MSD METROPOLITAN SERVICE DISTRICT
1220 S.W. MORRISON, ROOM 300, PORTLAND, OREGON 97205
(503) 222-3671

SEPTEMBER 19, 1978

TO: MSD BOARD MANAGEMENT COMMITTEE
(FOR MANAGEMENT COMMITTEE ONLY - NOT FOR PUBLIC DISCLOSURE)

FROM: STAFF

SUBJECT: EVALUATION OF OREGON CITY RESOURCE RECOVERY FACILITY FINANCING AND CONSIDERATION OF THE MSD/PPC PHASE II AGREEMENT

ON AUGUST 25, 1978, THE MSD BOARD RECEIVED A LETTER FROM PUBLISHERS PAPER COMPANY INDICATING COMPLETION OF FIRST PHASE ENGINEERING FOR THE RESOURCE RECOVERY PROJECT. THE LETTER INDICATED TECHNICAL AND FINANCIAL FEASIBILITY FOR IMPLEMENTATION OF THE FACILITY IN OREGON CITY.

THE LETTER WAS ACCOMPANIED BY A DRAFT AGREEMENT TO UNDERTAKE ADDITIONAL ENGINEERING WORK AND BEGIN NEGOTIATIONS FOR FINAL PROJECT AGREEMENTS.

DURING THE WEEK OF SEPTEMBER 11 MSD STAFF MET WITH REPRESENTATIVES OF PETE, MARWICK, & MITCHELL (PMM), ANDERSON & SHOORS (AS), CONSULTING ENGINEERS, AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA), TO REVIEW INFORMATION REGARDING THE PROJECT. BASED ON A REVIEW OF THE PROJECT MATERIAL, AND THESE MEETINGS, THE STAFF REPORTS THE FOLLOWING:

1. THE PROJECT APPEARS TO BE TECHNICALLY AND FINANCIALLY FEASIBLE.
2. THE FINANCIAL STRUCTURE OF THE PROJECT INCLUDING THE CONCEPT OF TIMES MIRROR EQUITY CONTRIBUTION, CREATION OF

A SUBSIDIARY TO OWN THE FACILITY, AND THE SUBSIDIARY'S SALE OF ENERGY TO PUBLISHERS PAPER COMPANY, SEEMS ACCEPTABLE FROM MSD'S VIEWPOINT. THESE ARRANGEMENTS ARE EXPRESSED IN FIGURES 1, 2, AND 3 OF ATTACHMENT A.

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5. THE ALTERNATIVES AVAILABLE TO MSD ARE LIMITED AND ARE MORE FULLY DESCRIBED IN THE REPORT "DISPOSAL SITING ALTERNATIVES".
6. THE TERMS EXPRESSED IN THE WHITE WELD FINANCIAL REPORT GENERALLY FAVOR PUBLISHERS AND TIMES MIRROR AND TEND TO REPRESENT AN INITIAL NEGOTIATING POSITION. ATTACHMENT D OUTLINES TYPICAL ITEMS TO BE NEGOTIATED IN THE PROJECT.

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ATTACHMENT A

Figures 1, 2 and 3 describe in pictorial representation:

(1) the relationship of the private entities
(2) the flow of initial capital in a leverage lease concept
(3) generalized cash flow during operation of the facility in 1982.

The dollar amounts were obtained from Merrill Lynch White Weld Capital Markets Group, dated August 2, 1978.

Figure 2 depicts the cash flow of initial capital in which the allocation are as follows:

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Figure 3 depicts a generalized cash flow for early stages of the facility's operation. The dollar per ton figures were obtained from Merrill Lynch White Weld Capital Markets Group, dated August 2, 1978.

FIGURE 1

The Relationship of Private Entities

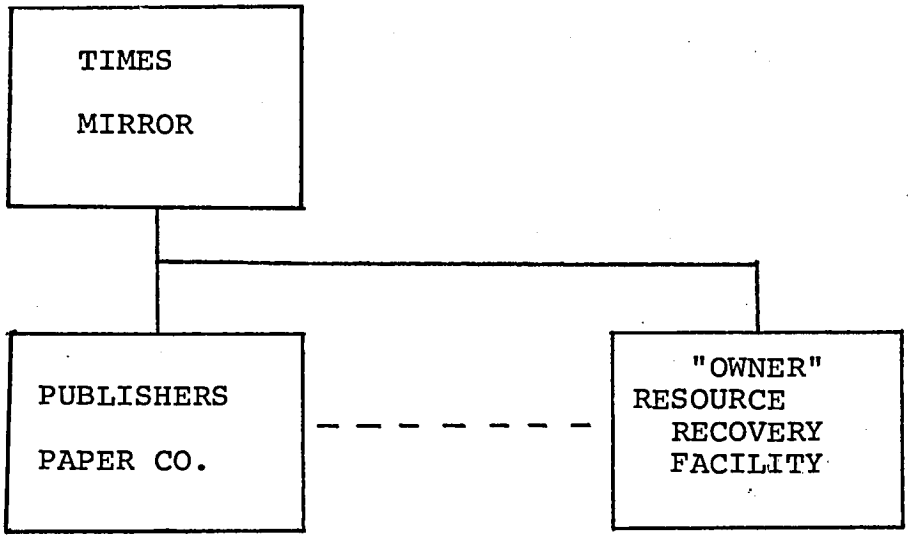


FIGURE 2

FLOWS OF INITIAL CAPITAL IN
LEVERAGE LEASE CONCEPT

(Dollar amounts from Merrill Lynch Report Dated August)

