

**Regional District  
Of Nanaimo**

**2010  
Recreation Facility Use  
Analysis**

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## Introduction

In April 2010 PERC was retained by the Regional District of Nanaimo (RDN) to undertake an independent analysis of the geographic residency of the users of specific public recreation facilities that are supported by RDN taxpayers. The information from the analysis would be used for three purposes;

- For general management information about where users reside to support marketing campaigns and other service delivery decisions,
- To provide a basis for apportioning the net public subsidy to specific members of the RDN,
- To fulfill the requirements of existing facility cost sharing agreements for a survey of facility use every five years.

PERC has completed that assignment and is pleased to present the results in this report. It is hoped that the information will be useful in its own right, and that the methodology will also be helpful for future attempts to repeat the analysis on a periodic basis.

## Background

On completion of the Regional Services Review in 2000, the Regional District of Nanaimo entered into an agreement with the City of Nanaimo to share the costs, based on usage, of regionally significant recreation facilities and sportfields located in the School District No. 68 catchment area of the RDN. The District of Lantzville was added as a separate municipal participant after its incorporation in 2003.

Also in 2000, the Regional District entered into an agreement with the City of Parksville and the Town of Qualicum Beach to share the costs, based on usage, of certain regionally significant sportfields.

Both service agreements were renewed in 2005 for a five year term.

In the School District No. 68 the City of Nanaimo, Electoral Areas A, B, C and the District of Lantzville share in the operating costs of the City of Nanaimo's major recreation centres, selected City of Nanaimo sportfields, and two electoral area sportfields (Area B and Area C).

In the School District No. 69 the City of Parksville, Town of Qualicum Beach and Electoral Areas E, F, G and H share in the operating costs of two City of Parksville sportfield complexes, one Town of Qualicum Beach sportfield complex, and one sportfield in Electoral Area E.

As detailed in both agreements, the jurisdiction which owns the facility is responsible for the capital cost of that facility. Funds are transferred annually to the respected jurisdiction from other local government partners within the agreements to offset the operating costs associated with each facility and field.

The principles for cost sharing in both agreements are centred on the usage that residents of each electoral area, city, town, or district make of the selected facilities. Usage has been based upon two different types of collection methods. For arenas and sportfields, usage has been determined by tabulating residential addresses of memberships as determined from lists supplied by the

organizations representing both youth and adult organized leagues and associations. For aquatic facilities, usage, in the past, has been determined by a collection of surveys of drop in participants during public swim sessions.

The agreements require that every five years a survey is conducted to capture shifts in patron usage. The proportion of net costs are then adjusted for the subsequent five year period.

## Deliverables

The terms of reference for this project called for a final report to be delivered as an electronic document suitable for printing as well as a searchable electronic database for more flexible future use.

The report must include:

- In percentage terms, a breakdown of users of Recreation Facilities and Sportfields that reside in District 68 by area of residence (i.e. which of the participating members of the RDN the user resides in),
- In percentage terms, a breakdown of users of Sportfields that reside in District 69 by area of residence (i.e. which of the participating members of the RDN the user resides in),
- In percentage terms, a breakdown of users of Ravensong Aquatic Centre, Oceanside Place and Northern Community Recreation Programs that reside in District 69 by area of residence (i.e. which of the participating members of the RDN the user resides in),
- In percentage terms, a breakdown of users of two pools and three arenas in the City of Nanaimo that reside in the District 69 by area of residency.

The user data will be analyzed at a postal code level and postal codes will be attributed to a geographic member of the RDN (or “other” designation). The data base will be provided in Microsoft Excel format with one worksheet for each of the facility/sportsfield/program registration categories as follows.

### District 68 User for Recreation Facilities and Sportfields

- City of Nanaimo
- District of Lantzville
- Electoral Area A
- Electoral Area B
- Electoral Area C
- Other RDN Electoral Areas
- Other

### District 69 Users for Sportfields

- City of Parksville
- Town of Qualicum Beach
- Electoral Area E
- Electoral Area F
- Electoral Area G
- Electoral Area H
- Other RDN Electoral Areas
- Other

District 69 Users of Oceanside Place & Northern Community Recreation Services  
(community recreation programs)

- City of Parksville
- Town of Qualicum Beach
- Electoral Area E
- Electoral Area F
- Electoral Area G
- Electoral Area H
- Other RDN Electoral Areas
- Other

District 69 Users of Ravensong Aquatic Centre

- City of Parksville
- Town of Qualicum Beach
- Electoral Area F
- Electoral Area G
- Electoral Area H
- Other RDN Electoral Areas
- Other

District 68 Users of the three Nanaimo arenas and two Nanaimo indoor pools

- City of Nanaimo
- District of Lantzville
- Electoral Area A
- Electoral Area B
- Electoral Area C

Once the consultants were retained to deliver on the above described outcomes, it was decided that the Oliver Woods Community Centre in Nanaimo might, at some point in the future, become a regional use recreation facility and be added to the list of shared cost facilities within the RDN. Therefore, it was decided to investigate how much information was available about usage of this facility also.

