address any future production of synthetic turf and to set a standard for any new entrants to the market to follow.

As an overall guideline, CPSC staff recommends young children wash their hands after playing outside, especially before eating.

 Consumers can also view a video clip (transcript) about lead and synthetic turf. This is in "streaming video" format.

G. Recreation Fields Public Input Presentation – December 16 Slide Presentation

Following are the slides presented during the December 16, 2009 Recreation Fields Public Input Presentation.

City of Portsmouth
Comprehensive Recreation Needs Study

Recreation Fields
Public Input Presentation

December 16, 2009

City of Portsmouth
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AGENDA

RECREATION NEEDS STUDY PROGRESS UPDATE

MIDDLE SCHOOL / ALUMNI FIELD REPLACEMENT

RECREATION FIELDS PRELIMINARY RECOMMENDATIONS

QUESTIONS AND COMMENTS PERIOD

CLOSING AND NEXT STEPS

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Recreation Needs Study
Progress Update

Field Demand Conclusions (Summary)

- Peak Demand Season: Spring and Fall
- Peak Demand Days & Times: Weekday Late Afternoons & Early Evenings. Saturdays.
- Only 4 of the 9 game quality diamonds are lit and only 4 can accommodate Adult Leagues.
- Only 7 of the 17 total fields are lit. 5 of the lit fields are at Portsmouth High School.
- Many organizations have to limit the size of their program due to the lack of fields.
- Many organizations are heavily utilizing fields in Newington and Greenland.

Field Demand Conclusions (Summary) (Continued)

- Most fields are serving as Multi-use, being heavily overused, and have no recovery time.
- Portsmouth Middle and Elementary schools are under served by the existing fields.
- Tournament play is limited due to the lack of field time and the lack of a multi-field complex.
- Amenities are limited:
  - Lack of restrooms at most fields
  - A lack of parking at fields
  - Safety issues with fields being too close to major roads

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Recommended Field Development Based on Needs Assessment:

- 3 to 4 Rectangular Multi-Use, Artificial Turf, Lit Fields
- 2 to 3 Adult Softball Fields

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Middle School / Alumni Field Replacement

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Legend

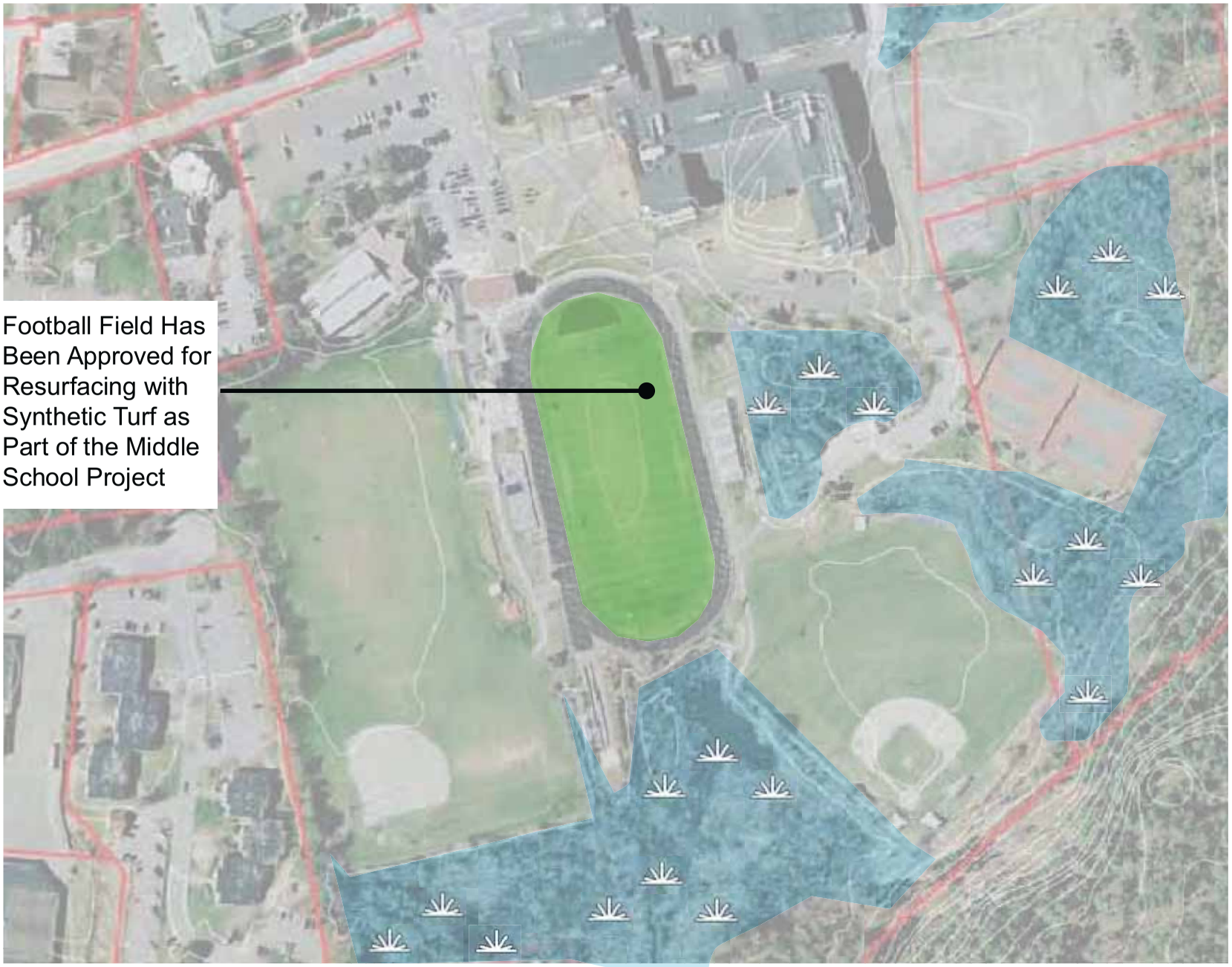
- Parcel Boundary
- Proposed Parking Area
- Synthetic Turf Multi-Use Fields
- Wetland
- 100' Wetland
- Proposed Field
- Pedestrian Path (Existing)
- Proposed Pedestrian (Proposed)
- Existing Rail Road Tracks
- Proposed Access Drive
- Existing Access Drive
- Restrooms