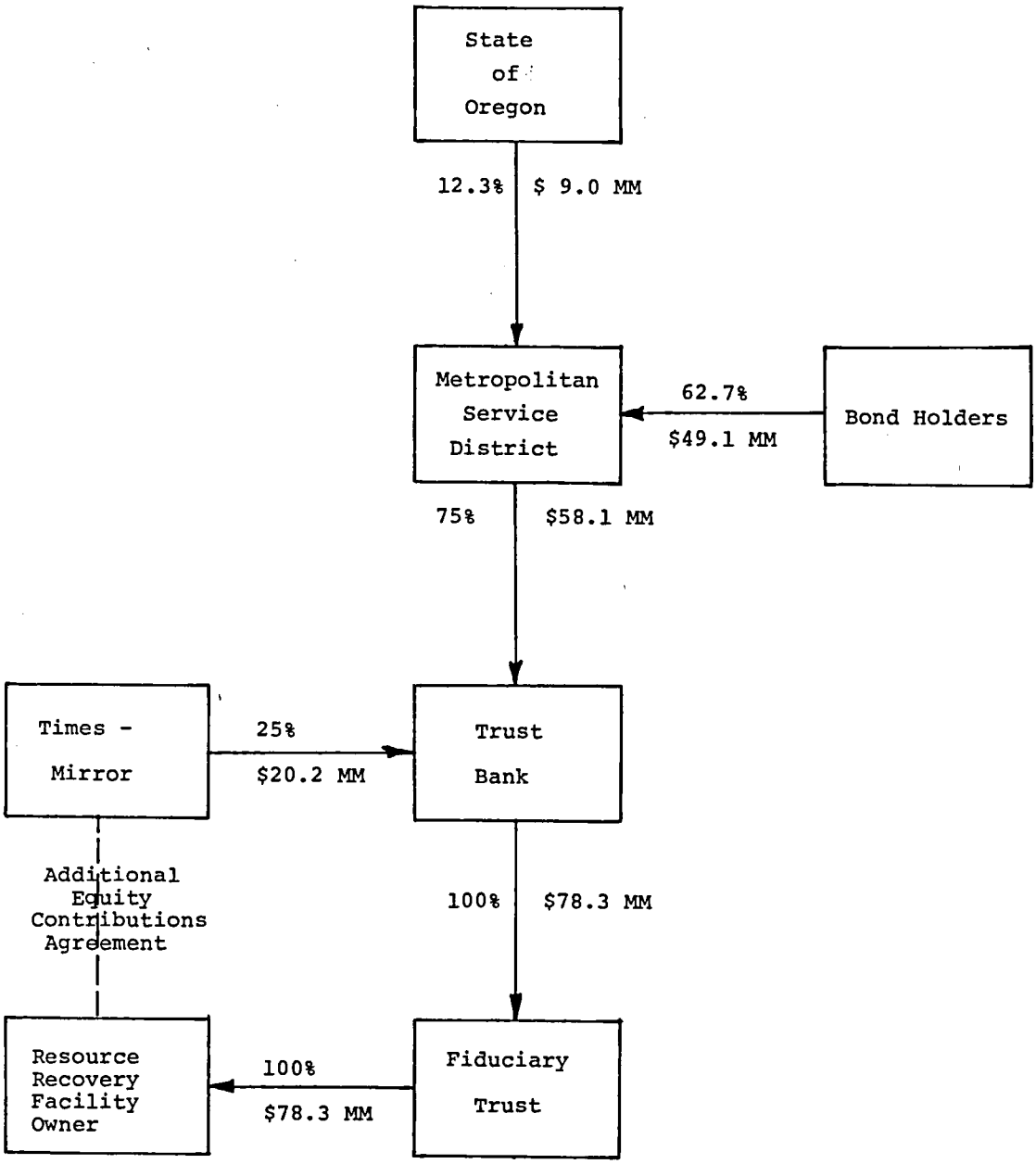
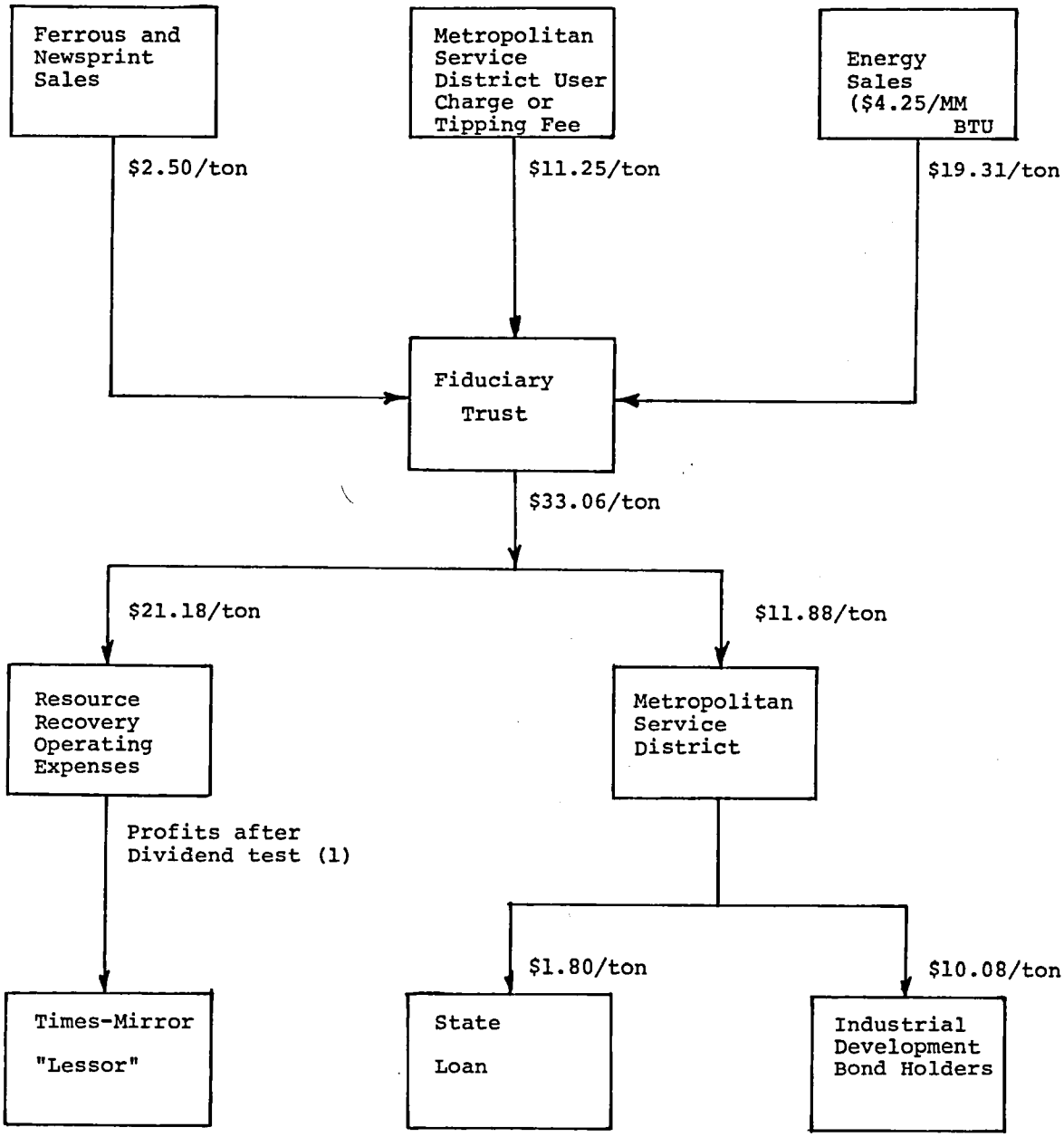


FIGURE 3

GENERALIZED CASH FLOW

IN 1982 DOLLARS PER TON

(Dollar Amounts from Merrill Lynch Report Dated August 1978)



(1) No dividends are payable unless there has been basic debt service coverage of 1.0 over the previous two years, and there is at least $2,000,000 in short-term investments.

