

Shuswap Transit System Service Plan 2001/02

March 2001

Shuswap Transit Service Plan - 2001/02

Background and Ridership History

In 1990 a Transportation Feasibility Study, cost-shared by BC Transit and the District of Salmon Arm, put forth recommendations for a local public transportation system based on Local Transit Objectives (Appendix A). These objectives established by Council laid the groundwork for the current Shuswap Transit System. Outlined below is a 9-year historical summary of the Shuswap Transit System.

October 15 1991 - Service begins with a 22 seat minibus providing basic conventional service every 90 minutes, Monday through Saturday from approx. 9 a.m. to 3 p.m. On the same day, custom transit for persons with disabilities (handyDART) was started using a lift-equipped van. The service is directed mainly at seniors for shopping and medical trips.

November 1995 - The service is expanded to operate from approx. 7 a.m. to 6 p.m. The intent is to make the service available to commuters and students. Taxi supplement service introduced to provide flexibility and increase productivity on the door to door service.

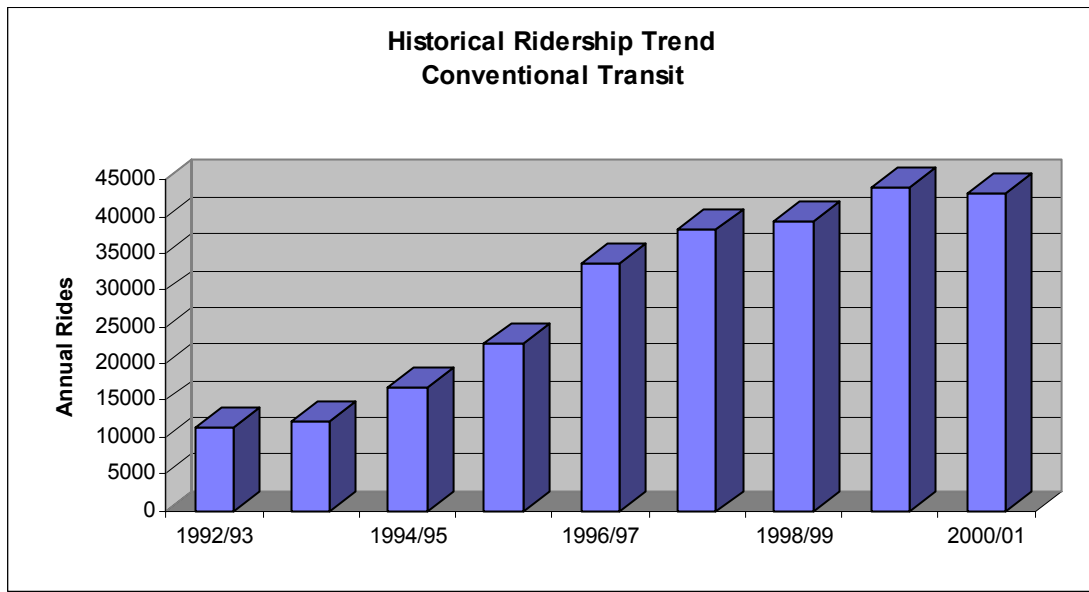
April 1995 - Regional service to Sorrento & Eagle Bay and to Deep Creek/Silver Creek commences.

December 1998 - The 5:45 West Loop trip is reallocated to provide an additional trip to Canoe.

Other minor re-routings and time adjustments on both the Salmon Arm and Regional service took place over this period. Essentially, however, the service has remained the same over the last ten years. A number of factors, including increased population and ridership and local objectives for the service indicate that the time is ripe for a review of the service and to explore the opportunity for expansion.

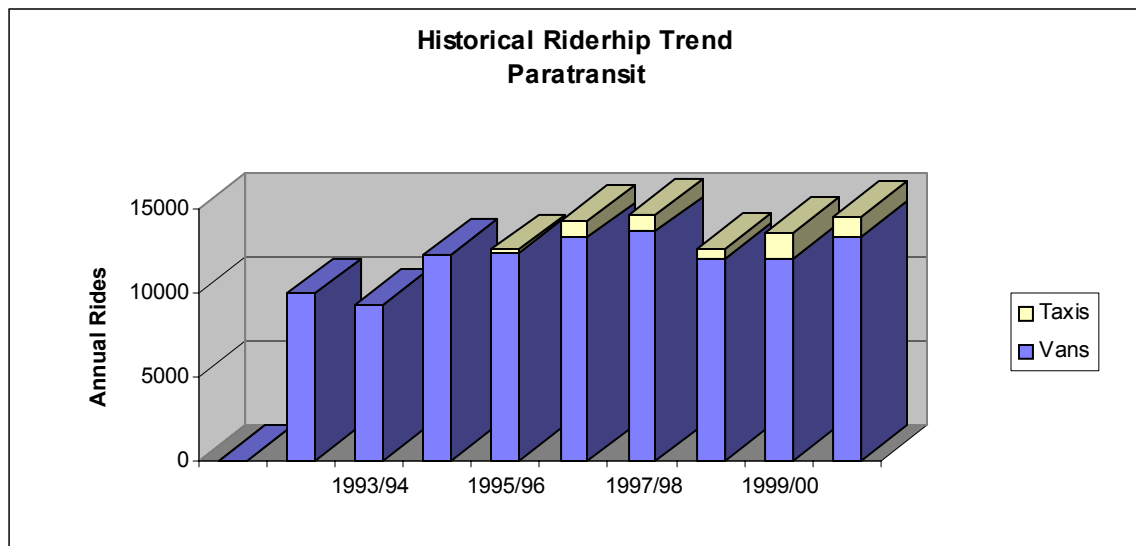
The following graphs outline ridership history since 1990/91.