Former Wentworth School Site (Off of Woodbury Avenue)

Site Context

Former Wentworth School Site (Off of Woodbury Avenue)

High School Site



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Preliminary Recommendations

1. IMPROVING EXISTING FACILITIES FOR INCREASED USE AND PLAYABILITY
   - DEVELOP A SCHEDULE OF CAPITAL IMPROVEMENTS
     - IRRIGATION & DRAINAGE
     - RE-GRADING
     - RE-SODDING
     - RESTROOMS, FENCING, PARKING OPTIONS FOR EACH FIELD
   - EVALUATE INSTALLATION OF LIGHTS AT APPROPRIATE EXISTING FIELDS
   - DEVELOP AND ADHERE TO A ROTATION FOR PRACTICE, GAME AND RECOVERY TIME

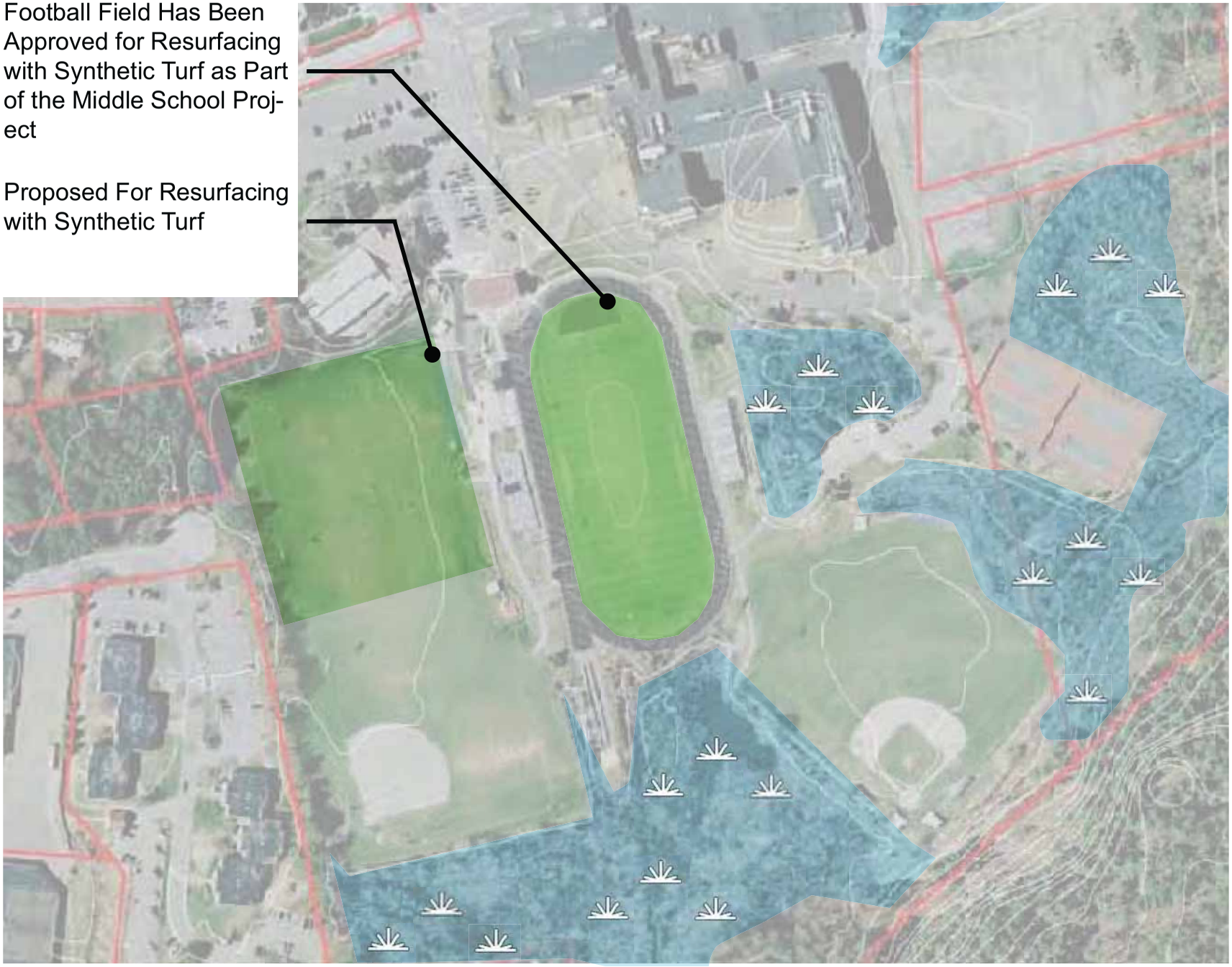
2. REPLACE SOD WITH ARTIFICIAL TURF
   - PORTSMOUTH HIGH SCHOOL FOOTBALL FIELD*
   - PORTSMOUTH HIGH SCHOOL MULTI-USE RECTANGULAR FIELDS
   - CONSIDER TURF AT ALL NEW FIELD LOCATIONS