## Methodology

Typically, a recreation facility has three modes of use; namely

- Drop in uses – where a patron makes a decision on a use-by-use basis to use the facility, and typically pays a user fee to use a facility during a public use session;
- Program uses – where a user typically pre-commits, through a registration process, to a series of uses, usually involving some form of instruction, and then attends for most or all of those programmed uses;
- Rental uses – where a group or individual rents a space or a portion of a space and then controls of the uses and users of that rented space for the period of the rental.

In the case of the three public swimming pools in the scope of this study, all three modes of use apply in significant portions. In the case of the four arena facilities, the vast majority of use is in the rental category, with some program data and some drop in use (not measured in this case).

For sportfields, the vast majority of use relates to the rental category, with only incidental use in the program or drop in types of use.

Based on the three modes of use, three types of data were collected using three separate techniques.

### ***Pool User Survey***

Since the pools enjoy a significant amount of drop in use, it was decided that public drop in users would be sampled and each would be asked to provide their residential address. A variety of days of the week and times of day were chosen at each pool where there was space available in the pool for drop in use. A team of two researchers (i.e. students in the recreation and tourism program at Vancouver Island University) were assigned to each of the identified sessions. They set up a large sign that illustrated what they were doing (see **Appendix A**) and approached all parties as they exited the building, asking three questions:

1. How many members of the party used the facility (i.e. changed into a bathing suit or used equipment in the associated fitness centre),
2. How many of those used the facility for drop in use (i.e. a paid use that was not part of a registered program or group rental),
3. The detailed residential address of the party.

The teams found that they were able to approach the vast majority of parties leaving the facility. They missed approaching about 2% of the parties during particularly busy periods. The vast majority of parties that were approached agreed to answer all three questions. About 4% declined to participate, primarily due to lack of time.

The list of sessions during which users were surveyed is included in **Appendix A**.

There is no reason to indicate that the survey period, May and June of 2010, is atypical of users or uses during other months of that year. There is also no reason to assume that the year 2010 is atypical of recent years. Therefore, the consultants believe that this methodology, which solicits residency from a large sample of facility users from each pool, is quite valid and reliably represents all drop in users of each pool.

Analysis of use of each pool's operating format indicates that drop in use represents about 50% of all use; with program uses representing a further 40% and rentals representing the final 10% of all uses. This is consistent across all three pools, and is quite consistent with BC's public indoor pools.

### ***Program Registration Database***

Both the City and Regional District of Nanaimo utilize a sophisticated program registration system called CLASS. This system records and reports on all registrations and registrants including their detailed address. Therefore, this information is available in report form and can be sorted by facility and session.

For the four arenas, three pools, and the Oliver Woods Community Centre, the CLASS data was extracted and analyzed from the City's and RDN's databases. All programs for the previous twelve months were used in the analysis.

For the pools that information was used to determine breakdown by residency of the 40% of all pool uses that relate to program uses. For arenas, it was used to determine the 10% of all uses associated with this category of use.

For the RDN, the program registration data base was also used to determine, for management purposes, the residency of all registrants in programs which did not have a pool or arena base of facility provision. This was used for the Northern Community Recreation Services analysis.

### ***User Group Membership Lists***

All significant user groups that rented local sportfields, arenas or pools were identified by the City and the RDN staff. Each was requested to provide a list of all members along with the residential address for each member. This proved to be a somewhat more involved process than it was first thought, as many groups either did not have, or were in the process of updating their lists. Repeated attempts were made to solicit all significantly sized groups to the point where information was obtained from any groups that were of significant size. These lists were then formatted by the consultant in a manner where addresses could be categorized into areas of residency and checked.

The information was then used to provide 100% of field use analysis, 90% of arena use analysis and 10% of pool use analysis. It was also used to provide information on 100% of the Northern Recreation Services analysis.

Very few groups were identified that had used the Oliver Woods Community Centre.

Overall, information was received from 39 user groups which collectively represented 6979 users of indoor pools, arenas, and sportfields.

## **Analysis of Pool Use**

The use of the three aquatic venues was calculated and analyzed as follows in the next two subsections. All three categories of use were used to derive usage in each case.

### ***Ravensong Aquatic Centre***

At present Ravensong Aquatic Centre, which is located within the Town of Qualicum Beach, is funded by way of assessment. The following data and discussion identify current proportional usage and the impact a change away from assessment to a usage based formula would have on the contribution levels of each jurisdiction.