Conventional ridership shows:



- Steady ridership increases of approximately 10% to 1995/96 (23,000 annually or 75 rides per day)
- Significant ridership increase in 1996/97 (almost 34,000) as a result of service expansion of hours
- Since expansion in 1996 ridership has continued to grow to just over 44,000 rides last year. This equates to an average of 150 rides on weekdays and 110 on Saturdays.
- Productivity of the service as measured by rides per hour has increased steadily from 11.4 in 1996 to 14.4 in 2000.

The results from a conventional transit 2-week passenger count, undertaken in March 2000 showed ridership to be slightly higher than the 1999/00 average. Weekday ridership over the count period averaged 159 passengers, 10.4% higher than during the same count in February 1999. Details of this count are outlined in Appendix C.

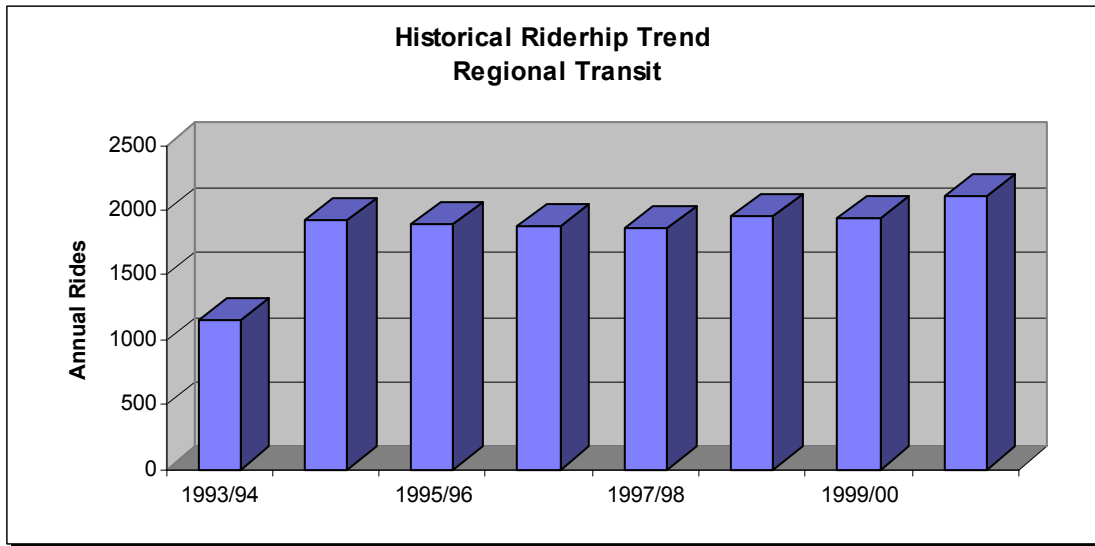


handyDART/paratransit ridership highlights:

- Ridership increases to 12,000 annual rides in 1994/95 peaking at 14,650 in 1997/98 followed by a leveling off to just over 13,500 last year.
- Implementation of taxi supplement service in 1995/96 provides scheduling flexibility and up to 1,500 additional rides annually.
- Productivity consistently exceeds 5.0 rides per hour

Approximately 85% of the handyDART/paratransit service is currently booked for recurring trips. For example, the bus is fully committed from 7:45 am to 8:45 am Monday to Friday transporting persons with developmental disabilities to the Shuswap Association for Community Living workshop on 10th Avenue. There are several other trips for regular customers at other times. On the other hand, there are few unmet trips for the 160 people who are registered for the door-to-door service. Taxis are well used in this regard.

The regional service to Sorrento/Eagle Bay on Thursdays and to Deep Creek/Silver Creek on Wednesdays has been very consistent.



Regional ridership shows:

- Average 1,900 rides per year since 1994/95
- Sorrento trips average just over 25 trips per day and the Silver Creek/Deep Creek just over 10

How Shuswap Transit Compares to other Communities

The following tables summarize 1999/00 Annual Operating Agreement statistics for similar sized communities around the province. A complete program summary is attached as Appendix B.

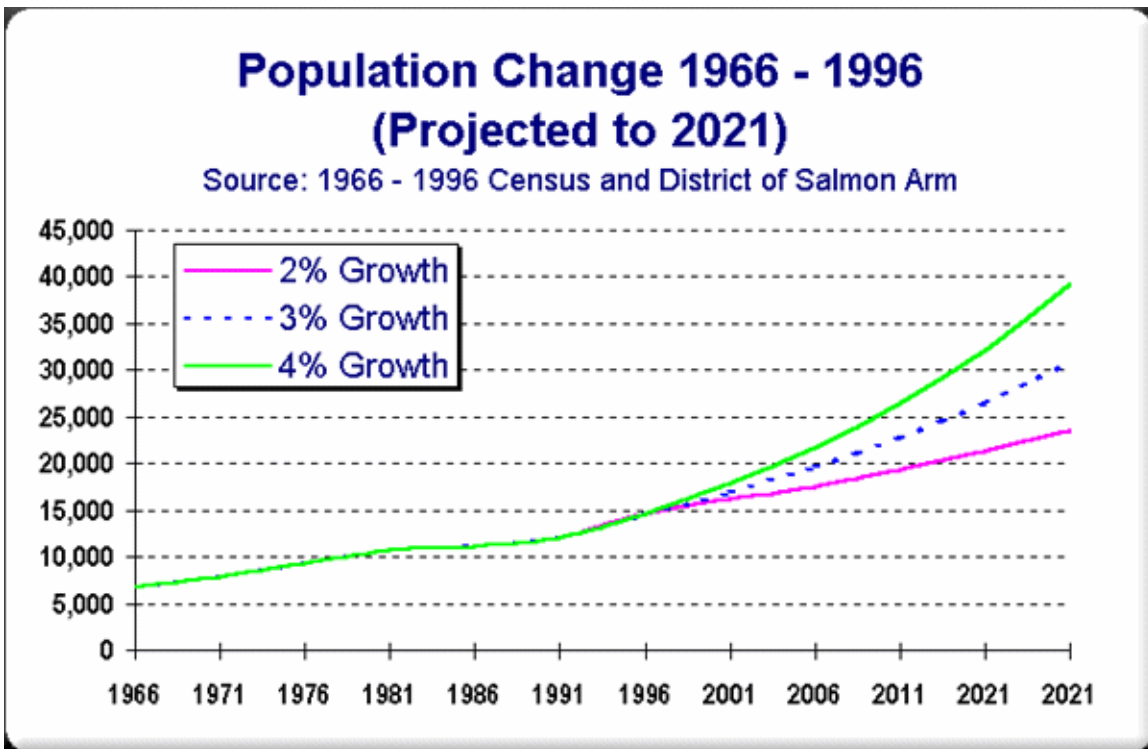
Comparison to Selected Paratransit Systems						
Based on 1999/00 actuals						
Community	Population	# of Vehicles in Service	Annual Revenue Hrs.	Annual Rides	Rides per Hour	Net Municipal Share
Hazeltons	7,300	1	1,562	6,608	4.2	\$17,302
Castlegar	8,400	2	3,651	45,718	12.3	\$89,796
Creston	10,700	2	4,208	23,943	5.7	\$49,913
Shuswap Regional	19,100	3	5,823	57,856	9.9	\$63,380
Williams Lake	11,200	2	5,456	48,433	8.9	\$66,742
100 Mile House	13,500	1	1,992	7,400	3.7	\$24,337
North Okanagan	14,600	2	3,316	26,481	8.0	\$53,065