ATTACHMENT B

The following two pages (B-3 and B-4) provide an estimation of the potential benefits to Publishers Paper Company (PPC)/Times Mirror (TM) as a result of investing $20.2 million in the resource recovery project. The assumptions or rational for the numbers shown in each column is as follows:

Column 1 - Shows 50% of the annual dividends reported in the White Weld Financeability Report (WWFR). Fifty percent is assumed to represent the after tax benefit to TM.

Column 2 - Shows the 10% federal investment tax credit as reported in the WWFR.

Column 3 - Shows the State of Oregon investment tax credit allowed for pollution control equipment as reported in the WWFR.

Column 4 - Shows 50% of the book depreciation reported in the WWFR which is assumed to represent the annual tax deduction allowed for depreciation. Actual depreciation used for tax purposes is likely to be greater since accelerated depreciation rates may be used for investments of this kind.

Column 5 - Shows 50% of the annual interest costs reported in the WWFR which is assumed to represent the annual tax deduction allowed for interest.

Column 6 - Shows 50% of the annual property tax reported in the WWFR which is assumed to represent the property tax deduction allowed for state and local taxes.

Column 7 - Shows an estimate of possible savings to PPC resulting from the lowering of the Oregon City tax rate which should result from construction of this project.

Column 8 - Shows the effect of a potential federal tax credit being considered by Congress for investment in pollution control equipment.

Column 9 - Shows the actual annual investment of TM in this project.

Column 10 - Shows the annual investment of TM in this project less other benefits estimated in that year.

Column 11 - Shows the total of Columns 1 through 7 or 1 through 8 as noted by the letter (a).

Column 12 - Shows Column 11 divided by 386,000/tons (the projected annual throughput of the plant).

Page B-4 shows other important cost relationships which can be used by comparison purposes on Page B-3 and displays the results of the table from Page B-4.

YEAR		(1) DIVIDENDS PAYABLE (50%) FROM PROJECT EARNINGS	(2) INVESTMENT CREDIT *	(3) STATE POLLUTION CONTROL EQUIP. CREDIT	(4) BOOK DEPR. (50%)	(5) INTREST (50%)	(6) PROPERTY TAX DEDUCT. (50%)	(7) PROPERTY TAX SAVINGS (EST.)	(8) POTENTIAL FED. POL. ** CONTROL EQUIP. CREDIT	(9) INVESTMENT T.M.	TOTAL LESS INVESTMENT (10)	(11) TOTAL ($000)	(12) TOTAL ($/TON)	
n		-ALL		TOTAL	$	FIGURES		REPORTED	AS ($000) --					
0	1980		2280			1391				(6774)	(3103)	3671	(8.04)	
1	81		3070			1876				(13451)	(8505)	4946	(22.03)	
2	82		770	1664	1579	1860	831	150	4970			11824	17.76	30.63(a)
3	83			1664	1579	1863	889	150				6118	15.85	
4	84			1664	1579	1792	951	150				6136	15.90	
5	85			1664	1579	1728	1018	150				6139	15.90	
6	86			1664	1579	1643	1089	150				6125	15.87	
7	87	396		1664	1579	1539	1165	150				6493	16.82	
8	88	803		1664	1579	1438	1247	150				6881	17.83	
9	89	839		1664	1579	1343	1334	150				6409	17.90	
10	90	1024		1664	1579	1232	1428	150				7077	18.33	
11	91	1444		1664	1579	1103	1528	150				7468	19.35	
12	92	2212			1579	966	1635	150				6542	16.95	
13	93	2109			1579	860	1749	150				6447	16.70	
14	94	2588			1579	720	1872	150				6909	17.90	
15	95	3091			1579	578	2003	150				7401	19.17	
16	96	3621			1579	435	2143	150				7928	20.54	
17	97	4179			1579	292	2293	150				8493	22.00	
18	98	4767			1579	147	2453	150				9096	23.56	
19	99	5387			1579		2625	150				9741	25.24	
20	2000	6042			1579	(294)	2809	150				10286	26.65	
21	01	8198			1579	(591)	3005	150				12341	32.20	
TOTAL ($)		46,700	6120	16640	31580	21894	34067	3000	4970	20225		139726		
$/TON	TOTAL 8106	5.76	0.75	2.05	3.90	2.70	4.20	0.37	0.61	2.50		17.85(a) 17.24		
ROI		5.41 21.89	14.36									61.8%(a) 49.2%		
		0	1	2	3	4	5	6	7	8	9	10	11	12

Sources: 1-6 Merrill Lynch White Weld Report Dated Aug. 18, 1978 and assuming 50% Tax Rate for T.M.

7 Estimated @ $25 x 10^6 w/Savings in Tax Rate of $6/1000

(a) Numbers followed by (a) show effect of including investment credit for pollution control equipment.

Legislation currently under consideration may increase Federal Investment Credit from 10% to 20%, allow for faster write off of investments through accelerated depreciation rate, and reduce corporate taxes by 2%.

Other legislation is being considered by Congress to add a 10% Investment Credit for pollution abatement equipment.

I. TOTAL TIPPING FEES ÷ TOTAL TONNAGE 178002/8106 = $21.96

II. TOTAL NEWSPRINT/FERROUS SALES ÷ TOTAL TONNAGE 39601/8106 = $4.89

III. TOTAL ENERGY SALES ÷ TOTAL TONNAGE 30562/8106 = $37.70

$21.96
4.89
37.70

IV. TOTAL OF I,II,III $64.55

V. TOTAL VALUE OF CASH PLUS NON CASH BENEFITS = $139,726,000

VI. TOTAL TAX CREDITS =

FEDERAL INVESTMENT CREDIT (10%)	= $ 6,120,000	
STATE POLLUTION CONTROL TAX CREDIT (10% PER YEAR)	= 16,640,000	
SUB TOTAL	= $22,760,000	(1)
POSSIBLE FEDERAL TAX CREDIT (10%) POLUTION CONTROL EQUIPMENT	= $ 4,970,000	(2)
TOTAL (1) + (2)	= $27,730,000	

VII. OTHER BENEFITS

NET DIV. AFTER TAXES (AT 50%)	= $46,700,000
50% DEPRECIATION	= $31,580,000
50% INTEREST	= $21,894,000
50% PROPERTY TAXES	= $34,067,000
PROPERTY TAX SAVINGS	= $ 3,000,000

ATTACHMENT C

PROJECT RISKS

The equation generally used to describe resource recovery project economics is the following:

Cost of Capital + Cost of Operation = Income from Recoverables + Tipping Fees

Projections of each of the elements in this equation are the basis for analyzing the quality of any resource recovery project. Tipping fees are usually the element which must be increased if something goes wrong with the other three elements of the equation; however, this can only be determined by contract negotiation.