Usage for the Ravensong Aquatic Centre, is summarized in the next three figures. The raw data (users and uses) used to start the analysis is summarized in **Figure One**. The first row represents the actual number of drop in swims recorded by the survey teams in the sample survey conducted in May and June of 2010. The second row represents the number of uses a resident of each jurisdiction made in the program category for a program based at Ravensong. The third row represents the number of members of all groups that rented space at Ravensong that reside in each of the jurisdictions.

**Figure One**  
**Summary of Raw Usage Data at Ravensong**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
User Survey	0	0	0	8	62	57	27	0	108	152	2	24	440
Program Registration	0	0	0	1,257	2,534	2,773	1,283	48	3,927	2,292	NA	443	14,557
Group Rental	0	0	0	9	13	31	14	2	38	53	0	3	163

NA indicates that the data is not available. The RDN program database lumped this information under "other".

In order to use the raw data in *Figure One*, it is first turned into percentages. That is done in *Figure Two*.

**Figure Two**  
**Raw Usage Data for Ravensong in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
User Survey	0	0	0	1.82	14.09	12.95	6.14	0	24.55	34.55	.45	5.45	100
Program Reg	0	0	0	8.64	17.41	19.05	8.81	.33	26.98	15.75	NA	3.04	100.01
Group Rental	0	0	0	5.52	7.98	19.02	8.59	1.23	23.31	32.52	0	1.84	100.01

But the raw percentages are not usable as the first row represents only a sample of uses, the second row represents all program registration uses, and the third row represents only a percentage of members, not uses. To properly determine how these percentages relate to total uses of the facility, they are multiplied by the proportion of use that each category of use makes up of the total annual facility uses.

In this case, the percentage breakdowns for the first row are multiplied by .5 to indicate that public uses make up 50% of total facility uses. The second row percentages are multiplied by .4 to indicate that programs represent another 40% of total facility uses. And, the third row percentages are multiplied by .1 to represent the fact that group rentals constitute only 10% of all annual facility uses. The resultant proportions represent the correct "weight" of each row, and therefore, can then be added to equal 100% of uses that are derived from each of the areas of residency. *Figure Three* shows that final analysis. Only *Figure Three* can be used as a basis for determining the residency of uses of this facility.



**Figure Three**  
**Proportion of All Ravensong Uses from Each Jurisdiction**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>User Survey</b>	0	0	0	1.0	7.0	6.5	3.0	0	12.5	17.5	0	2.5	50
<b>Program Reg</b>	0	0	0	3.6	6.9	7.6	3.6	0	10.8	6.3	NA	1.2	40
<b>Group Rental</b>	0	0	0	.6	.8	1.9	.8	.1	2.3	3.3	0	.2	10
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5.2</b>	<b>14.7</b>	<b>16.0</b>	<b>7.4</b>	<b>0.1</b>	<b>25.6</b>	<b>27.1</b>	<b>0</b>	<b>3.9</b>	<b>100</b>

It is important to note that when attributing the net costs for each of the participating jurisdictions, the percentages in *Figure Three* could not be used as they are now. Jurisdictions which don't participate in the cost would need to be netted out, as they would pay nothing, and their share would need to be distributed to the participating jurisdictions before final calculations are made. In this case, if the only jurisdictions that participate in the cost sharing are Electoral Areas F, G, H and Parksville and Qualicum Beach, then the remaining 9.2% use by Electoral Area E, Nanaimo, and Other would be netted out, and the results would be as follows:

- Electoral Area F taxpayers would pay 16.2% of the net cost,
- Electoral Area G taxpayers would pay 17.6% of the net cost,
- Electoral Area H taxpayers would pay 8.1% of the net cost,
- The City of Parksville taxpayers would pay 28.2% of the net cost,
- The Town of Qualicum Beach taxpayers would pay 29.8% of the net cost.

The total would then equal 100% of the net cost.

### *Nanaimo Aquatic Facilities*

Usage for the Nanaimo Aquatic Centre and the Beban Park Aquatic Centre are combined because the membership survey and the program database don't distinguish between the two. The raw data (users and uses) used to start the analysis is summarized in *Figure Four*. The first row represents the actual number of drop in swims recorded by the survey teams in the sample survey conducted in May and June of 2010. The second row represents the number of times a resident of each jurisdiction registered for a program based at a Nanaimo pool, not the number of program uses. The third row represents the number of members of all groups that rented space at the two Nanaimo aquatic facilities that reside in each of the jurisdictions.

**Figure Four**  
**Summary of Raw Usage Data at Nanaimo Pools**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>User Survey</b>	39	17	22	34	2	4	4	930	4	10	39	99	1204
<b>Program Reg</b>	152	86	155	60	10	16	0	5130	20	20	291	157	6097
<b>Group Rental</b>	13	0	1	7	1	0	0	327	3	2	27	14	395

In order to use the raw data in *Figure Four*, it is first turned into percentages. That is done in *Figure Five*.

