

THE CITY OF EDMONTON
SANITARY SERVICING STRATEGY FUND



2002 ANNUAL REPORT

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Prepared by:
City of Edmonton
Asset Management and Public Works
Drainage Services

Sanitary Servicing Strategy Fund
Annual Report

MESSAGE FROM THE MANAGEMENT COMMITTEE

This is the fourth annual report of the Sanitary Servicing Strategy Fund (SSSF). Activities in 2002 included revenue collection, the completion of the pump station for the South Edmonton Sanitary Sewer (SESS) Stage SW1, and the completion of the North Edmonton Sanitary Sewer (NEST) Stage NC1 project. The two committees of the SSSF, the SSSF Management Committee and the SSSF Operational Committee, met throughout the year to review construction progress, review the financial status of the fund, and to review and approve the initiation of conceptual plans for future construction.

At the end of 2002, the Sanitary Sewer Strategy Fund had a closing balance of \$17.8 million. Revenues totaled \$13.4 million, while expenditures were \$6.1 million. Due to the extremely strong local housing market and economy in 2002, revenues came in ahead of projections by approximately \$4.1 million. Expenditures came in slightly above projections by approximately \$0.43 million, mainly due to carry over of expenditures from 2001. Based on the revenues collected and the year-end balance, the SSSF is in a solid financial position to meet the sanitary needs of future development.

Our focus in 2003 will be on completing the West Edmonton Sanitary Sewer (WESS) Stages W2-W12 and SESS Stages SW2-SW7 concept plans and review of the fund's financial status and rates.

Yours truly,

A handwritten signature in black ink, appearing to read "John Hodgson". The signature is written in a cursive, somewhat stylized font.

John Hodgson, Ph.D., P. Eng.
Chairman, Management Committee

Sanitary Servicing Strategy Fund
Annual Report

TABLE OF CONTENTS

	<u>Page</u>
Message from the Management Committee.....	i
Table of Contents.....	ii
1.0 CONSTRUCTION & PLANNING ACTIVITY IN 2002.....	1
2.0 MANAGEMENT AND OPERATIONAL COMMITTEES	2
3.0 FIVE YEAR CONSTRUCTION PLAN.....	4
4.0 FUND BALANCE	
.1 Twenty Year Projection.....	6
.2 Five Year Projection.....	7
.3 Statement of Equity.....	9

1.0 CONSTRUCTION & PLANNING ACTIVITY IN 2002

South Edmonton Sanitary Sewer (SESS), Southwest Stage 1 (SW1)

Pump station for SW1 was completed in September.

SW1 is part of the SESS system, which services developments within South Edmonton. SW1 provides wet weather storage for an estimated 10 years of development within East Heritage Valley and the Ellerslie area. This 2.4km long, 2340mm diameter tunnel stretches from 111th Street along Ellerslie Road to approximately 97th Street. Tunnel construction was completed in July 2001 and sewage flow began in April 2002. The related 40m deep pump station, which pumps sewage to the South East Regional Trunk Sewer (SERTS), was completed in September 2002.

North Edmonton Sanitary Sewer (NEST), Castle Downs Stage 1 (NC1)

NC1 tunneling & pump station were completed in February & May respectively.

NC1 is part of the NEST system, which services developments in North and Northeast Edmonton. NC1 is a 1.54km long, 2940mm diameter sewer which extends from 127th Street along 153rd Avenue to just west of 113th Street. A pump station at the northwest corner of 153rd Avenue and Castle Downs Road (113A Street) pumps sewage from NC1 to a sewer connecting to the Beaumaris Trunk. Tunnel construction and the pump station were completed in February 2002 and May 2002 respectively.

West Edmonton Sanitary Sewer (WESS), Stage W1 Concept Plan

W1 concept plan completed in April.

The W1 concept plan was initiated in 2001, as construction was anticipated at that time to begin in 2003. The concept plan was completed in April 2002 and will be the basis for detailed design of W1. W1 will consist of a storage tank, pumpstation and forcemain. The storage tank and pumpstation will be located west of the existing Anthony Henday Drive. The forcemain will cross the Transportation Utility Corridor and proceed eastward to 163rd Street, tying into the existing 1900 mm diameter major trunk sewer. This project will service lands in the North Lewis Farms and Winterburn Industrial areas.