3. DEVELOP A MULTI-FIELD COMPLEX

High School Site

Football Field Has Been Approved for Resurfacing with Synthetic Turf as Part of the Middle School Project

Proposed For Resurfacing with Synthetic Turf



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Potential New Field Locations

- **STUMP DUMP SITE**
- **JONES AVENUE SITE**
- **PEVERLY HILL ROAD / ROUTE 33 SITE**
- **PEASE SITE**

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Recommended Field Development Based on Needs Assessment:

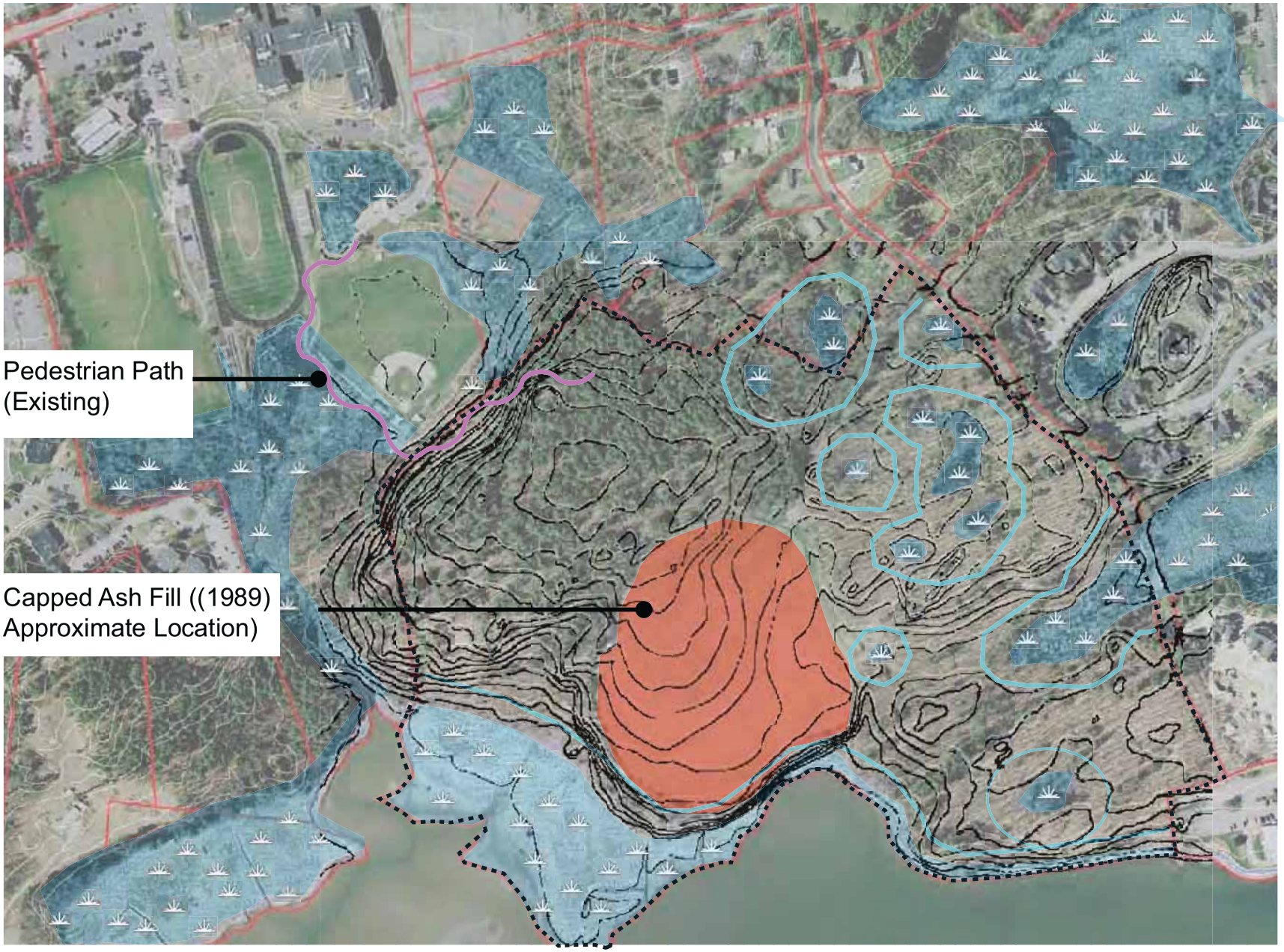
- 3 to 4 Rectangular Multi-Use, Artificial Turf, Lit Fields
- 2 to 3 Adult Softball Fields