**Figure Five**  
**Summary of Raw Usage Data for Nanaimo Pools in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>User Survey</b>	3.24	1.41	1.83	2.82	.17	.33	.33	77.24	.33	.83	3.24	8.22	99.99
<b>Program Reg</b>	2.49	1.41	2.54	.98	.16	.26	0	84.14	.33	.33	4.77	2.58	99.99
<b>Group Rental</b>	3.29	0	.25	1.77	.25	0	0	82.78	.76	.51	6.84	3.54	99.99

But the raw percentages are not usable as the first row represents only a sample of uses, the second row represents program registrations rather than uses, and the third row represents only a percentage of members. To properly determine how these percentages relate to total uses of the facility, they are multiplied by the proportion of use that each category of use makes up of the total annual facility uses.

In this case, the percentage breakdowns for the first row are multiplied by .5 to indicate that public uses make up 50% of total facility uses. The second row percentages are multiplied by .4 to indicate that programs represent another 40% of total facility uses. And, the third row percentages are multiplied by .1 to represent the fact that group rentals constitute only 10% of all annual facility uses. The resultant proportions can then be added to equal 100% of uses that are derived from each of the areas of residency. *Figure Six* shows that final analysis. Only *Figure Six* can be used as a basis for determining residency of uses.

**Figure Six**  
**Proportion of Nanaimo Pool Uses from Each Jurisdiction**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>User Survey</b>	2	1	.5	2	0	0	0	36.5	.5	.5	1.5	5.5	50.0
<b>Program Reg</b>	1	0	1	0	0	0	0	34.6	0	0	2.0	1.2	39.8
<b>Group Rental</b>	.3	0	0	.2	0	0	0	8.2	.1	.1	.7	.4	10.0
<b>Totals</b>	<b>3.3</b>	<b>1.0</b>	<b>1.5</b>	<b>2.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>79.3</b>	<b>.6</b>	<b>.6</b>	<b>4.2</b>	<b>7.1</b>	<b>99.8*</b>

- numbers don't add to 100 due to rounding

It is important to note that when attributing the net costs for each of the participating jurisdictions, the percentages in *Figure Six* cannot be used as they are now. Non participating jurisdictions need to be netted out, as they will pay nothing, and their share needs to be distributed to the participating jurisdictions before final calculations are made. In this case, since only Nanaimo and Lantzville and Electoral Areas A, B, and C contribute to District 68 pools, the remaining 10.5% of uses need to be netted out and the result is as follows:

- Electoral Area A taxpayers would pay 3.7% of the net cost,
- Electoral Area B taxpayers would pay 1.1% of the net cost,
- Electoral Area C taxpayers would pay 1.7% of the net cost,
- District of Lantzville taxpayers would pay 4.7% of the net cost,
- The City of Nanaimo taxpayers would pay 88.8% of the net cost,

And the total would be 100% of the costs.

## Analysis of Arena Use

There are four arena sites in the study area; three in the City of Nanaimo and one in Parksville. The vast majority of all uses in these arenas are attributed to group rentals. Since the small number of programmed uses was relatively easy to collect, it is also added to the analysis. However, for the relatively few drop in uses, it was not cost effective to survey them to determine the area of residency for these users.

### District 68 (City of Nanaimo Arenas)

Usage for the three arena facilities which are located within the City of Nanaimo is summarized in the next three figures. The raw data (users and uses) used to start the analysis is summarized in *Figure Seven*. The first row represents the number of times a resident of each jurisdiction registered for a program based at those arenas, not the number of uses. The second row represents the number of members of all groups that rented ice that reside in each of the jurisdictions.

**Figure Seven**  
**Summary of Raw Usage Data at Nanaimo Arenas**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Registration</b>	216	85	244	32	10	6	0	4015	6	8	295	163	5080
<b>Group Rental</b>	81	7	60	6	8	16	7	1108	17	9	59	49	1427

In order to use the raw data in *Figure Seven*, it is first turned into percentages. That is done in *Figure Eight*.

**Figure Eight**  
**Raw Usage Data for Nanaimo Arenas in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Reg</b>	4.25	1.67	4.80	.63	.20	.12	0	79.04	.12	.16	5.81	3.21	100.01*
<b>Group Rental</b>	5.68	.49	4.20	.42	.56	1.12	.49	77.65	1.19	.63	4.13	3.43	99.99*

- numbers don't add to 100 due to rounding to whole numbers

But the raw percentages are not usable as the first row represents program registrations rather than uses, and the second row represents only a percentage of members rather than uses. To properly determine how these percentages relate to total uses of the facility, they are multiplied by the proportion of use that each category of use makes up of the total annual facility uses.