Figure 1
SESS – SW1 Pump Station



Figure 1A
NEST – NC1 Pump Station

2.0 MANAGEMENT AND OPERATIONAL COMMITTEES

The role of the **SSSF Management Committee** is to make decisions regarding revenues and expenditures that best meet the long-range plan of all the stakeholders. The Committee is composed of five members (three from the City and two from the Urban Development Institute):

Chair: Director of Drainage Planning – John Hodgson
Members: Director of Drainage Design and Construction – K.C. Er
Director of Development Coordination – Wayne Cameron
Chair of UDI Drainage Committee – Bob Gomes
Member of UDI Executive Committee – Peter Cavanagh

The Cost Assessment Engineer (Clement Yong) provides support for this committee. The Management Committee met 3 times in 2002, twice in a joint meeting with the SSSF Operational Committee. Below are the major accomplishments for the year:

Major accomplishments by the Management Committee in 2002 were:

- *Approved commencement of WESS Stages W2-W12 Concept Plan.*
- *Approved commencement of SESS Stages SW2-SW7 Concept Plan.*
- *Approved rate increase of 2%.*
- Approved commencement of the West Edmonton Sanitary Sewer (WESS) Stages W2-W12 concept plan.
- Approved commencement of the South Edmonton Sanitary Sewer (SESS) Stages SW2-SW7 concept plan and SSSF financial model update.
- Approved revisions to the SSSF 20 year financial model as recommended by the Operational Committee.
- Approved a rate increase of 2.0% to take effect on January 1, 2003.

Sanitary Servicing Strategy Fund
Annual Report

The Operational Committee examines technical issues to support project implementation

The **SSSF Operational Committee** provides recommendations to the Management Committee regarding the timing and capacity requirements for new trunk construction, and flags relevant issues for Management Committee consideration. The Committee is composed of 7 members (five from the City and two from UDI):

Chair: Senior Engineer, Strategic Planning – Paul Hoffart
Members: Program Manager, Design and Construction – Siri Fernando
Planning and Development Representative – Orest Gowda
Drainage Financial Services – Lyle Windsor
Member of UDI Committee – Ken Sadownyk
Member of UDI Committee – Blaine Usenik
Cost Assessment Engineer – Clement Yong

The Operational Committee met two times in 2002 and both meetings were held jointly with the Management Committee. Major accomplishments for the year included:

Major accomplishments included recommending commencement of the WESS Stages W2-W12 and SESS Stages SW2-SW7 concept plans.

- Recommending the commencement of the West Edmonton Sanitary Sewer (WESS) Stages W2-W12 concept plan.
- Recommending the commencement of the South Edmonton Sanitary Sewer (SESS) Stages SW2-SW7 concept plan.
- Recommending revising the construction schedules of WESS Stages W1, W3, W4 & W5 in the SSSF 20 year financial model.

3.0 FIVE YEAR CONSTRUCTION PLAN

Shown below are the proposed concept plans, sanitary system upgrades and major sanitary trunk construction projects for the next five years, as determined by The City of Edmonton Drainage Services. This proposed schedule is based on the projected populations used in the 2002 Transportation Master Plan. The schedule was developed to support development throughout the City of Edmonton in a cost effective manner. The locations of the construction projects are shown in Figure 2.

2003 – West Edmonton Sanitary Sewer (WESS) Concept Plan – South Edmonton Sanitary Sewer (SESS) Concept Plan

WESS & SESS concept plans will place the SSSF in a position to effectively meet development needs.

The WESS concept plan is projected to be completed in the spring of 2003, and it will provide the basis for design of WESS Stages W2 to W12. With the concept plan completed, the SSSF will be in a position to proceed with the preliminary and detailed design of the next stages of WESS, if development conditions and the outcome of the concept plan indicate the need to do so. See 2004/2005 below for a description of Stages W3 to W5.