Based on the 1999/00 statistics Shuswap Transit rates as one of the highest performers with respect to productivity (rides/hour). The system also ranks very well for total local costs and local cost per service hour. Both the conventional and

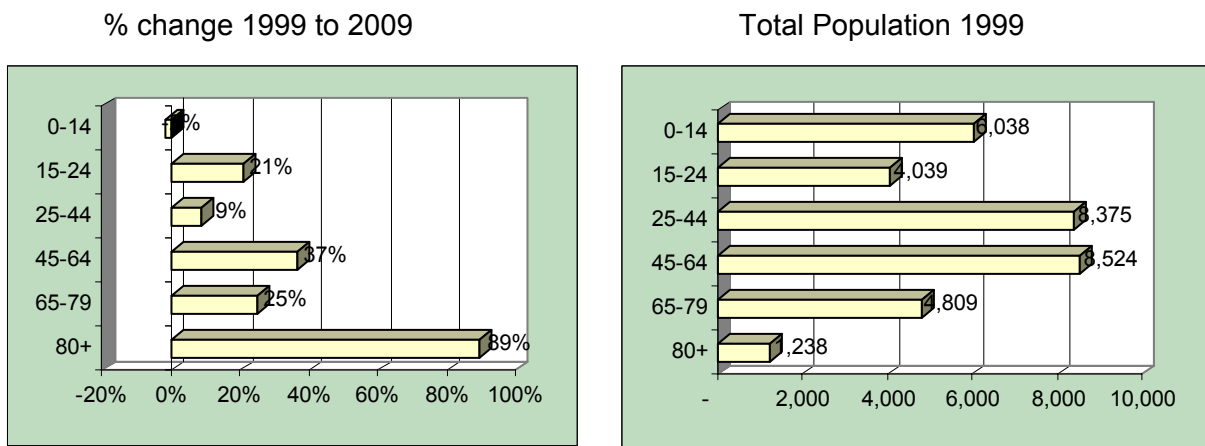
handyDART/paratransit services are among the top performers in the Municipal Systems Program.

Transit Market Analysis

Population -- The 2000 population of Salmon Arm is estimated at 14,776. Locally based projections at 3% growth are for the total population to increase by about 5,000 persons over the next ten years. Much of this growth will be in the transit dependent age groups.¹



¹ Population figures provided by District of Salmon Arm Planning Department



The age structure of the population for the Salmon Arm Health Area is displayed in the above graphs. The graphs indicate that the senior population comprises 19% of the total which is significantly above the BC average of 12%. In particular, the population 80+ is expected to grow by 89% over the next 10 years.

As outlined above, conventional transit carries approximately 160 revenue passengers on weekdays and 117 on Saturdays. When considering that 65% to 75% of passengers are using the bus to and from their activity, then the system actually serves approximately 105 to 120 persons per day. These persons can be put into the following groups.

Seniors and BC Bus Pass Holders -- This group of riders make up the largest market currently using Shuswap Transit. Almost 59% of riders belong to one of these groups. BC Bus Pass holders comprise 37.5% of riders with seniors making up a little over half of this group. Overall, a little over 40% of riders are seniors. Over half of Saturday ridership is by BC Bus Pass holders. There are about 100 BC Bus Pass holders in the community.

Adults -- Adult riders make up 32.2% of transit users. This group can be further divided into sub-groups including:

- commuters to regular jobs or volunteer activities,
- shoppers to Downtown and the Malls and
- trips to medical/dental appointments.

These adult riders are mostly captive transit users, in other words, few own or have regular access to a private vehicle. Transit provides these persons with the ability to go about their daily activities. Without transit most would become totally dependent on friends or family for rides. In some cases, many trips would just not be made.

The 25-44 age group is not expected to increase appreciably over the next 10 years exhibiting only a 9% growth rate.

Commuters/Students -- From the March 2000 count, 9.1% of passengers was made up of school age students, primarily high school. Most if not all of these riders likely attend Okanagan University College. The on-board passenger survey conducted in March 2000 indicated that overall, commuters represent 14% of respondents, a figure obtained by combining all those who indicated either work or college as their main trip purpose.

Youth, ages 15-24 is expected to grow by 21% over the next 10 years.

Industrial Park Employee Survey

In April 2000, 839 surveys were distributed to employees within the Salmon Arm industrial park to examine travel habits and to determine the level of support for transit service. 229 surveys were completed. Multiple analyses identified 36 people who would use transit on a regular basis, work from 8:00 a.m. to 4:30 p.m. and reside within the transit service area. This figure is probably indicative of a larger group that would use transit. A full analysis of the survey is included in Appendix F.