In this case, the percentage breakdowns for the first row are multiplied by .1 to indicate that programs account for only 10% of total facility uses. The second row percentages are multiplied by .9 to indicate that represent the remaining 90% of total facility uses. The resultant proportions can then be added to equal 100% of uses that are derived from each of the areas of residency. *Figure Nine* shows that final analysis. Only *Figure Nine* can be used as a basis for determining the residency of users.

**Figure Nine**  
**Proportion of All Nanaimo Arena Uses from Each Jurisdiction**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Reg</b>	.4	.2	.5	.1	0	0	0	7.9	0	0	.6	.3	10
<b>Group Rental</b>	5	0	4	0	1	1	0	70	1	1	4	3	90
<b>Totals</b>	<b>5.4</b>	<b>.2</b>	<b>4.5</b>	<b>.1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>77.9</b>	<b>1</b>	<b>1</b>	<b>4.6</b>	<b>3.3</b>	<b>100</b>

It is important to note that when attributing the net costs for each of the participating jurisdictions, the percentages in *Figure Nine* cannot be used as they are now. Non participating jurisdictions need to be netted out, as they will pay nothing, and their share needs to be distributed to the participating jurisdictions before final calculations are made. In this case, since only Nanaimo and Lantzville and Electoral Areas A, B, and C contribute to District 68 arenas, the remaining 7.4% of uses need to be netted out and the result is as follows:

- Electoral Area A taxpayers would pay 5.8% of the net cost,
- Electoral Area B taxpayers would pay .2% of the net cost,
- Electoral Area C taxpayers would pay 4.9% of the net cost,
- District of Lantzville taxpayers would pay 5.0% of the net cost,
- The City of Nanaimo taxpayers would pay 84.1% of the net cost,

And the total would be 100% of the costs.

#### **District 69 (Oceanside Place Arena)**

Similar to Ravensong Aquatic Centre, Oceanside Place, which is located within the City of Parksville, is currently funded by way of assessment. The following data and discussion identify current proportional usage and the impact a change away from assessment to a usage based formula would have on jurisdiction contribution levels.

Usage for Oceanside Place, is summarized in the next three figures. The raw data (users and uses) used to start the analysis is summarized in *Figure Ten*. The first row represents the number of times a resident of each jurisdiction visited Oceanside for a program based at that arena. The second row represents the number of members of all groups that rented ice at Oceanside Place that reside in each of the jurisdictions.

**Figure Ten**  
**Summary of Raw Usage Data at Oceanside Arena**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Registration</b>	0	0	0	341	833	860	179	351	936	378	0	42	3920
<b>Group Rental</b>	1	0	0	113	74	192	16	30	310	133	2	7	878

In order to use the raw data in *Figure Ten*, it is first turned into percentages. That is done in *Figure Eleven*.

**Figure Eleven**  
**Raw Usage Data for Oceanside Place in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Reg</b>	0	0	0	8.70	21.25	21.94	4.57	8.95	23.88	9.64	0	1.07	100
<b>Group Rental</b>	.11	0	0	12.87	8.43	21.87	1.82	3.42	35.31	15.15	.23	.80	100.01*

\* numbers don't add to 100 due to rounding to whole numbers

But the raw percentages are not usable as the first row represents program visits, but the second row represents only a percentage of members not uses. To properly determine how these percentages relate to total available uses of the facility (which is total use minus drop in use), they are multiplied by the proportion of use that each category of use makes up of the total annual available facility uses. In this case, the percentage breakdowns for the first row are multiplied by .1 to indicate that public uses make up 10% of available facility uses. The second row percentages are multiplied by .9 to indicate that programs represent the remaining 90% of available facility uses. The resultant proportions can then be added to equal 100% of uses that are derived from each of the areas of residency. *Figure Twelve* shows that final analysis. Only *Figure Twelve* can be used as a basis for determining the residency of uses.

**Figure Twelve**  
**Proportion of All Oceanside Arena Uses from Each Jurisdiction**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Reg</b>	0	0	0	.9	2.1	2.2	.5	.9	2.4	1.0	0	.1	10.1
<b>Group Rental</b>	0	0	0	12.0	7.0	20.0	2.2	3.0	31.0	14.0	0	1.0	90
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12.9</b>	<b>9.1</b>	<b>22.2</b>	<b>2.5</b>	<b>3.9</b>	<b>33.4</b>	<b>15.0</b>	<b>0</b>	<b>1.1</b>	<b>100.1*</b>

\* totals don't add to 100 due to rounding of data

It is important to note that when attributing the net costs for each of the participating jurisdictions, the percentages in *Figure Twelve* could not be used as they are now. Non participating jurisdictions would need to be netted out, as they would pay nothing, and their share would need to be distributed to the participating jurisdictions before final calculations are made. In this case, since the costs of the Oceanside Arena would be shared only by Parksville, Qualicum Beach and Electoral Areas E, F, G, and H, the remaining 5% of uses from non participating jurisdictions needs to be netted out. The result would be as follows:

- Electoral Area E taxpayers would pay 13.6% of the net cost,
- Electoral Area F taxpayers would pay 9.6% of the net cost,
- Electoral Area G taxpayers would pay 23.3% of the net cost,
- Electoral Area H taxpayers would pay 2.6% of the net cost,
- The City of Parksville taxpayers would pay 35.1% of the net cost,
- The Town of Qualicum Beach taxpayers would pay 15.8% of the net cost,

And the total would be 100% of the costs.