The SESS (Stages SW2-SW7) concept plan was initiated due to the strong growth in south Edmonton. The concept plan will place the SSSF in a position to respond effectively to the sanitary sewage needs in south Edmonton as dictated by development.

2004/2005 – West Edmonton Sanitary Sewer (WESS)

Completion of WESS Stages W3-W5 will enable continued development in the WESS basin.

Stages W3-W5 are projected to be the first stages of upgrading for the existing inner City system in the WESS basin. This upgrading is required to relieve the over-utilized combined system that currently services the WESS basin. Stages W3-W5 are projected to be 2340mm in diameter running from 100th Avenue & 142nd Street to 106th Avenue & 124th Street roughly along Stony Plain Road. The scheduled year of construction is an estimate based on current flows and projected development. This schedule will be adjusted once the WESS W2-W12 concept plan is finalized. Total construction cost is estimated to be \$18.0 million.

Sanitary Servicing Strategy Fund
Annual Report

WESS (Stage W1), when completed, will open up lands for development in North Lewis Estates and the Winterburn Industrial area.

2006/2007 – West Edmonton Sanitary Sewer (WESS) – Stage W1

This stage of WESS will consist of a storage tank, pumpstation and forcemain. The storage tank and pumpstation will be located west of the existing Anthony Henday Drive. The forcemain will cross the Transportation Utility Corridor and proceed eastward to 163rd Street, tying into the existing 1900 mm diameter major trunk sewer. This project will service lands in the North Lewis Farms and Winterburn Industrial areas. The estimated total construction cost is \$8.0 million.

4.0 FUND BALANCE

4.1 TWENTY YEAR PROJECTION

The SSSF 20 year cash flow projection, which is updated on an annual basis, provides a long term estimate of revenues and SSSF project construction costs. Figure 3 shows the updated projection for 2002.

The following revisions were made to the financial model in 2002:

a) Construction schedules for West Edmonton Sanitary Sewer (WESS):

<u>Stage</u>	<u>Original Construction Year</u>	<u>Revised Construction Year</u>
W1	2003/2004	2006/2007
W3	2005	2004/2005
W4	2020	2004/2005
W5	2014	2004/2005

b) Population projections were based on the 2002 Transportation Master Plan.

c) The 15% rate increases in each of the years 2005, 2010, 2015, and 2020 were temporarily eliminated.