March 2000 On-Board Survey

Held from March 28 to March 29, 2000, this Shuswap Transit System On-Board Passenger Survey was conducted in order to monitor current ridership patterns and obtain passenger feedback. The complete report is attached as Appendix D.

In summary, the survey indicated that:

- The most common trip purpose is shopping (53%)
- The most common trip origin point is the Northeast area (23%)
- Majority of respondents are regular riders (89%); 27% use bus everyday; only 10% ride 2-3 times per month or less.
- Walking is main alternative for 32% with taxi at 18%
- 15% list bus as their only transportation option
- 79% are satisfied or very satisfied with the service; 11% are dissatisfied or very dissatisfied
- 26% want more frequent service

October 2000 Service Audit

This service audit found the overall system performance to be "Good", consistent with the rating given in the last service audit conducted in May 1998. There have been some improvements made such as fare security and driver safety. 89% of trips were recorded as on-time. A summary of the audit is included as Appendix E.

handyDART/paratransit Issues

A number of factors are putting pressure on the door-to-door service including:

- Increase in number of people who cannot use conventional transit due to a disability;
- Closer to home health care philosophy that keeps people out of institutions but requires travel for medical appointments and to meet everyday needs;
- Shuswap Health Services are planning for a 10 - 12 space Adult Day Program Monday to Friday for residents in the community. This program is generally for seniors who are wait listed to enter an Intermediate Care Facility;
- Existing handyDART service can only accommodate the odd trip request during peak hours;
- Cannot accommodate some trips due to limited operating hours;
- Limited opportunity to expand taxi services due to lack of appropriate vehicles and other issues such as driver training. (Backgrounder on Taxi services included as Appendix I.)

These factors combine to provide justification for expansion of the handyDART service.

Other Issues

- The Hillcrest area remains the largest area of Salmon Arm without transit service. The area between Auto Rd. and 20th Ave. from 10th St. to 20th St. does not have access to the transit system. There is currently a few Taxi supplement trips to this area.
- It is difficult for passengers who travel from Canoe to the hospital to return home. For example, a person arriving at the hospital at 10:25 am could catch the East Loop at say 11:15 am, ride downtown and get the 12:00 return to Canoe - one hour and fifteen minutes for the ride home.

2001/02 Transit Service Plan

handyDART/paratransit

With regard to handyDART/paratransit the need is for additional service from 8 am to 10 am and 3 pm to 5 pm. In some circumstances this demand could be accommodated by increasing the taxi supplement service. The lack of appropriate vehicles and other issues such as driver training preempt this option in Salmon Arm.

It is suggested that an additional 4 hours per day (1,000 annual hours) would accommodate the growth in demand. It is estimated that the additional service would provide 3,000 rides at the rate of 3.0 rides per hour. The total cost is estimated at \$31,000 with a local share of \$3,900. This is based on a fare increase to \$2.00 (see section following on fares). No additional vehicles would be required for this service (see fleet plan in section following).

The issue of transportation services for the ADC program is not considered in this expansion and may be revisited when there is a formal request from the North Okanagan Health Region to the funding partners.

Fixed Route

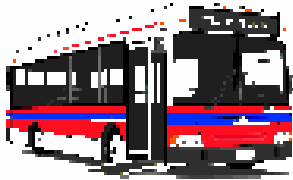
Over the past year increased ridership and particularly increased use of walkers and wheelchairs on the fixed route service has become difficult to accommodate on the existing Polar minibus. The front seat of the bus has been reserved for walker storage. Scheduled recovery time is being used to the maximum and many trips are now running late. Schedule reliability and public confidence in the timetable may deteriorate if this condition persists.

As well, an increase in the population over the last ten years and the desire by the community to provide better service to Okanagan University College, the recreation centre and arena support expansion of the service.

The options to respond to these issues include:

- Acquisition of a larger bus
- Addition of a second vehicle to spread out the demand and attract new riders by providing more frequent service and improved service coverage.

Larger Bus Option - Low Floor Bus



The following is an evaluation of the DART bus. The comparison is usually in relation to New Flyer 40' buses and some of the discussion below reflects this. In the case of Salmon Arm, however, the existing bus is a Polar minibus with much lower operating costs than a full size bus.

Never the less, the DART may be able to solve existing issues and to help meet future growth.

With respect to operating costs, the new Dennis DARTS have only been in full operation for about six months and have not been fully evaluated for its operating costs. When these vehicles were first investigated, advantages over other products included longer regular service intervals, cost savings when replacing major components (engines and transmissions) and better fuel efficiency.

First introduced to several Municipal Systems Program Transit Systems in 1999, Dennis Dart vehicles offer similar accessibility features and vehicle longevity to the New Flyers, but provide better fuel efficiency and have shorter 30-foot and 35-foot vehicle lengths. 30-foot and 35-foot models are essentially identical in terms of both look and operating costs, except that the 30-foot model does not have a rear passenger door. Seating capacity is 29 and 34 passengers respectively.

Benefits of the Dennis Dart buses re. The New Flyer include:

- Lighter vehicle weight and state of the art technology result in 10% lower day-to-day maintenance costs and 22% better fuel efficiency.
- Two-year full warranty means that no major repairs are associated with the vehicles for the first two years. Longer warranty periods are also attached to some vehicle systems, such as air conditioning.
- Smaller buses are seen to be more neighbourhood-friendly in areas where the full capacity of a 40 foot vehicle may not be required.

Benefits of the Dennis Dart buses re. Polar Minibus include:

- Increased Capacity - The Polar can accommodate 21 passengers seated, 2 persons in wheelchairs and 8- 10 standees. While capacity on the existing minibus is only occasionally an issue, the high number of walkers and wheelchair use is a consideration. The bus averages from 5 to 20 walkers per day and does not have adequate room for safe storage. The driver spends considerable time and effort to store walkers on the bus. In fact the front passenger seating

area has been reserved for walker storage. The DART would alleviate this issue and improve running times.