Some examples of typical things that can go wrong are the following:

Capital Costs

Underestimation of capital costs.
Delays in Construction.
Changes in interest rates.
Additional capital investment needed after startup to achieve operating performance.
New environmental requirements.

Project Operating Costs

Excessive downtime.
Manpower estimates lower than needed.
Maintenance costs higher than predicted.
Replacement parts budget inadequate.
Residue disposal costs underestimated.

Revenue from Recoverables

Less material or energy recovered.
Composition of wastes different from that assumed.
Product quality below standard.
Price projections not realized.

Supply of Solid Wastes

Amount of waste in area overestimated.
Waste stream is not delivered to facility.
A less costly, alternate technique or technology is developed for waste disposal.

The consequences to the project from any of these occurrences varies significantly. Figure C.1 shows the effect on the tipping fee of various assumptions regarding escalation of energy income revenues.

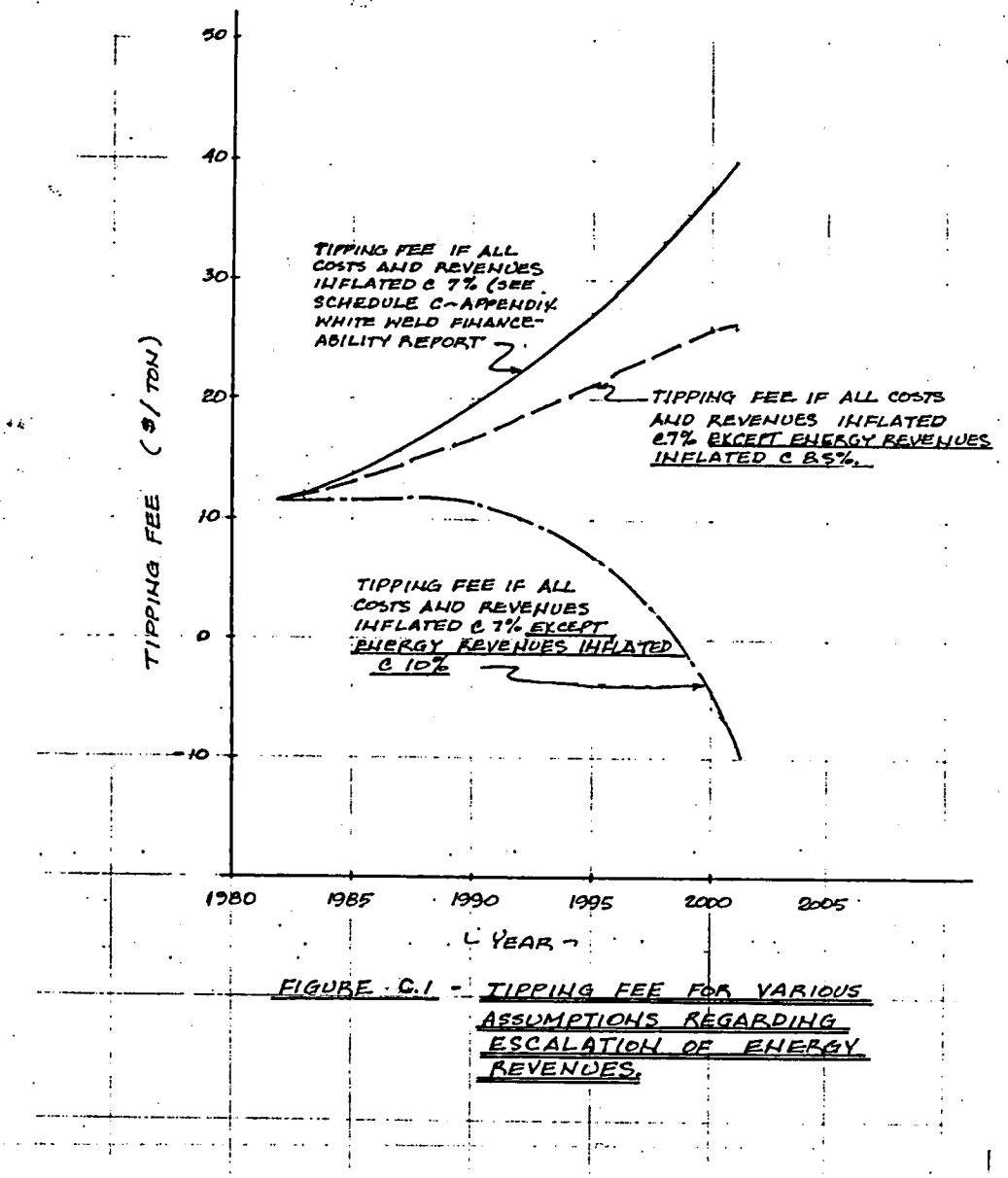


FIGURE C.1 - TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING ESCALATION OF ENERGY REVENUES.

A 10% increase in project capital requirements would require an initial tipping fee increase of $1.95. The effect of other capital cost consequences are shown in Figure C.2.