Stump Dump Site
Site Context

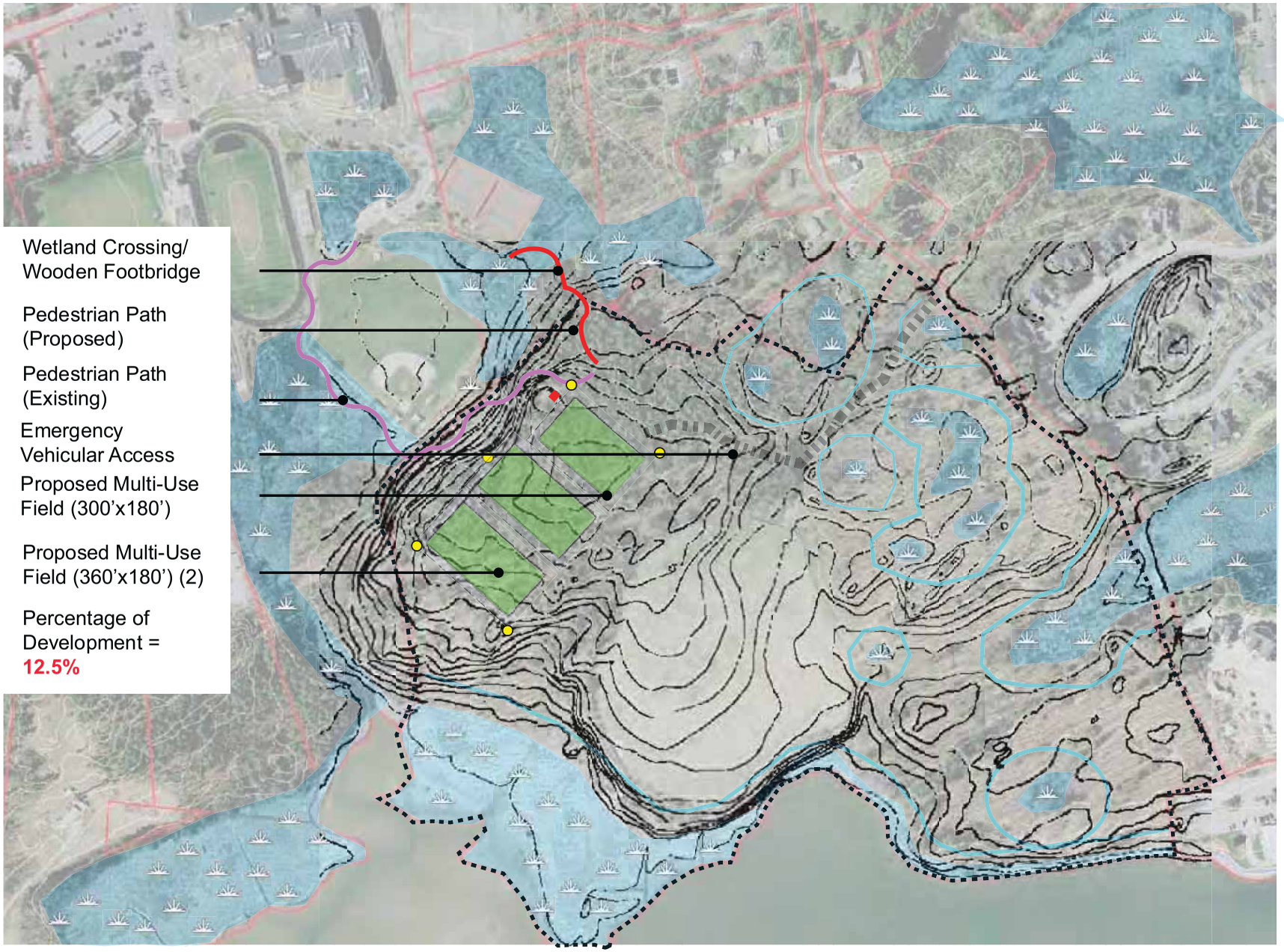
Stump Dump Site

Jones Avenue Site

Site Context

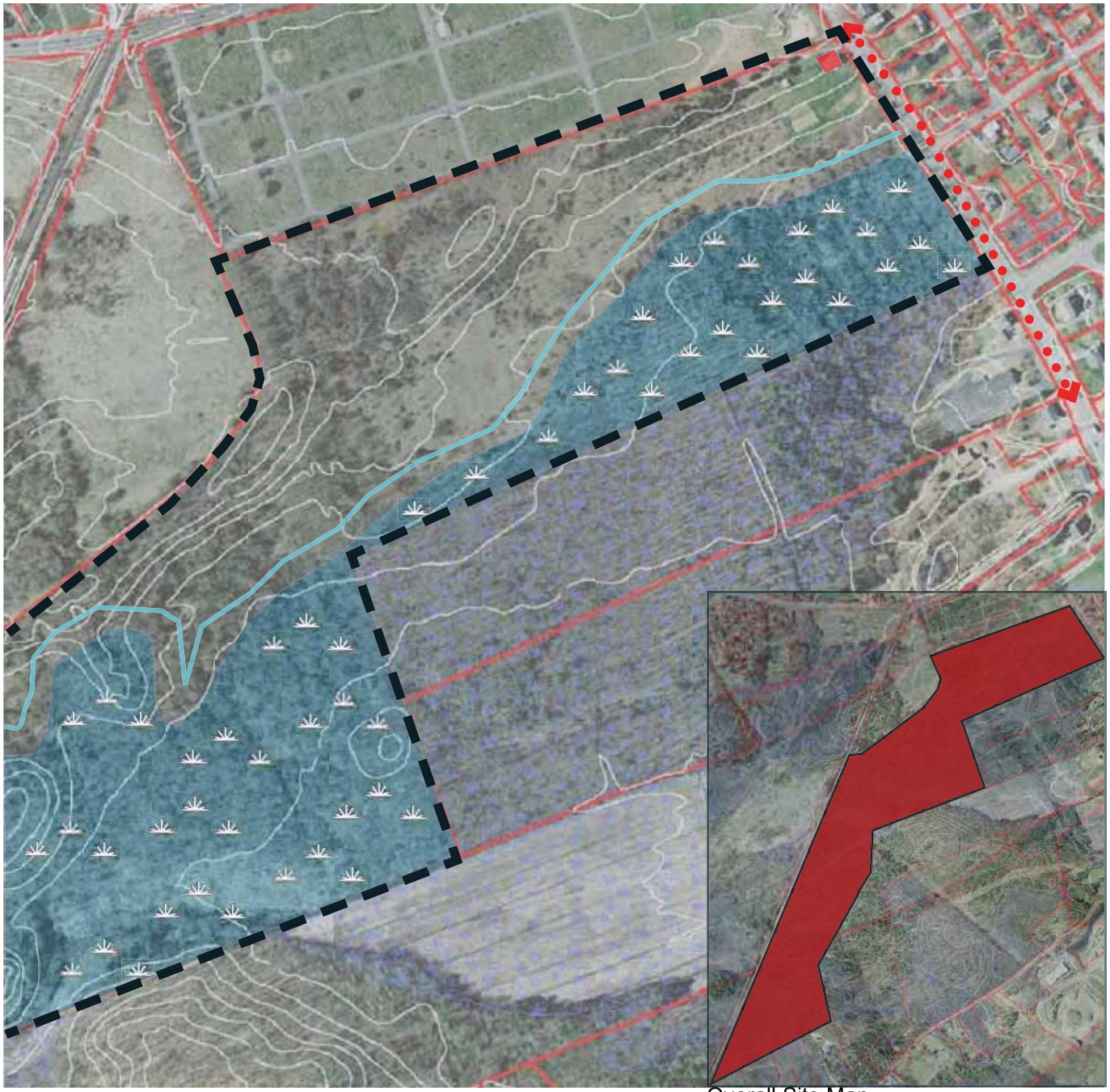


Jones Avenue Site