- Accessibility - The low floor design with ramp access removes the greatest impediment to transit use for seniors and the semi ambulatory. Transit usage in Salmon Arm would increase with the DART bus resulting in higher revenue and cost recovery. It is estimated that the DART service would result in an additional 6,000 rides annually in Salmon Arm.
- DART bus would help in marketing the service and attracting new passengers, in particular, students.

Some of the costs associated with operating a DART in Salmon Arm are:

- Increased wage costs;
- Increased fuel and maintenance costs and;
- Increased debt service costs.

The increased cost is estimated at \$25,000 to \$35,000 annually, depending on the impact, if any, that the larger vehicle has on driver wages. The cost for a 1982 Orion Bus is also included in the Table as one could be made available by January 2001. This would be a short-term (1-2 years) solution to the capacity issue.

Cost	Existing Polar	Dennis Dart	1982 Orion
Fuel & Tires	\$17,500	\$20,800	\$22,000
Running Repairs	\$7,000	10,000	\$12,000
Major Repairs*	\$3,000	\$0	\$10,000
Variable Hourly Costs	\$76,000	\$86,000	\$86,000
Vehicle Lease Fees	\$16,500	\$39,600	\$0
Total Specified Costs	\$120,000	\$156,400	\$130,000

Additional information on the Dennis Dart is included in Appendix H.

Fixed Route Expansion



This option adds additional trips throughout the day Monday to Friday for an additional 2,500 annual hours. The second bus would provide for 30-minute service on the West Loop and hourly service on the East Loop (split into two routes) and to Canoe. This plan essentially doubles the available service and makes it more attractive for commuters and students. There is also the potential to expand service coverage to the Hillcrest and Foothills areas of the city and make adjustments to existing routes. The attached map provides a conceptual illustration of the plan.

It is estimated that this option would operate at a productivity level of 6.0 to 7.0 rides per hour initially and accommodate from 15,000 to 17,500 additional rides. It is forecast that rides would continue to increase over the next three to four years to the 12.0 rides per hour level being achieved by the existing service. The total cost is estimated at \$115,000 with a local share of \$44,000.

This option:

- Splits the West Loop into two routes to improve coverage and reduce travel time;
- Reverses the direction of the East Loop to provide more direct access to the malls and eliminate the extra mall trip;
- Provides coverage to Hillcrest area and along Foothills Road to 12th Street
- Meets all key class start times at OUC;
- Meets many scheduled activities at the Shuswap Multiplex;
- Meets 8:00 am work start and 4:30 pm finish at Industrial Park;
- Provides an alternative for commuters

Phase 2 of the expansion could include additional Saturday service, Sunday service and/or limited evening service. The demand for service at these times would need to be evaluated at a later date. The following table provides an information and performance summary.

Information & Performance Summary			
Shuswap Regional Transit			
	AOA Budget 2000/2001	handyDART Expansion 2001/2002	Fixed-Route Expansion 2001/2002
ANNUAL OPERATING AGREEMENT			
BUDGET SUMMARY			
Total Costs	\$302,724	\$31,000	\$115,000
Total Revenue	\$69,826	\$6,000	\$18,750
BCT Share of Costs	\$156,430	\$20,600	\$53,500
Net Municipal Share	\$71,309	\$3,900	\$41,000
PERFORMANCE SUMMARY			
Level of Service			
Population Served	18,900*	16,285	16,285
Registered Users	225	225	0
Number of Buses in Service	3	1	1
Revenue Hours of Service	5,847.93	1,000.00	2,500.00
Effectiveness			
Annual Revenue Passengers	56,500	3,000	15,000
Conventional	43,200	0	15,000
Custom/Para - Vans	12,100	3,000	0
Custom/Para - Taxi Supplement	1,200	0	0
Van Passengers per Revenue Hour	9.5	3.0	6.0
Total Cost per Passenger	\$5.36	\$10.33	\$7.67
Cost Recovery	23.1%	19.4%	16.3%
Efficiency			
Total Operating Cost of Van Service per Revenue Hour	\$46.65	\$31.00	\$38.80
Total Cost of Van Service per Revenue Hour	\$49.71	\$31.00	\$46.00
* Includes Regional Population			

Vehicles



The fleet currently consists of 3 vehicles including 2 Polar minibuses and 1 van. One of the minibuses is dedicated to the fixed route service and the other is shared between handyDART and the Thursday Regional service to Sorrento and Eagle Bay. It is also the spare for the fixed route service. The van is used for handyDART on Thursday and the Wednesday Regional service to the Salmon Valley. The van is not suitable for the fixed route service or the higher demand handyDART/paratransit routes.

The expansion adds one Polar minibus to bring the fleet to 3 minibuses and 1 van. The van is scheduled for replacement with another Polar and could remain as a spare and continue to be used for some trips. The fleet would then consist of 4 minibuses and 1 van.

Bike Racks on Buses



Bike racks on transit buses has become a common sight around the province. Bicycles are slowly regaining momentum as a legitimate transportation mode and many communities, over the past decade, have included provisions for cycling in their transportation and official community plans. BC Transit Municipal Systems Program has encouraged many BC communities to install bike racks on their transit systems.

Unfortunately, Motor Vehicles has determined that bike racks cannot be mounted on vans and minibuses due to interference with lights and turning signals. Therefore, installation of bike racks on Shuswap Transit buses is not possible in spite of the keen interest that has been expressed and donations that have been made.

Fare Structure Changes

Current conventional adult fare is \$1.25, \$1.00 for seniors and students. These fares, established when the service started, are slightly lower than the provincial average (\$1.35). Current handyDART fare is \$1.50, among the lowest in the province and unchanged since 1991. The average provincial handyDART fare is

\$1.69. A 25¢ increase in the conventional fare and 50¢ in the custom fare would add approximately \$10,000 to \$12,000 annually in revenue.