## Analysis of Sportfield Use

Almost all available capacity for sportfields within the Regional District of Nanaimo is rented to groups. Therefore, the analysis of usage relates almost exclusively to a breakdown in the membership of those groups. The raw data (users) used to start the analysis is summarized in *Figure Thirteen*. The only row in this table represents the actual number of members in all the groups that use each of the categories of sportfields. The assumption is that each group, and therefore each member, used the fields weekly and therefore about the same as all other users. Based on that assumption, the number of members relates directly to the proportion of use from each of the jurisdictions.

**Figure Thirteen**  
**Summary of Raw Membership Data for Sportfield Use**

Location of Facilities	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>District 68 Fields</b>	100	19	105	23	19	10	4	2490	22	12	206	62	3072
<b>District 69 Fields</b>	1	0	0	111	186	157	46	6	260	161	3	7	938

In order to use the raw data in *Figure Thirteen*, it is first turned into percentages. That is done in *Figure Fourteen*.

**Figure Fourteen**  
**Summary of Percentage Breakdown of Field Usage**

Location of Facilities	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>District 68 Fields</b>	3.26	.62	3.42	.75	.62	.33	.13	81.05	.72	.39	6.71	2.02	100.02*
<b>District 69 Fields</b>	.11	0	0	11.83	19.83	16.74	4.90	.64	27.72	17.16	.32	.75	100*

\* totals don't add to 100 due to rounding of data

It is important to note that when attributing the net costs for each of the participating jurisdictions, the percentages in *Figure Fourteen* cannot be used as they are now. Non participating jurisdictions need to be netted out, as they will pay nothing, and their share needs to be distributed to the participating jurisdictions before final calculations are made. In this case, since only Nanaimo and Lantzville and Electoral Areas A, B, and C contribute to District 68 fields, the remaining 5% of uses need to be netted out and the result is as follows:

- Electoral Area A taxpayers would pay 3.4% of the net cost,
- Electoral Area B taxpayers would pay .6% of the net cost,
- Electoral Area C taxpayers would pay 3.6% of the net cost,
- District of Lantzville taxpayers would pay 7.1% of the net cost,
- The City of Nanaimo taxpayers would pay 85.3% of the net cost,

And the total would be 100% of the costs.



And, since only Parksville, Qualicum, and Electoral Areas E, F, G, and H contribute to District 69 fields, the remaining 2% of uses need to be netted out, and the result is as follows:

- Electoral Area E taxpayers would pay 12.0% of the net cost,
- Electoral Area F taxpayers would pay 20.2% of the net cost,
- Electoral Area G taxpayers would pay 17.1% of the net cost,
- Electoral Area H taxpayers would pay 5.0% of the net cost,
- The City of Parksville taxpayers would pay 28.2% of the net cost,
- The Town of Qualicum Beach taxpayers would pay 17.5% of the net cost,

And the total would be 100% of the costs.

## Analysis of Use of the Oliver Woods Community Centre

Data for the uses associated with the Oliver Woods Community Centre are incomplete. A significant proportion of the total use of the facility is within the drop in and program categories, and this project did not include those uses. This represents a serious limitation in the analysis. Also, only two groups that rented space at the gymnasium at that facility responded to the user group membership survey. Therefore, while the facility does appear to have a user base which extends beyond the City limits, the current data is not sufficient to reliably apportion operating costs, even if the City and the RDN wished to add this facility to a share cost agreement.

Although the data is currently too insufficient to be used for analysis of the residency of use of this facility, what data is available has been summarized in *Figure Fifteen*. The first and only row represents area of residency of two groups that rent gym time in the facility.

**Figure Fifteen**  
**Summary of Raw Usage Data of Oliver Woods Community Centre**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Group Rental</b>	9	0	2	2	3	3	0	58	2	2	3	6	90

In order to use the raw data in *Figure Fifteen*, it is first turned into percentages. That is done in *Figure Sixteen*.