d) Annual interest rate changed from 4.75% to 2.5%

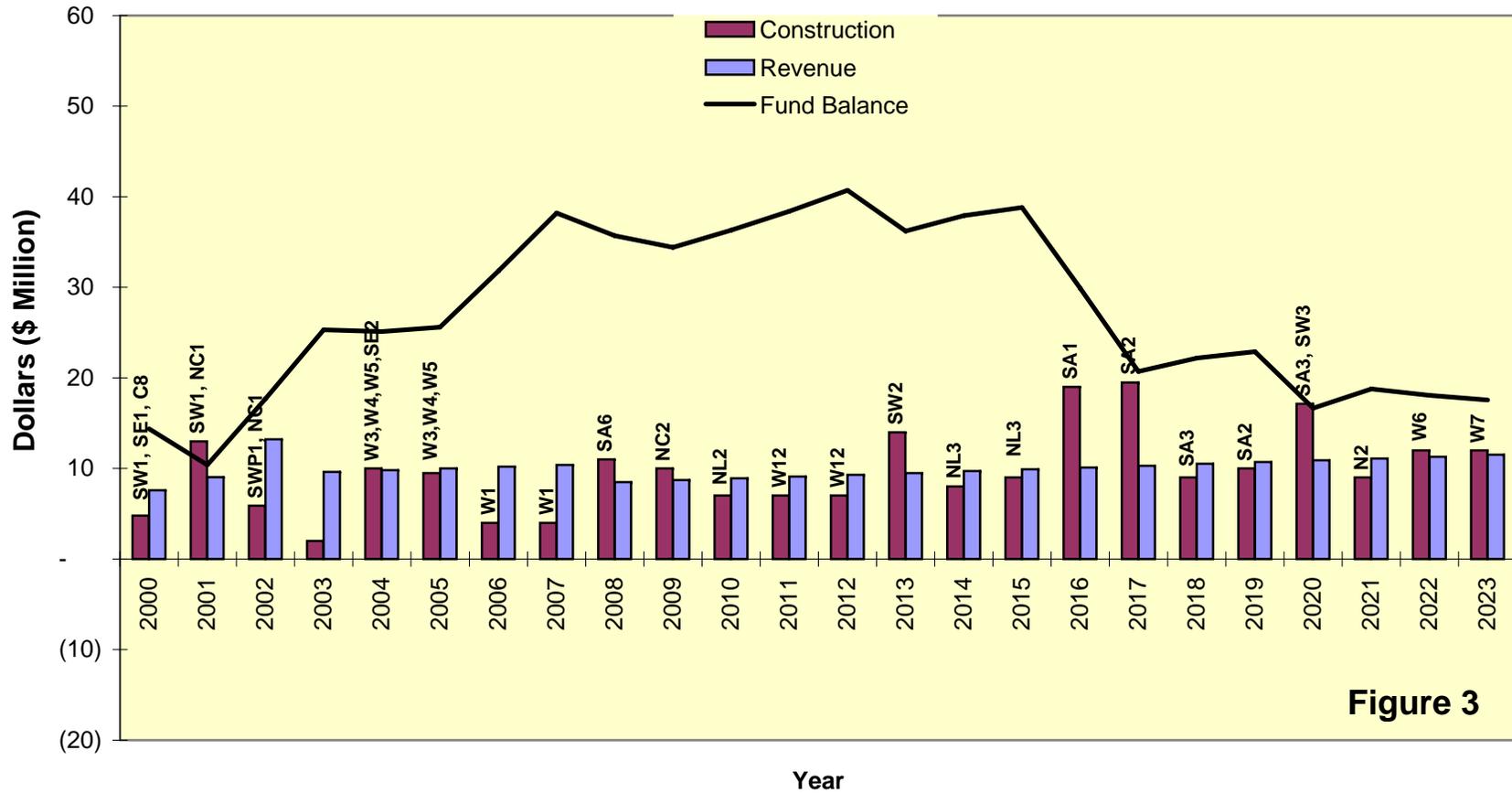
The following assumptions in the model remain unchanged:

a) Annual rate increases and construction cost increases of 2% after 2003,

The Twenty Year cash flow projection for the SSSF will be the main factor in any decision to raise the SSTC and EA rates

As the scope and schedule of future projects become better defined and new population projections become available, this information will be incorporated into the 20 year financial model. The Management Committee will continue to adjust the rate increases accordingly and determine if the 15% rate increases scheduled for 2005, 2010, 2015, & 2020 can be reduced or eliminated.

Sanitary Servicing Strategy Fund 20 Year Cash Flow Projection (2003-2023)



4.2 FIVE YEAR PROJECTION

Table 1 shows the Five Year projection for the Sanitary Sewer Strategy Fund (SSSF). This projection is based on the following assumptions:

Receipts

- **Opening Balance for 2002** – The actual SSSF balance as of December 31, 2001.
- **Receipts and Disbursements for 2002** – These are based on actual 2002 amounts.
- **Interest Accrual (2002 – 2007)** – The 2002 numbers are based on actual amounts. 2003-2007 amounts are based on an assumed 2.5% rate of return on the mid-year balance of the fund.
- **Utility Contribution** – This amount represents contributions from the Sanitary Utility for future diversion of sanitary flows from serviced City lands to the new trunk system constructed under the SSSF. These lands are located in Mill Woods, parts of the Meadows and in Castle Downs. The amount is calculated based on an estimate of the Sanitary Sewer Trunk Charge these lands would have to pay. Based on current projections, the Sanitary Utility will make these contributions to the SSSF until 2014.

The Sanitary Utility is currently providing \$2.6 million per year to the SSSF.

Sanitary Sewer Trunk Charge – The SSTC is collected when an application is made for a Development Permit or sanitary service connection. This charge applies to all new development and redevelopment in the City. The following are the SSTC rates for 2002 and 2003:

The Sanitary Sewer Trunk Charge has increased by 2% for 2002.