Convenience tickets and monthly pass use is very low. The pricing of these tariff options can be reviewed at a later date or as the demand for these products increases. A summary of current fare structures in the Municipal Systems is listed in Appendix G.

3.0 Recommendation

It is recommended that the District of Salmon Arm approve the Transit Service Plans for the handyDART and fixed route services for implementation in September 2001.

**Shuswap Transit System -- 2001/02 Service Plan
List of Appendix**

- A. Local Transit Objective**
- B. Ridership and Performance Summary -**
- C. Two Week Passenger Count - March 2000**
- D. On-Board Passenger Survey Results - March 2000**
- E. Service Audit - October 2000**
- F. Industrial Park Employee Survey**
- G. Current Fare Structures**
- H. Dennis Darts - Backgrounder**
- I. Taxi Backgrounder**
- J. Travel Options**

APPENDIX A

LOCAL TRANSIT OBJECTIVES

District of Salmon Arm Council has established the following local transit objectives. The objectives serve to define the expected role of transit in the region in terms of service levels and form the basic requirements that the transit system must fulfill in order to be acceptable to the District.

1. To develop a local transit system which emphasizes the needs of seniors, youths and persons with disabilities.
2. To focus service on the built-up areas of the District including Downtown and Canoe
3. To provide an integrated service, accessible to seniors, persons with disabilities, and others in the community.
4. To accommodate the demand for non-discretionary trips (work, medical, education) and discretionary trips (social, shopping, recreation, etc.).
5. To provide access to all major activity centres including the Hospital, Centenoka and Piccadilly Place Malls, Downtown, OUC and high schools, Health Care facilities, Recreation Centres and Retirement Centres.
6. .To address both the present and future travel needs of the District of Salmon Arm area.
7. To suggest transportation demand management strategies for major employers in the Salmon Arm area.
8. To set service concepts and costs which are in line with the size of the population and area served, as based upon experience in similar communities throughout BC.

Appendix D

Shuswap Transit System Summary of On-Board Passenger Survey Results Based on a survey conducted March, 2000

Survey Background

Held from March 28 to March 29, 2000, this Shuswap Transit System On-Board Passenger Survey was conducted in order to monitor current ridership patterns and obtain passenger feedback. This information will greatly assist in the future planning of transit services in the Shuswap area.

Beginning at noon on March 28 and continuing for a 24-hour period, Shuswap Transit System drivers handed out twelve-question survey cards to all boarding passengers. Passengers were asked to fill out a card every time they boarded a bus, even if they had already filled one out earlier that day or on the previous day, in order to gather information from as many trips as possible during the survey period. In total, Shuswap Transit passengers completed and returned 111 surveys.

In addition to the passenger survey, this survey uses information gained from the most recent two-week passenger count of the transit system in March 2000 which outlines transit use by route, time, day and passenger category to determine response rates and the representativeness of survey results.

The following report is intended to provide the reader with a brief overview of the survey findings. Further interpretations and conclusions will be included in future transit planning documents.

Response Rate

- Statistics from Shuswap's March 2000 two-week passenger count show that the conventional portion of the transit system averages approximately 159 passengers each weekday. Therefore, the 111 returned surveys represent a return rate of about 70%. This relatively high response rate indicates survey results may provide a reasonably accurate representation of actual ridership.

Boarding Time

- According to the survey, the most common boarding times for riders of Shuswap's Transit System are 10 – 11am (20.6%), and 12 – 1pm (17.6%). The lowest passenger survey completions were received between 7am and 9am, 11am – noon and after 4pm.
- Survey completions from periods throughout the day generally reflect ridership proportions determined through the two-week count conducted in March 2000.

Table 1 illustrates the comparison in proportions of the two-week ridership count and passenger survey boarding times.

Table 1
Comparison of Two-Week Count and
Passenger Survey Ridership Proportions by Weekday Time Period

	Two-Week Count Ridership	Passenger Survey Boardings
AM Peak	11.8%	11.8%
Midday	67.5%	69.6%
PM Peak	20.7%	18.6%

- Due to the close correlation of survey returns from various times of the day when compared to the two-week ridership count proportions, it can be assumed that the survey results generally reflect opinions of bus riders in the Shuswap community.

Trip Purpose

- The most common purpose for taking the bus in the Shuswap region was *shopping*, with 53% (n=57) of passengers indicating it was their trip purpose. 10% (n=11) passengers cited *work* as their trip purpose, the next most common response.
- Eight respondents (7%) indicated *social/recreational* as their trip purpose, while seven cited *medical/dental* (6.5%).
- Overall, *commuters* represent 14% of respondents, a figure obtained by combining all those who indicated either work or college as their main trip purpose.

TRIP ORIGINS AND DESTINATIONS

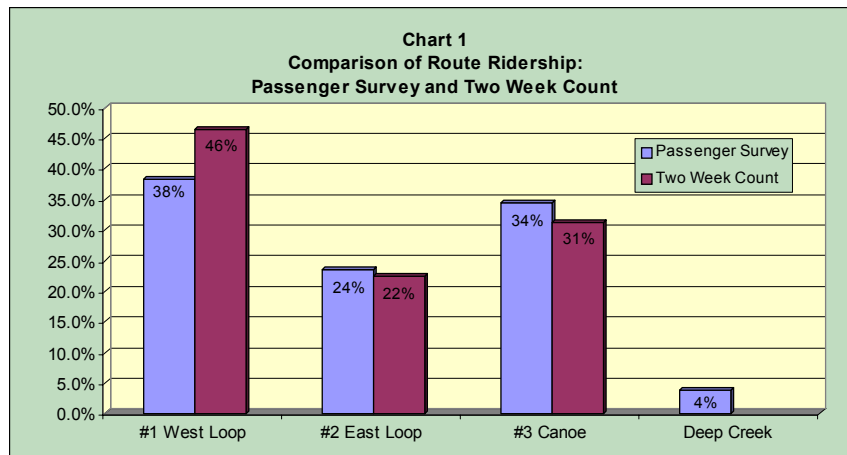
- The most common trip starting point was the Northeast area (n=19; 23%) encompassing locations north of Okanagan Avenue. Downtown Salmon Arm was the second most common origin (n=17; 20%).
- Of those riders who began their trips in the Northeast, the top destinations were to the Southwest (37%), including locations west of Shuswap St, and within the Northeast area (32%).
- For riders starting their trips in the Downtown area, the most common destinations were Canoe (41%) and the Southwest (29%).