Peverly Hill Road/Route 33 Site

Site Context



Overall Site Map

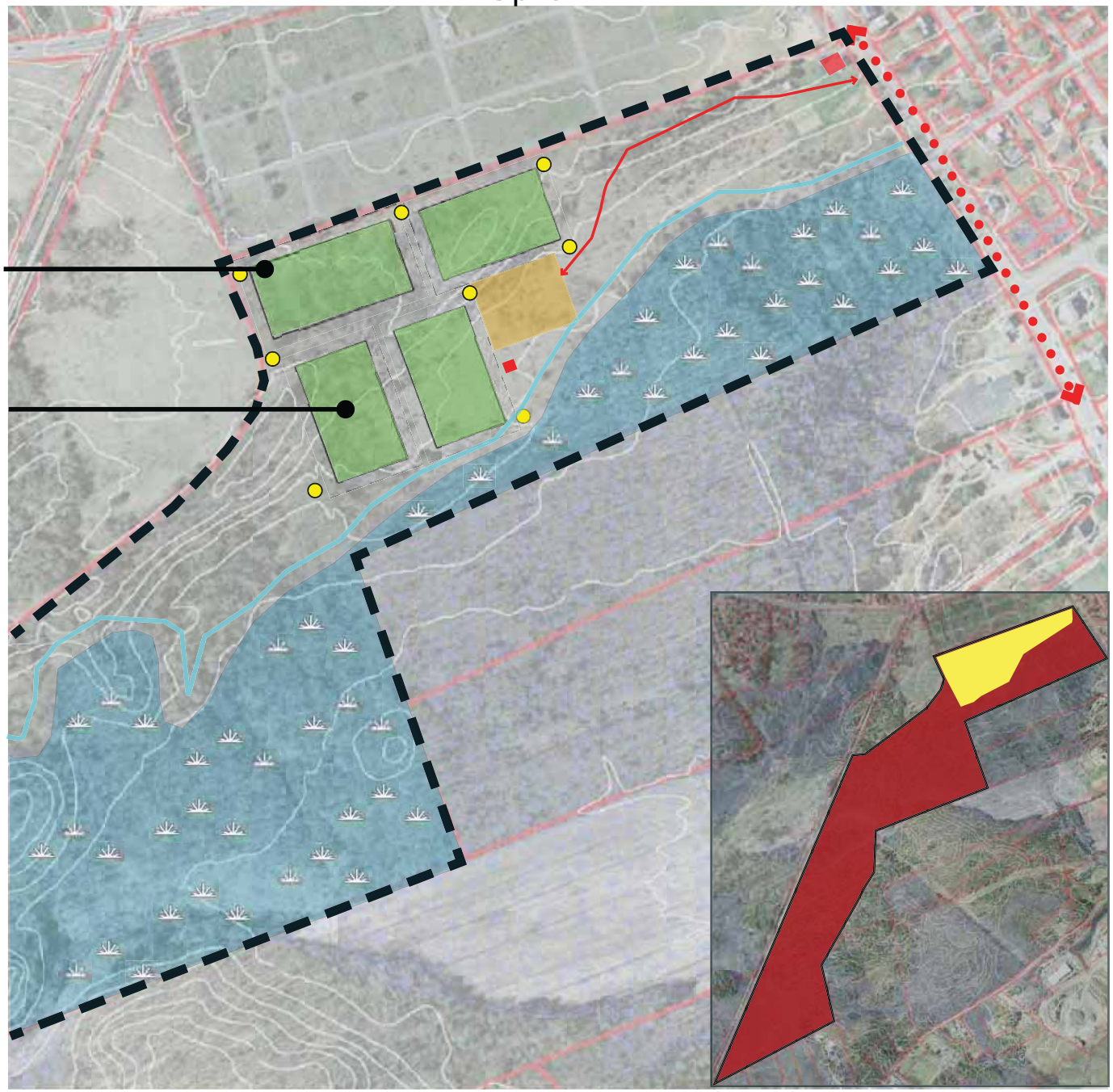
Peverly Hill Road/Route 33 Site

Option A

Proposed Multi-Use Field (360'x180') (1)