**Figure Sixteen**  
**Summary of Raw Usage Data of Oliver Woods CC in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Group Rental</b>	10	0	2	2	3	3	0	64	2	2	3	7	98*

\* totals don't add to 100 due to rounding of data

As mentioned above, the data is *Figures Fifteen and Sixteen* cannot be synthesized into a complete picture of total use, as the information about drop in use makes up a large part of the total use picture, and that data is not available.

## Analysis of Northern Recreation Services Registrants

The RDN also provided data from its CLASS program data base that related to programs not accommodated within arenas or pools. This data is summarized in the following two figures.

*Figure Seventeen* summarizes raw data which relates to all programs for the most recent twelve month period. It represents all program uses.

**Figure Seventeen**  
**Summary of Raw Usage Data for RDN Programs**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Uses</b>	1	0	0	1137	2167	3031	1255	120	4593	2123	0	222	14,649

In order to use the raw data in *Figure Seventeen*, it is first turned into percentages. That is done in *Figure Eighteen*.

**Figure Eighteen**  
**Summary of Raw Usage Data in Percentage Terms**

Category of Use	Area A	Area B	Area C	Area E	Area F	Area G	Area H	Nanaimo	Parksville	Qualicum Beach	Lantzville	Other	Total
<b>Program Uses</b>	0	0	0	7.8	14.8	20.7	8.6	.8	31.4	14.5	0	1.5	100.1*

\* totals don't add to 100 due to rounding of data

The information in **Figures Seventeen and Eighteen** are provided only to support management and marketing decisions.

## Summary

Based on the analysis above, the consultants are able to draw a number of conclusions.

1. The methodology used for this project is sufficiently valid and reliable to be used to apportion net costs of operation for pools, arenas, and sportfields. While no data is perfect, the consultants assert that the information available and its analysis renders results which are more reliable and valid than industry standard levels of confidence. Industry standard level of confidence in survey data is plus or minus 5% nineteen times out of twenty. For this study, the combination of data sources with different levels of reliability are complicated to combine into a cohesive confidence level. However, the overall result is almost certainly within 2.5% nineteen times out of twenty.
2. This means that if the methodology were repeated consistently, use by area of residency would have to shift by more than 2.5% for it to be reliably picked up (nineteen times out of twenty) by the process.
3. The information available for the Oliver Woods Community Centre is not sufficient to make any overall assessment about the area of residency of users. It is, however, sufficient to conclude that the user base for this facility extends beyond the Nanaimo City limits. In a future project to assess uses of this facility, a survey of drop in uses should be added, CLASS data should be analyzed for all programs which occur in this facility, and more groups that rent space should be surveyed.
4. The methodology used for this project could fairly easily be incorporated into the City and RDN operating plan and implemented internally in future, negating the need for retaining outside expertise to achieve the same outcome. However, the RDN and the City may wish to have an objective outside agency to collect the data on their behalf.

# Appendix A – Details of Pool Use Survey

## 1. Survey Schedule for Three Public Pools

Ravensong Aquatic Centre, Qualicum Beach

Timeslot	Covering	Hours
1. 7am to 9:30am Monday May 31st	Early bird swim	2.5
2. 10am to 11:30am Monday May 31st	Public swim	1.5
3. 11am to 1:30pm Sunday May 16th	Public swim	1.5
4. 2pm to 4:30pm Sunday May 16 <sup>th</sup>	Public swim	2.5
5. 7:30pm to 10pm Friday May 28th	Public swim	2.5
6. 10am to 11:30am Monday May 31 <sup>st</sup>	Parent and Tot Nifty Fifty	1.5
7. 11am to 1:30pm Tuesday May 18 <sup>th</sup>	Arthritic Swim Parent and Tot Noon length swim Adult only lengths	2.5
8. 7:30pm to 10:30pm Wednesday May 26 <sup>th</sup>	Everyone welcome Adult swim	3
9. 7:30am to 9:30am Thursday May 27 <sup>th</sup>	Early bird swim	2.5
10. 7:30pm to 10pm Friday May 28 <sup>th</sup>	Family swim Teen swim	2.5
11. 8:30am to 10:30am Friday May 28 <sup>th</sup>	Morning aquasize	2.5
12. 1pm to 4pm Saturday May 29th	Noon lengths Everyone welcome	3
13. 9pm to 12pm Thursday June 3rd	Aquasize	2
<b>Total</b>		<b>30</b>