TRIP DESTINATIONS

- Overall, the most common destinations cited in the passenger survey were the Southwest (29%) and the Northeast (17%).

Bus Routes and Transfers

- Similar to the two-week count conducted in March 2000, the #1 West Loop and the #3 Canoe route were most common for Shuswap bus riders. Chart 1 below illustrates the general similarities between proportions of survey respondents on their initial route and proportions of bus ridership based on the most recent two-week count. The difference (8%) between the survey and the two-week count on the #1 West Loop may be a result of including the Regional Service to Deep Creek, which was not counted in the two-week count. The general similarity in route ridership between the passenger survey and the two-week count again suggests that the



survey represents actual ridership.

- In general, a majority (92.1%) of all rides did not require the use of a transfer, indicating the effectiveness of existing routes.
- Of those rides that did require a transfer, all occurred at Downtown Salmon Arm (although this was only five passengers).

Bus Use

- The vast majority of respondents are regular riders (i.e., those who use transit at least two days per week). This group comprised almost nine in ten respondents (89% total), as 27% said they use the bus every day, 54% said they ride the bus two to three times per week, and 7.5% said they take transit every weekday. Only 10% of respondents said they ride the bus less than weekly (2-3 times a month or less).

Other Transportation Options

- When asked what other transportation options were available to them, 32% of survey respondents said that walking was their main alternative.
- Taxi use in the area was relatively high (18%), the second most common response.
- Private automobiles were an option to 28% of respondents, with 16% as passengers- only, and 11% as drivers. This latter number shows that 11% of respondents can be classified as “choice transit users”, those who have access to a vehicle as a driver but who instead choose to take transit.
- 15% of respondents listed bus as their only transportation option.

OVERALL SATISFACTION WITH PRESENT BUS SERVICE

- Overall, the majority of respondents were either satisfied (27%) or very satisfied (52%) with present bus service (totaling 79%). 11% of respondents indicated they were either dissatisfied or very dissatisfied with the service.

PASSENGER SUGGESTIONS FOR IMPROVEMENT

- When asked to comment on their transit system and suggest improvements, more than one-quarter of respondents requested more frequent service (26%) and several respondents requested more late service, including afternoons (21%).
- Other significant suggestions were for Sunday and/or Holiday service (14%), and larger buses (13%).

APPENDIX E



Municipal Systems Program Transit System Service Audit Report

Shuswap Regional Transit System October 2000

One of BC Transit's responsibilities under the terms of the Annual Operating Agreement (Section 3) is to conduct periodic service audits to make recommendations for improvements which will lead to a safer, more reliable and efficient transit service.

On October 5, 2000, BC Transit staff observed the Shuswap Regional Transit System without prior notification of K.I.A. Transit Ltd., the operating company.

This service audit found the overall system performance to be "Good", consistent with the rating given in the last service audit conducted in May 1998. There have been some improvements made such as fare security and driver safety.

Recommendations and Comments

The following measures could be undertaken in order to increase transit system performance:

The system received a rating of "Good" in the schedule reliability section. While for the most part buses were on time (89% of trips observed), 7% of bus trips were found to be earlier than scheduled. Buses should not leave the main terminus early.

There is provision for after hours callers on the transit information line, but adding fares and service hours may be helpful to passengers.

Observations on Bus Stop Signs and Public Information

Observations made during the service audit of the Shuswap Regional Transit System have resulted in the following recommendations for the District of Salmon Arm:

The stop at the Regional Hospital, though having a sign and shelter, would better serve waiting passengers by including a transit schedule, system map and a bench.

Bus stops at Piccadilly Place Mall and the main terminus downtown both had all the necessary amenities.

The stop between the Community Centre and the Arena would be better served with the addition of a transit schedule and system map. Note that this stop is not very convenient for those with disabilities, however the driver has the flexibility to pick up and drop off passengers directly in front of the pool if requested.

The stop at Centenoka Mall would better serve the travelling public with the addition of a system map and schedule.

Appendix F

Salmon Arm Industrial Park Employee Survey

SUMMARY REPORT

SURVEY BACKGROUND

Currently, the Shuswap Transit System does not extend to the industrial park in the southeast area of Salmon Arm. In November of 1999, CAE Newnes, the largest organization in the industrial park with close to 600 employees, conducted a brief e-mail survey of employees to determine general interest in expanding the current transit system to include the industrial park. As very few responses were received, the results can only be viewed with limited confidence. The District of Salmon Arm, however, forwarded the request for additional service to BC Transit in order to administer a more thorough survey of employees in the area. The main goal of the survey was to determine whether an expansion of the Shuswap Transit System is warranted by determining respondent work schedules, travel habits, interest in using public transit, and residential areas.

RESEARCH METHODOLOGY

A list of organizations located within the industrial park was provided to BC Transit and preliminary contact was made to determine both the number of employees per organization and the possibility of having the surveys distributed to them internally. Following this exercise, an adequate number of surveys were couriered to each participating organization for distribution (three companies declined participation). A census of employees at participating organizations received a survey accompanied by a business reply envelope so that they may return their survey in confidence at no charge.