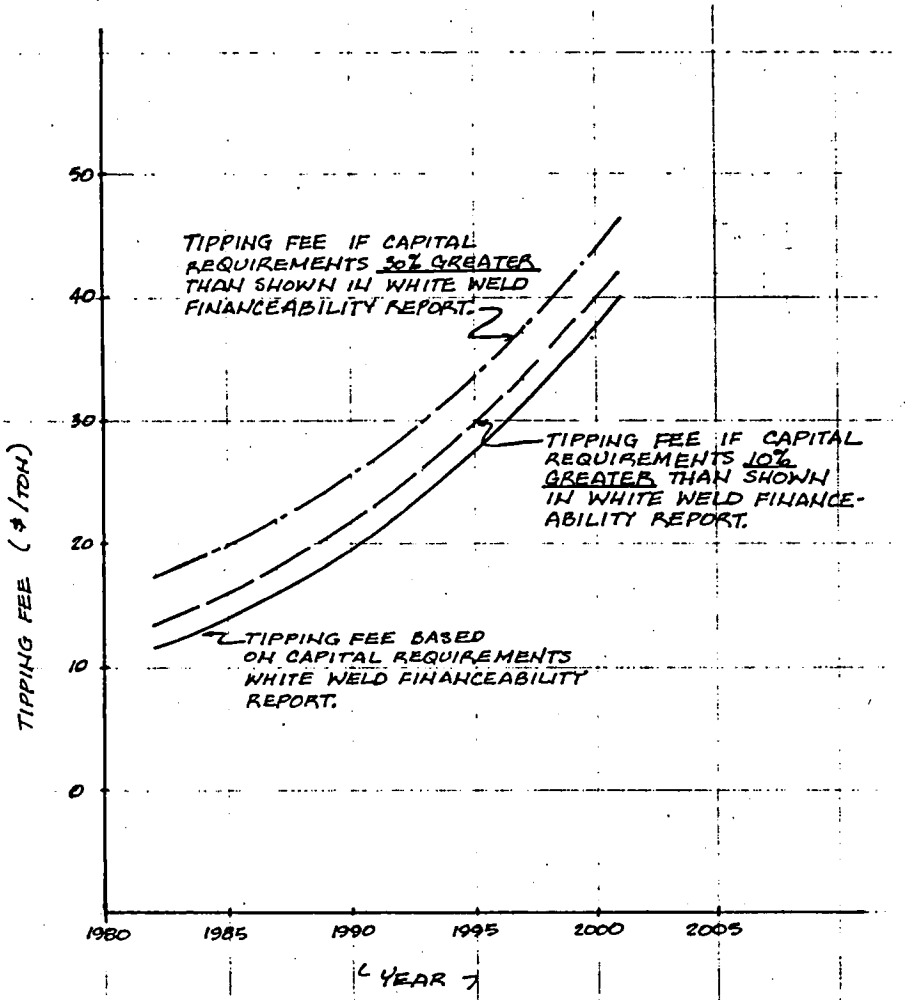


FIGURE C.2 - TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING PROJECT CAPITAL REQUIREMENTS

The consequence to the project of incorrectly estimated operating costs is shown in Figure C.3. For example if operating costs are underestimated by 10% or $817,500, the tipping fee would have to be increased to $13.37 or by 19% to provide the same benefits to the other project participants.

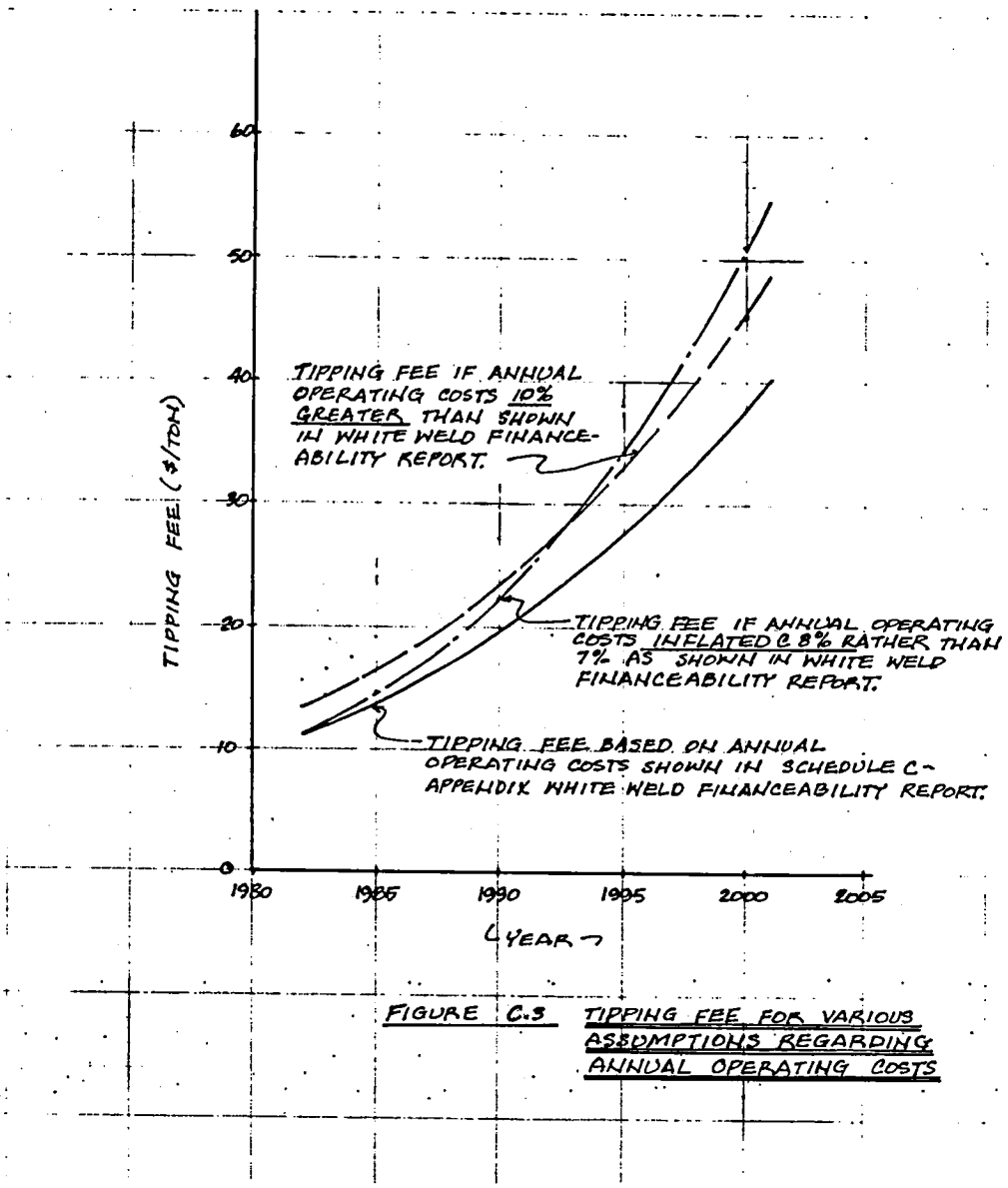


FIGURE C.3 TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING ANNUAL OPERATING COSTS

Presumably the most serious consequence to the project would result from the inability to supply the prescribed tonnage to the plant. Not only would the amount of money needed per unit of solid waste disposed increase but also the alternate cost of fuel which would have been supplied by the undelivered waste must be added to that delivered.

A detailed list of all project risks is possible only after assignment which occurs during contract negotiations.