<u>Type of development</u>	<u>2002</u>	<u>2003</u>
Single-family/Duplex Residential	\$765/dwelling	\$780/dwelling
Multi-family Residential	\$546/dwelling	\$557/dwelling
Commercial, Industrial, Institutional	\$3,822/ha	\$3,898/ha

Estimated SSTC revenue from 2003 to 2007 are based on projected development within the City.

Sanitary Servicing Strategy Fund
Annual Report

- **Expansion Assessment (EA)** – The EA is an area-based assessment that is collected at the time of subdivision, development permit application or sanitary service connection application. The EA applies to those areas of the City that did not have an approved Neighborhood Structure Plan (NSP) before January 1, 1999. The 2002 rates and the 2003 rates for EA are as follows:

The Expansion Assessment is collected from the contributing areas as shown on Figure 2.

<u>Contributing Area</u>	<u>2002</u>	<u>2003</u>
North Edmonton Sanitary Trunk (NEST)	\$10,920/ha	\$11,138/ha
South Edmonton Sanitary Sewer (SESS)	\$10,920/ha	\$11,138/ha
Terwillegar and University Farms (TUFS)	\$10,920/ha	\$11,138/ha
West Edmonton Sanitary Sewer (WESS)	\$13,650/ha	\$13,923/ha

Disbursements

- **Estimated Construction Costs** – The 2002 amounts are based on actual construction costs incurred. The timing of construction is a critical factor for the fund balance.
- **Over-expenditure Payback** – The over-expenditure (OE) payback is payable to the City for the construction of two sanitary trunk lines: the N.W. Annexation Area South Sanitary Trunk and the Clareview Interceptor. The City front-ended the construction costs for these two projects. As development occurs within the sewer benefiting areas, the Expansion Assessment is collected from the developments and are paid to the City. The projected over-expenditure paybacks are based on anticipated developments within the benefiting areas.

Over-expenditure Paybacks are payments made to the City for front-ending two sanitary sewers.

TABLE 1 - SANITARY SERVICING STRATEGY FUND - 5 YEAR PROJECTION

	<i>Actual</i> <i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
Opening Balance	\$ 10,410,298	\$ 17,758,944	\$ 25,631,944	\$ 25,743,944	\$ 26,509,944	33,009,944
Interest Accruals	297,735	535,000	634,000	645,000	734,000	899,000
Utility System Contribution	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000
Sanitary Sewer Trunk Charge	6,300,727	4,243,000	4,328,000	4,415,000	4,503,000	4,593,000
Expansion Assessment	4,223,962	2,757,000	2,812,000	2,868,000	2,925,000	2,984,000
Total Receipts	13,422,424	10,135,000	10,374,000	10,528,000	10,762,000	11,076,000
Estimated Construction Costs	(5,943,639)	(2,000,000)	(10,000,000)	(9,500,000)	(4,000,000)	(4,000,000)
OE Payback	(130,139)	(262,000)	(262,000)	(262,000)	(262,000)	(262,000)
Total Disbursements	(6,073,778)	(2,262,000)	(10,262,000)	(9,762,000)	(4,262,000)	(4,262,000)
Closing Reserve Balance	\$ 17,758,944	\$ 25,631,944	\$ 25,743,944	\$ 26,509,944	\$ 33,009,944	\$ 39,823,944

Estimated Costs

	Total 2003-2007	<i>Actual</i> <i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
C8	-	1,425	-	-	-	-	-
SW1	-	2,574,258	-	-	-	-	-
NC1	-	2,838,649	-	-	-	-	-
W2-W12 Concept Plan	300,000	305,736	300,000	-	-	-	-
SW2-SW7 Concept Plan	500,000	-	500,000	-	-	-	-
SE2	1,000,000	-	-	1,000,000	-	-	-
W3	6,400,000	-	400,000	3,000,000	3,000,000	-	-
W4	6,400,000	-	400,000	3,000,000	3,000,000	-	-
W5	6,400,000	-	400,000	3,000,000	3,000,000	-	-
W1	8,500,000	223,571	-	-	500,000	4,000,000	4,000,000
	\$ 29,500,000	\$ 5,943,639	\$ 2,000,000	\$ 10,000,000	\$ 9,500,000	\$ 4,000,000	\$ 4,000,000

4.3 STATEMENT OF EQUITY FOR 2002

The Statement of Equity for 2002 is shown in Table 2. Figure 4 shows each revenue component as a percentage of the total revenues.