RESPONSE RATES

Of the 839 surveys distributed to employees within the Salmon Arm industrial park, 229 were completed and returned giving an overall valid response rate of 27%. This response rate is typical of surveys distributed in this manner (with a free-of-charge return option). One limitation of this research is that three companies declined to participate and one organization's surveys were returned undeliverable, eliminating complete representativeness of survey results to all employees in the industrial park. The following table represents survey distribution, survey returns and response rates by organization:

**Table 1
Response Rates by Organization**

Organization	Surveys Distributed	Surveys Returned	Response Rate
Name Omitted on Survey	0	6	--
CAE Newnes	600	148	24.6%
Dinoflex Manufacturing	32	18	56.3%
School District	40	5	12.5%
Top Rollshutters Inc.	14	10	71.4%
Huber's Heritage Furniture	24	5	20.8%
Gemm Diesel Ltd.	23	7	30.4%
Custom Glass	35	3	8.6%
Bell Pole Company	22	14	63.6%
BC Hydro	22	8	36.4%
Hunterline Trucking	27	5	18.5%
TOTAL	839	229	27.3%

WORK SCHEDULES

A number of questions were asked of employees to ascertain work patterns for employees within the industrial park:

- Most employees (93%) always work the same days of the week, with Monday to Friday being most common.
- A slight majority (58.5%) of all employees start work at 8:00am, and slightly less than half (45.4%) of all employees finish work at 4:30pm.
- Responses as to whether employees are needed to work overtime varied. Nearly 8 in 10 employees mentioned that they have to work overtime at least sometimes. About 2 out of 10 employees never work overtime.

TRAVEL HABITS AND SUPPORT FOR TRANSIT

To determine current and potential travel habits (should transit service be introduced to the industrial park), employees were asked some transportation-related questions:

- When asked how they get to and from work, more than 8 in 10 employees (83.4%) drive alone to work, while 14% carpool and 1.7% ride their bicycle.
- 7 out of 10 employees indicated that it takes them 15 minutes or less to get to and from work. The average response was about 16 minutes. Over half of employees (63.3%) in the industrial park live within the Salmon Arm Transit System service area.
- Nearly half (45.0%) of employees said they would never take the bus if it were extended to the industrial park. Almost an equal proportion (41.9%) of employees indicated that they would take the bus every work day or 1 – 2 times per week.
- In terms of major obstacles to using the potential bus service (n=70), the most common responses were irregular work schedules (15.7%, n=11), getting to work on time (11.4%, n=8), responsibilities with children (10.0%, n=7), and the bus taking too long/don't like waiting (10.0%, n=7).

- Employees were asked for a reasonable rate to pay for a one-way bus fare and a monthly bus pass. The most common responses were \$1.00 (45.1%) for a one-way bus fare (mean=\$1.33) and between \$20 and \$30 (59.1%) for a monthly bus pass (mean=\$28.28).

FEASIBILITY OF TRANSIT SERVICE EXPANSION

Though there is a sense of employee work schedules, travel habits and support for transit from analyzing the frequency of certain responses, more detailed cross-tabulation analyses were undertaken to determine the feasibility of transit service expansion to the industrial park.

- The first analysis was undertaken to determine some aspects about the transit market in the industrial park, i.e., those who would use transit either every work day or 1 – 2 times per week. A filter was applied to the data to determine the most common work start and finish times of this group. The most common response was a start time of 8:00am (56.6%) and a finish time of 4:30pm (44.8%). Of those who start work at 8:00am, three-quarters finish at 4:30pm.
- The second analysis was conducted to determine the number of employees that reside within the Salmon Arm Transit System service area who start work at 8:00am, finish work at 4:30pm and would use transit every work day or 1 – 2 times per week. Most employees in this group live in Salmon Arm (80.5%, n=33), a few live in Canoe which is also in the service area (7.3%, n=3) and the remaining 12.2% were from Enderby and Tappen/Sunnybrae, i.e., outside of the service area.
- The third analysis focussed on the 36 people that fulfill the following criteria:
 - start work at 8:00am
 - finish work at 4:30pm
 - would use transit every work day or 1 – 2 times per week
 - reside within the Salmon Arm Transit System service area

In reviewing response frequencies of this group, the following information was established:

- ✓ A majority (83.3%, n=30) are employed by CAE Newnes. The employers of the remaining 6 people are Dinoflex Manufacturing, Gemm Diesel Ltd., Bell Pole Company, and Hunterline Trucking.
- ✓ About 6 in 10 employees never or rarely have to work overtime while 4 in 10 work overtime 1 – 2 times per week or when required.
- ✓ More than 30 fewer cars would be driving to the industrial park if bus service were introduced, as 30 employees (83.3%) drive alone and 4 employees (11.1%) carpool. The remaining 2 people (5.6%) ride their bicycle to and from work.
- ✓ All employees indicated that it currently takes 15 minutes or less to get to or from work, with an average time falling just under 10 minutes.
- ✓ When asked about a reasonable rate to pay for a one-way fare or a monthly pass, the average of responses was \$1.04 (range=\$0.50 to \$2.00) for a one-way fare and \$26.30 (range=\$15.00 to \$50.00) for a monthly pass.

One important thing to note is that this group of 36 people may represent only a portion of people who fit the aforementioned criteria. As the response rate is about 27%, the number of people in the industrial park actually fulfilling the criteria may be higher.

Appendix J - Travel Options

Travel Options is a BC Transit program that encourages and assists local employers to develop and implement a trip reduction strategy for their organization. Travel Options organizes workshops to help employers and employees in each community discover how they can enjoy the direct personal and organizational benefits of trip reduction planning while contributing to improved air quality. The workshops are with public, private and not-for-profit employers and participating employees are encouraged to become "Travel Options Coordinators" for their workplace. Coordinators may help with activities at their workplace such as initiating a shared-ride car pool board or increasing bicycle lockup facilities. Most importantly in terms of this study, they are also indispensable if trying to organize well-tailored transit to a work site.

These options may be suitable for CAE Newnes and other employers in the Industrial Park.

More information on the Travel Options Program and its workshops can be found at <http://www.bctransit.com/traveloptions/introduction/introduction.htm>