ISSUE	WHERE ADDRESSED	DISCUSSION	RECOMMENDED POSITION	PRIORITY/ IMPORTANCE
1. Adjustments to tipping fees resulting from fluctuations in Solid Waste deliveries	1. Throughout Bechtel report. 2. Financial report (FR) shows costs of scheduled and unscheduled outages Also p.3, p5,p.9,p10. p2 Appendix	1.MSD must guarantee delivery of a certain amount of Solid Waste as one of "underpinnings" of project. Below stipulated amount,notcenough steam will be produced to supply PPC mill. Publishers would like MSD's "guarantee" to be high i.e.400,000 tons annually corresponding to projections in Bechtel report. MSD will need to provide assurance that enough waste will be provided to supply steam demands or supply alternate fuel. If plant is down, and cannot accept Solid Waste alternate disposal is required. Garbage trucks cannot be diverted on short notice. Fluctuations in energy, ferrous metals, or newsprint content of waste stream are difficult to measure, control, or even estimate.	1.(a)MSD will guarantee to provide enough waste on daily basis to meet minimum plant steam demands, or pay for altermate fuel. (probably fuel oil). (b)PPC must accept all deliveries of Solid Waste or pay for alternate disposal and transp. costs below certain level. (c)Adjustments can be made quarterly to correct (a) and (b). (d)PPC must accept all steam produced by boiler and plant residues & ash should not exceed specified level. (e)No charges allowable to project for fuel purchases if sufficient waste delivered. (f)No adjustments or attempt to measure heat content of fuel.-pay on steam only basis.	
2. Force majure		2.Project participants would like to use force majure clause to protect them from all kinds of uncertainties Bondholders seek the most narrow definition.	2.Force majure should cover only events clearly outside of control of participants. Thus strikes cannot be included in force majure context.	
3. Subordination of State Bonds - Payback	F.R. p4, Appendix.	3.White Weld has suggested State bonds be subordinated to other debt and that no principal payments be required until 10th year of project.	3.Same payback as other bonds, subordination subject to state or legal constraints.	
4. Length of project/ length of bonds	F.R.	4.Longer project life and/or bond length reduce the tipping fee unless sinking funds for plant and equipment required. Bondholders desire shorter write-off.	4.Longer project seems more desirable Seek lowest cost. If shorter period required renewal options very important	

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5.Spare parts cost item	Bechtel report. F.R. appendix p.2	5.Spare parts are partially a capital item, and require periodic replacement	5.Project should be charged on an as used basis rather than as a reoccuring expense.--especially if $600,000 annually.	
6.Operation and maintenance costs on turbine generator and pipeline	F.R.	6.In preparing the report the consultants included these costs as a part of project. If not included as part of project will probably be deducted from value of energy. IRS or bondholders may reject inclusion in project cost.	6.Whatever most benefits tipping fee. If deducted from energy valve, but excluded from energy escalation possible benefit to tipping fee	
7.Tax credits,deductions and benefits	Not addressed in project documents See staff report. Attach."B"	7.The benefits may justify a lower tipping fee to MSD users. Because these benefits are not ordinarly included in most ROI analysis there is a tendency to underplay their worth. Occasionally such credits or benefits are increased or decreased, outside of the control of project participants.	7.The tipping fee must be reduced as low as possible. How much?	
8.Inflation	p9-See risks, attachment	8.If energy inflates at a faster rate than general inflation and if all these benefits could accrue to the user's,then the tipping fee could eventually be reduced to zero, or a negative number. On the other hand, more inflation in O&M kind of cost could quickly change the projected economics.	8.(a)Inflation should be treated as a shared risk. Contract should use the best indices possible to describe this specific project (B.L.S., A.P.I., etc.) (b)Most of energy escalation should benefit tipping fee. Publisher's is receiving "uninteruptable supply" which will be an extinct feature of future energy supplies.	

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9.Project dividends, earnings, or other cash excesses,	F.R.	9.By the fifth year of operation the project is expected to show sufficient earnings to pay dividends. White Weld has suggested that these earnings are paid as dividends to the parent company. Together with the tax credits and other benefits this is the "reward" for Times Mirror's investment.	9.Project dividends should <u>also</u> (in addition to being paid to T.M.) go for reduction of the tipping fee (50-50 split?)	
10.Timing of equity investments by T.M.	F.R.	10.White Weld has indicated that Times Mirror equity contributions to the project be timed so as to be the <u>last</u> funds added.	10.All capital funds should be made available at the same time and interest earnings accrue to the project.	
11.Unplanned tipping fee increases	F.R.	11.If their are unplanned for increases in property taxes or cash shortfalls beyond certain limits specified in the financial report then White Weld has suggested that the tipping fee would have to be increased to cover costs. It also seems evident that dividends would not be paid in such cases; however, the energy valve seems isolated from these cash shortfalls.	11.If tipping fees are adjusted for unplanned events then the energy costs to PPC should also be similarly considered.	
12.Examination of owners books/consistent reporting periods.	Not addressed	12.	12Access to the owners books should be provided in the contract/and accounting periods for the entity and MSD should correspond to each other.	

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MSD BOARD MANAGEMENT COMMITTEE

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A G E N D A

RESOURCE RECOVERY FACILITY - PHASE II AGREEMENT WITH PUBLISHERS PAPER COMPANY

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1220 S.W. MORRISON, ROOM 300, PORTLAND, OREGON 97205
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MSD BOARD MANAGEMENT COMMITTEE

WASHINGTON PARK ZOO
EDUCATION BUILDING

SEPTEMBER 22, 1978
12:00 NOON

A G E N D A

EVALUATION OF OREGON CITY RESOURCE RECOVERY FACILITY

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(503) ~~222-3611~~ 248-5470

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FIGURE 1

The Relationship of Private Entities

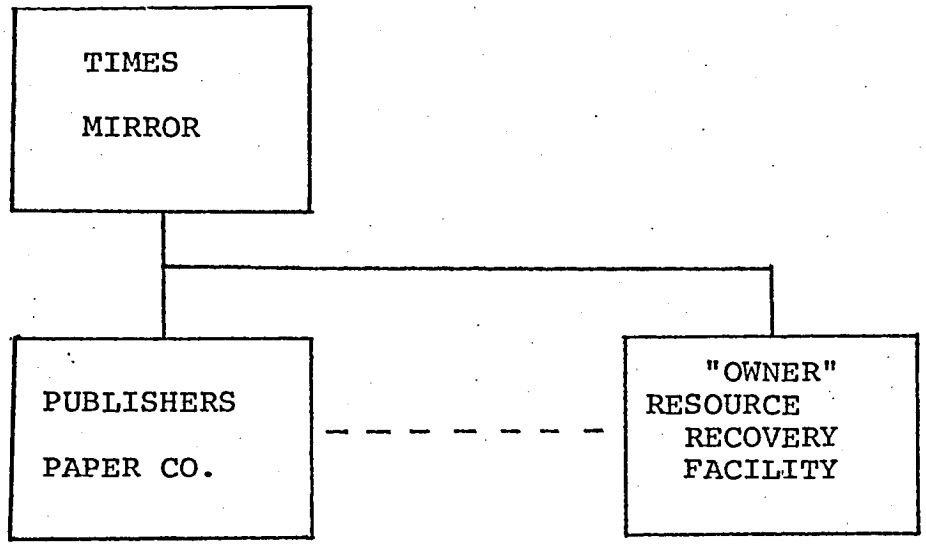


FIGURE 2

FLOWS OF INITIAL CAPITAL IN
LEVERAGE LEASE CONCEPT

(Dollar amounts from Merrill Lynch Report Dated August)