Proposed Multi-Use Field (300'x180') (3)

Percentage of Development = **12%**



Overall Site Map

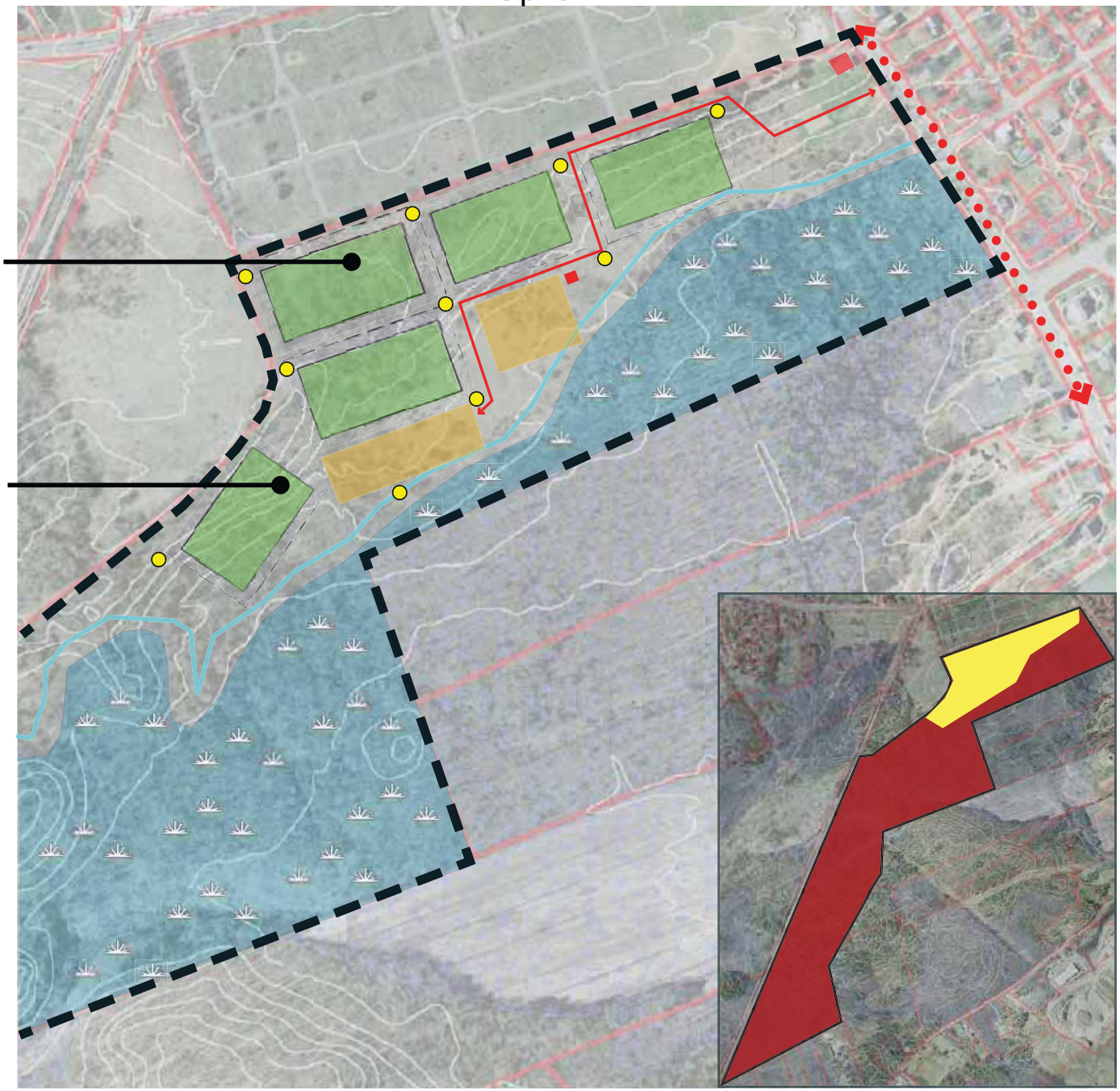
Peverly Hill Road/Route 33 Site

Option B

Proposed
Multi-Use Field
(360'x180') (2)

Proposed
Multi-Use Field
(300'x180') (3)