Total revenues were up 48% from 2001.

SSTC revenues were up from 2001 by 50% for single-family & duplex developments and 77% for multi-family developments.

Expansion Assessment revenues were up 145% from 2001.

REVENUES

Total revenues for 2002 were \$13,422,424, which is a 48% increase over the 2001 revenues.

Sanitary Sewer Trunk Charge (SSTC) – For 2002, SSTC revenues totaled \$6,300,727, which equates to a 50% increase over the 2001 SSTC revenues. Revenues of \$3,473,934 from single-family and duplex residential developments were the biggest component of the amounts received. Based on the 2002 \$765 per dwelling rate, this represents approximately 4,541 combined single-family and duplex housing starts. This amounts to a 40% increase over the estimated 3,240 starts in 2001.

The next largest component of SSTC income came from multi-family developments. The \$2,440,887 collected represents approximately 4,470 units being charged the \$546 per unit rate. Multi-family unit starts have grown at a very healthy pace in 2002 and were up 77% from 2001.

The remaining \$385,906 of SSTC revenue came from commercial, industrial, and institutional developments, representing approximately 101 hectares of assessed development. This is down 25% from the 135 hectares assessed in 2001.

Expansion Assessment (EA) – For 2002, the total EA collected was \$4,223,962, up 145% from 2001. This represents approximately 364 hectares of assessed development.

Utility Contribution – Total Utility contribution in 2002 was \$2,600,000.

Interest Earned – Total interest earned for 2002 was \$297,735, down from \$569,797. This is a result of a lower interest rates throughout 2002.

Sanitary Servicing Strategy Fund
Annual Report

EXPENDITURES

The major expenses in 2002 were \$2,574,258 for SW1 construction and \$2,838,649 for NC1 construction. Other expenses included \$305,736 for the WESS Stages W2-W12 Concept Plan and \$223,571 for the WESS Stage W1 Concept Plan.

TABLE 2 - STATEMENT OF EQUITY

Sanitary Service Strategy Fund

Statement of Equity

For the period ending December 31, 2002

	2001 Actual	2002 Actual	2002 Budget	2002 Variance
REVENUES				
Sanitary sewer trunk charge - single/duplex revenue	2,381,795	3,473,934	2,439,000	1,034,934
Sanitary sewer trunk charge - multi family revenue	1,322,719	2,440,887	1,354,000	1,086,887
Sanitary sewer trunk charge - commercial/industrial/institutional revenue	494,395	385,906	507,000	(121,094)
Expansion assessment	1,724,072	4,223,962	2,000,000	2,223,962
	5,922,981	10,524,689	6,300,000	4,224,689
Utility system contribution	2,600,000	2,600,000	2,600,000	-
Interest earned	569,797	297,735	455,000	(157,265)
Total Revenues	9,092,778	13,422,424	9,355,000	4,067,424
EXPENDITURES				
SESS - SW1	7,739,045	2,574,258	1,042,000	1,532,258
Clairview Sanitary Trunk - C8	92,974	1,425	-	1,425
NEST - NC1	5,011,612	2,838,649	3,605,000	(766,351)
WESS - W1 Concept Plan	141,026	223,571	220,000	3,571
WESS - W2-W12 Concept Plan	-	305,736	519,000	(213,264)
Over Expenditure Payback	30,420	130,139	262,000	(131,861)
Total Expenditures	13,015,077	6,073,778	5,648,000	425,778
Excess of Revenues over Expenditures	(3,922,299)	7,348,646	3,707,000	3,641,646
Opening Balance (January 1, 2002)	14,332,597	10,410,298	10,410,298	
Closing Balance (December 31, 2002)	\$ 10,410,298	\$ 17,758,944	\$ 14,117,298	\$ 3,641,646

FIGURE 4 - SSSF Revenues for 2002 (\$13.4 million)