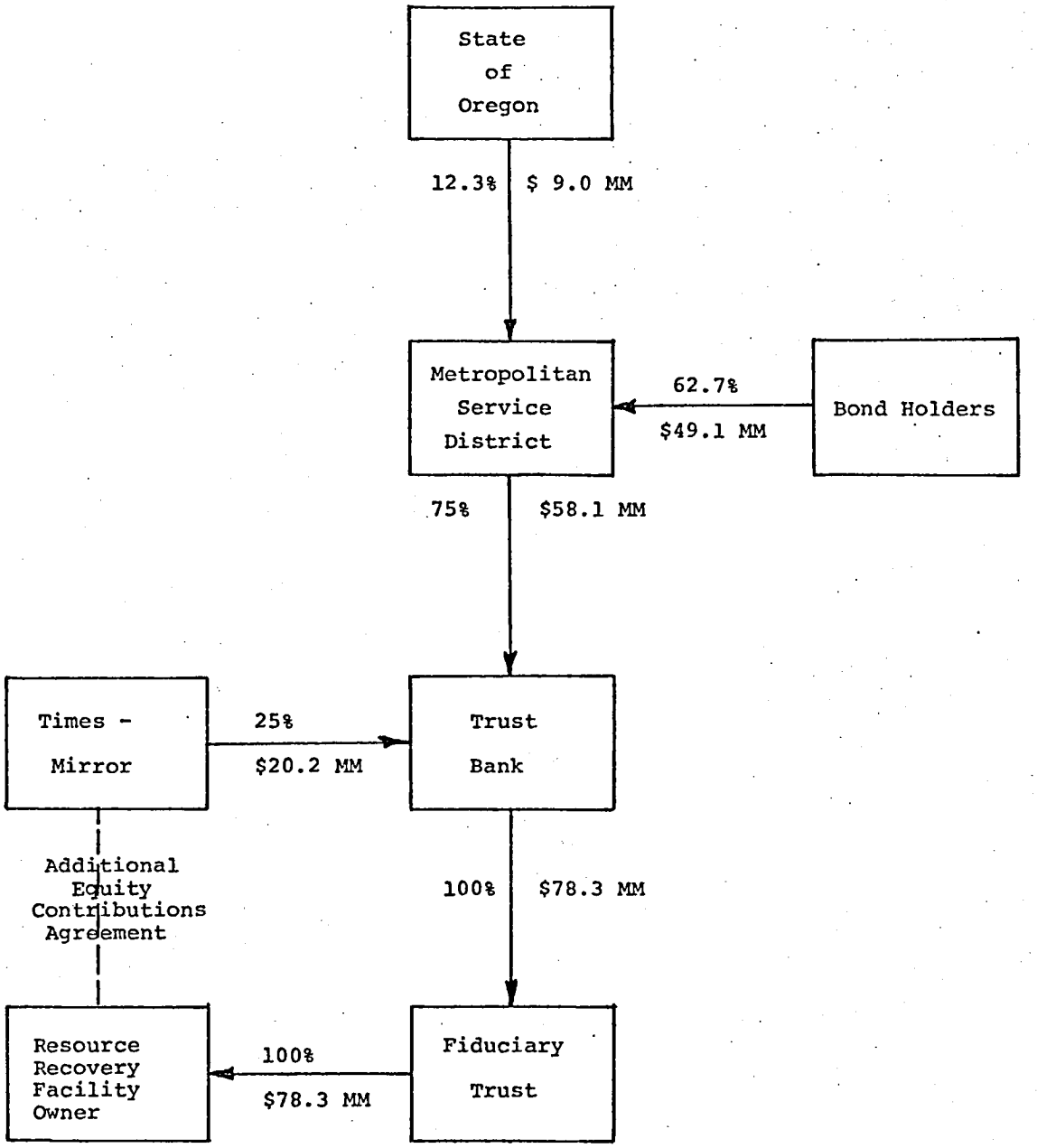
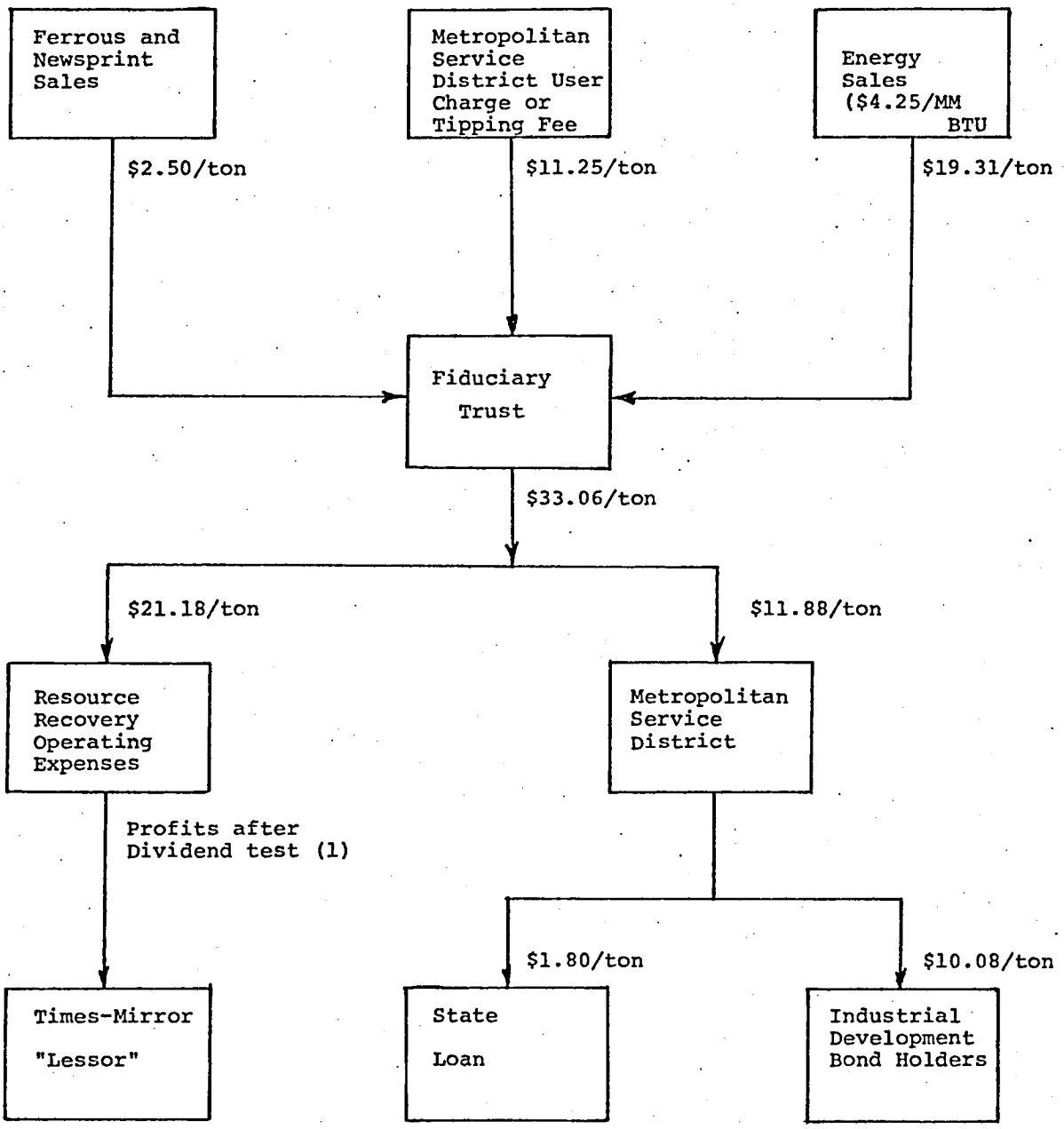