Percentage of
Development =
17%



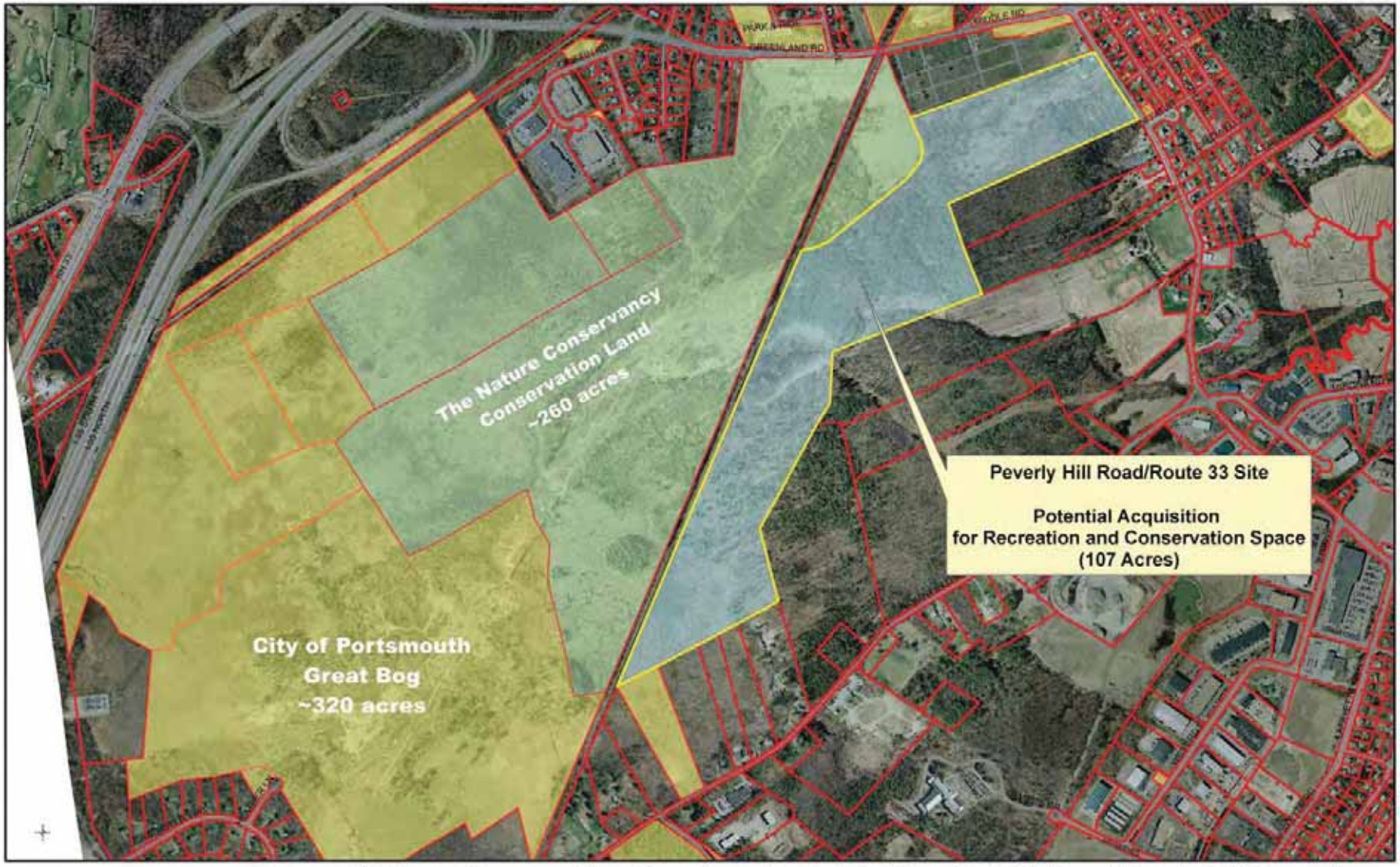
Overall Site Map

Comprehensive Recreational Needs Study

tat the architectural team

Copley Wolff Design Group
Landscape Architects & Planners

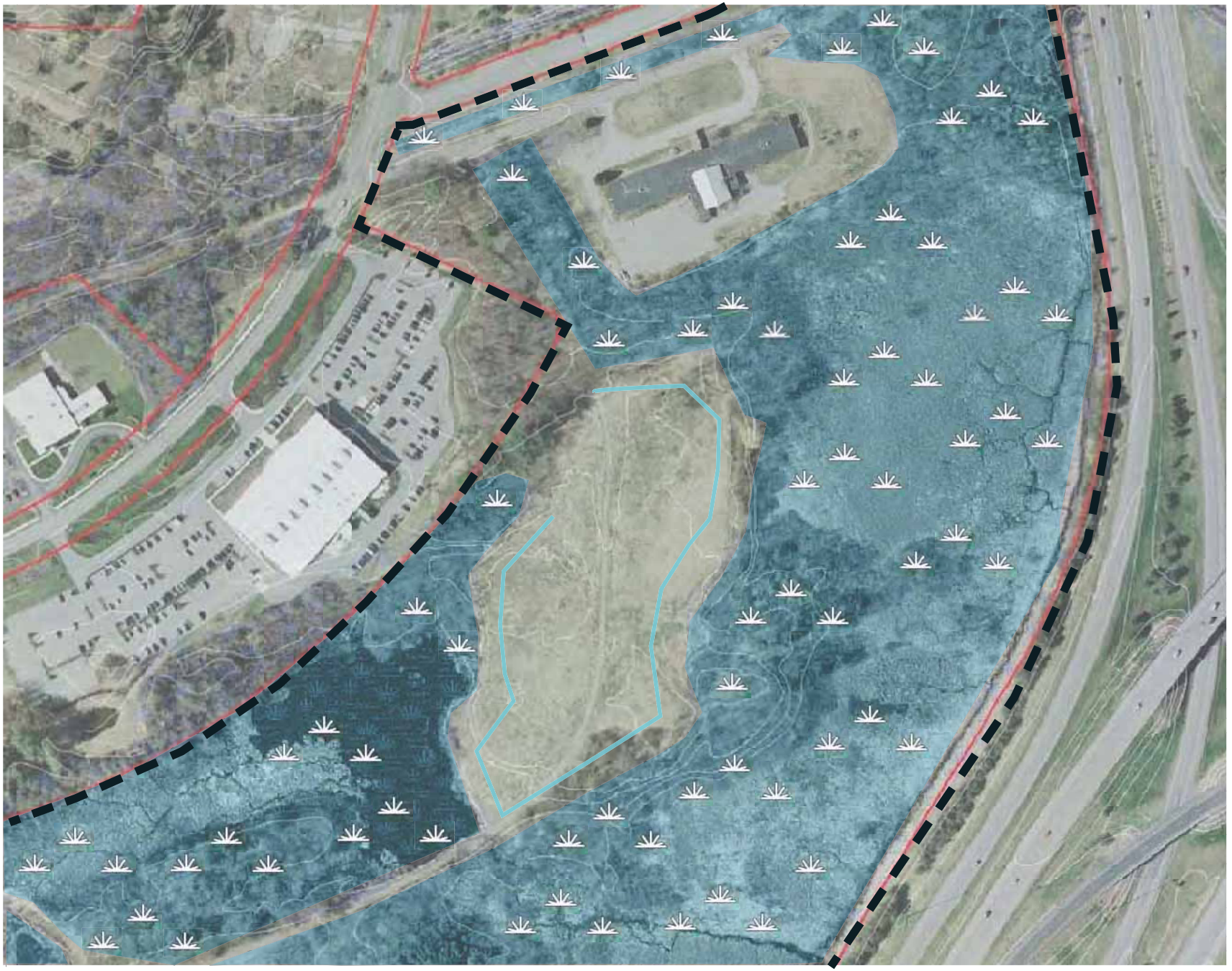
Conservation Land Context



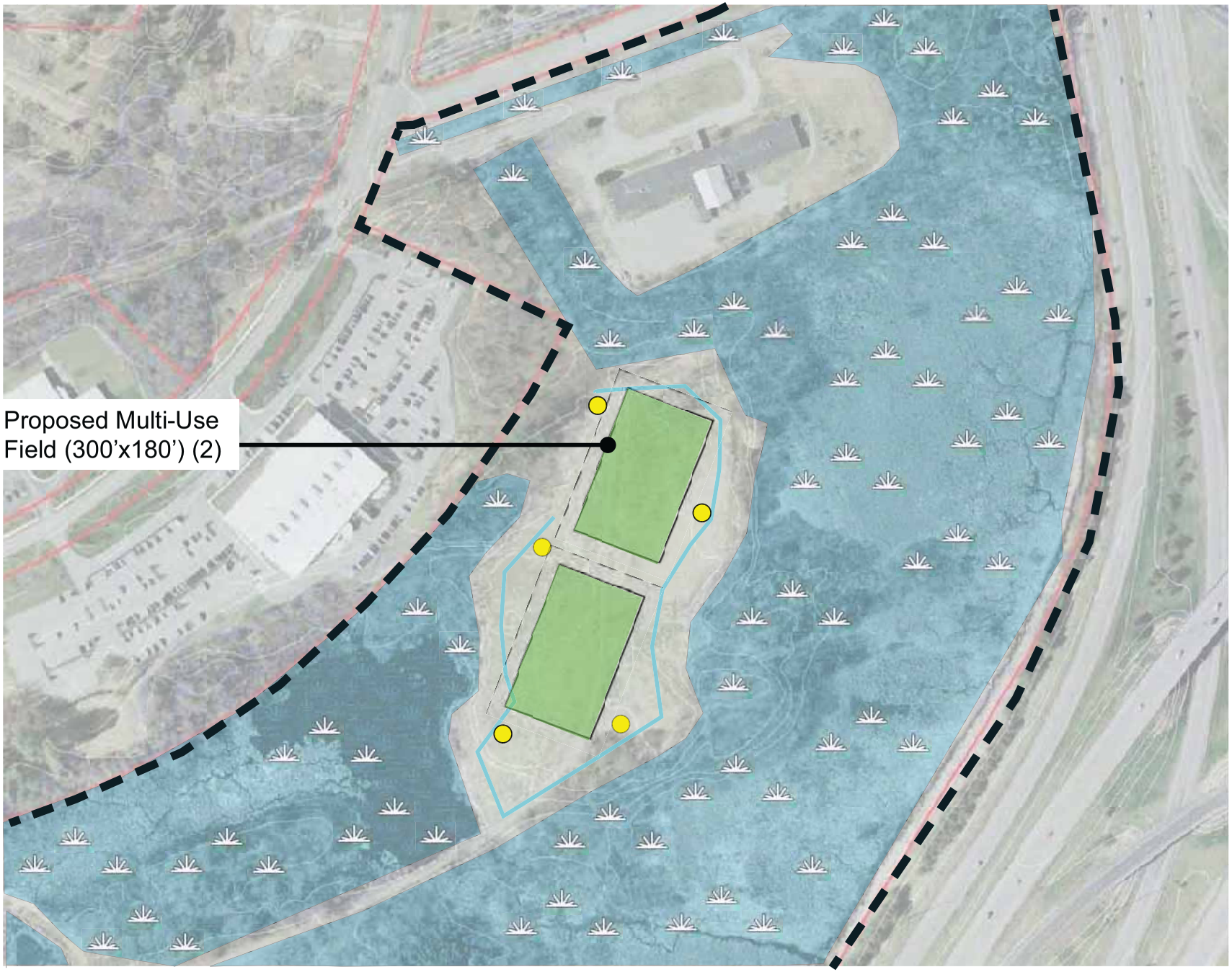
Existing Conservation Parcels Adjacent to Peverly Hill Road/Route 33 Property

Pease Site

Site Context



Pease Site



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Questions & Comments

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City of Portsmouth Comprehensive Recreation Needs Assessment

Next Steps