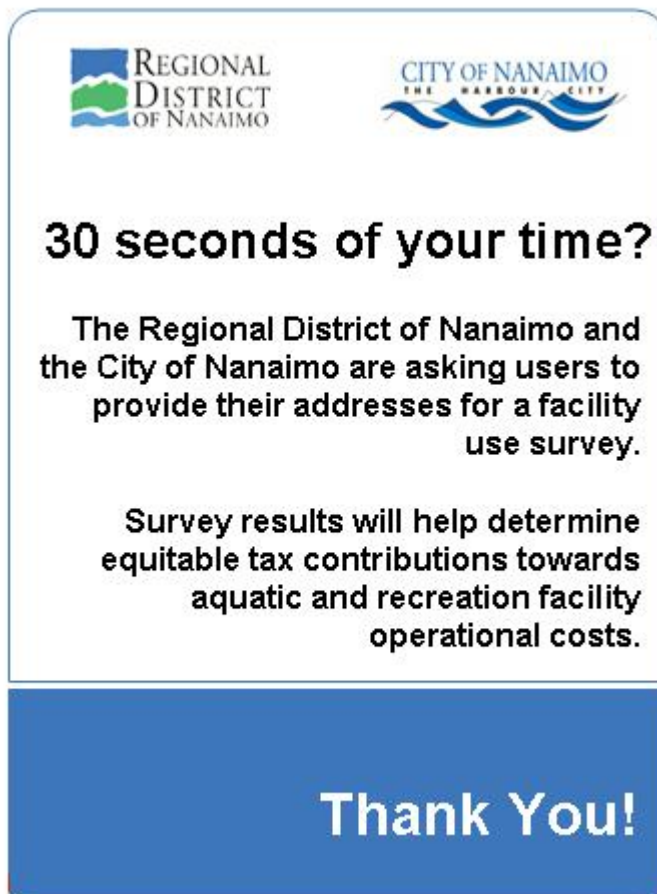
Nanaimo Aquatic Centre, Nanaimo

Timeslot	Covering	Hours
1. 7am to 9am Monday May 17th	Early bird length swimming	2.0
2. 1pm to 2:30pm Saturday May 15th	Weekend swim	1.5
3. 11am to 1:30pm Saturday May 22nd	??	2.5
4. 12am to 1:30pm Tuesday May 25th	Noon length swimming	1.5
5. 9am to 10:30am Wednesday May 26th	Morning swim	1.5
6. 7pm to 9:30pm Thursday May 27th	Evening swimming	2.5
7. 8pm to 10:30pm Friday May 28th	Teen swim Free swimming	2.5
8. 8am to 10:30am Saturday May 29th	Early morning weekend swimming	2.5
9. 1pm to 2:30pm Saturday May 22nd	Weekend swim on a long weekend	1.5
10. 8pm to 10pm Tuesday June 3rd	Public swim	2
<b>Totals</b>		<b>20</b>

## Beban Park Aquatic Centre, Nanaimo

<b>Timeslot</b>	<b>Covering</b>	<b>Hours</b>
1. 7:30pm to 9pm Monday May 17 <sup>th</sup>	Everyone welcome	1.5
2. 11am to 3:30pm Tuesday May 18 <sup>th</sup>	Family and fitness Aqasizes	1.5
3. 12:30pm to 3:30pm Tuesday May 18 <sup>th</sup>	Noon length swim Seniors therapy Seniors splish splash	3.0
4. 11am to 2pm Saturday May 29th	Leisure only	3.0
5. 2pm to 4:30pm Saturday May 29th	Everyone welcome	2.5
6. 5pm to 7:30pm Saturday May 29th	Leisure only	2.5
7. 11am to 12:30pm Sunday May 30th	Leisure only	1.5
8. 2pm to 4:00pm Sunday May 30th	Everyone welcome	2.5
9. 5:30 to 7:3pm Thursday June 3rd	Everyone welcome	2.0
<b>Totals</b>		<b>20</b>

*2. Copy of Sign at Each Survey Station (different sign for City and RDN facilities)*





## **30 seconds of your time?**

**The Regional District of Nanaimo is asking users to provide their addresses for a facility use survey.**

**Survey results will help determine how tax contributions are shared to fund this facility.**

**Thank You!**

## Appendix B – Calculations for Sharing Cost of City of Nanaimo Facilities

The body of the report provides information separately for each type of facility. However, the facility sharing agreement for Nanaimo stipulates that the cost of the City’s pools and arenas be lumped together. The following figure does that.

**Figure Nine**  
**Proportion of All Nanaimo Arena Uses from Each Jurisdiction**

Category of Use	Area A	Area B	Area C	Nanaimo	Lantzville	Total
<b>Total of Pool Use</b>	3.7	1.1	1.7	88.6	4.7	99.8
<b>Total of Arena Use</b>	5.8	.2	4.9	84.1	5.0	100
<b>Total of All Facility Use</b>	4.75	.65	3.3	86.35	4.85	99.9

It is important to understand that this study did not determine the total number of uses of Nanaimo pools or arenas. It simply determined the percentages of use. So, all we can do to combine the two rows above is to calculate an average and assume that the total number of uses of arenas was similar to the total number of uses of pools. If they are not, the more accurate total percentage on the bottom row would migrate more toward the percentage in the row above that had more uses.