FIGURE 3

GENERALIZED CASH FLOW

IN 1982 DOLLARS PER TON

(Dollar Amounts from Merrill Lynch Report Dated August 1978)



(1) No dividends are payable unless there has been basic debt service coverage of 1.0 over the previous two years, and there is at least $2,000,000 in short-term investments.

ATTACHMENT B

The following two pages (B-3 and B-4) provide an estimation of the potential benefits to Publishers Paper Company (PPC)/Times Mirror (TM) as a result of investing $20.2 million in the resource recovery project. The assumptions or rational for the numbers shown in each column is as follows:

Column 1 - Shows 50% of the annual dividends reported in the White Weld Financeability Report (WWFR). Fifty percent is assumed to represent the after tax benefit to TM.

Column 2 - Shows the 10% federal investment tax credit as reported in the WWFR.

Column 3 - Shows the State of Oregon investment tax credit allowed for pollution control equipment as reported in the WWFR.

Column 4 - Shows 50% of the book depreciation reported in the WWFR which is assumed to represent the annual tax deduction allowed for depreciation. Actual depreciation used for tax purposes is likely to be greater since accelerated depreciation rates may be used for investments of this kind.

Column 5 - Shows 50% of the annual interest costs reported in the WWFR which is assumed to represent the annual tax deduction allowed for interest.

Column 6 - Shows 50% of the annual property tax reported in the WWFR which is assumed to represent the property tax deduction allowed for state and local taxes.

Column 7 - Shows an estimate of possible savings to PPC resulting from the lowering of the Oregon City tax rate which should result from construction of this project.

Column 8 - Shows the effect of a potential federal tax credit being considered by Congress for investment in pollution control equipment.

Column 9 - Shows the actual annual investment of TM in this project.

Column 10 - Shows the annual investment of TM in this project less other benefits estimated in that year.

Column 11 - Shows the total of Columns 1 through 7 or 1 through 8 as noted by the letter (a).

Column 12 - Shows Column 11 divided by 386,000/tons (the projected annual throughput of the plant).

Page B-4 shows other important cost relationships which can be used by comparison purposes on Page B-3 and displays the results of the table from Page B-4.

YEAR		(1) DIVIDENDS PAYABLE (50%) FROM PROJECT EARNINGS	(2) INVESTMENT CREDIT *	(3) STATE POLLUTION CONTROL EQUIP. CREDIT	(4) BOOK DEPR. (50%)	(5) INTREST (50%)	(6) PROPERTY TAX DEDUCT. (50%)	(7) PROPERTY TAX SAVINGS (EST.)	(8) POTENTIAL FED. POL. ** CONTROL EQUIP. CREDIT	(9) INVESTMENT T.M.	TOTAL LESS INVESTMENT (10)	(11) TOTAL ($000)	(12) TOTAL ($/TON)	
n		-ALL		TOTAL	$	FIGURES		REPORTED		AS ($000)				
0	1980		2280			1391				(6774)	(3103)	3671	(8.04)	
1	81		3070			1876				(13451)	(8505)	4946	(22.03)	
2	82		770	1664	1579	1860	831	150	4970			11824	17.76	30.63(a)
3	83			1664	1579	1863	889	150				6118	15.85	
4	84			1664	1579	1792	951	150				6136	15.90	
5	85			1664	1579	1728	1018	150				6139	15.90	
6	86			1664	1579	1643	1089	150				6125	15.87	
7	87	396		1664	1579	1539	1165	150				6493	16.82	
8	88	803		1664	1579	1438	1247	150				6881	17.83	
9	89	839		1664	1579	1343	1334	150				6409	17.90	
10	90	1024		1664	1579	1232	1428	150				7077	18.33	
11	91	1444		1664	1579	1103	1528	150				7468	19.35	
12	92	2212			1579	966	1635	150				6542	16.95	
13	93	2109			1579	860	1749	150				6447	16.70	
14	94	2588			1579	720	1872	150				6909	17.90	
15	95	3091			1579	578	2003	150				7401	19.17	
16	96	3621			1579	435	2143	150				7928	20.54	
17	97	4179			1579	292	2293	150				8493	22.00	
18	98	4767			1579	147	2453	150				9096	23.56	
19	99	5387			1579		2625	150				9741	25.24	
20	2000	6042			1579	(294)	2809	150				10286	26.65	
21	01	8198			1579	(591)	3005	150				12341	32.20	
TOTAL ($)		46,700	6120	16640	31580	21894	34067	3000	4970	20225		139726		
$/TON	TOTAL / 8106	5.76	0.75	2.05	3.90	2.70	4.20	0.37	0.61	2.50		17.85(a) 17.24		
ROI		5.41 21.89	14.36									61.8%(a) 49.2%		
		0	1	2	3	4	5	6	7	8	9	10	11	12

Sources: 1-6 Merrill Lynch White Weld Report Dated Aug. 18, 1978 and assuming 50% Tax Rate for T.M.

7 Estimated @ $25 x 10^6 w/Savings in Tax Rate of $6/1000

(a) Numbers followed by (a) show effect of including investment credit for pollution control equipment.

* Legislation currently under consideration may increase Federal Investment Credi from 10% to 20%, allow for faster write off of investments through accelerated depreciation rate, and reduce corporate taxes by 2%.

** Other legislation is being considered by Congress to add a 10% Investment Credi

I. TOTAL TIPPING FEES ÷ TOTAL TONNAGE 178002/8106 = $21.96

II. TOTAL NEWSPRINT/FERROUS SALES ÷ TOTAL TONNAGE 39601/8106 = $4.89

III. TOTAL ENERGY SALES ÷ TOTAL TONNAGE 30562/8106 = $37.70

$21.96
4.89
37.70

IV. TOTAL OF I,II,III $64.55

V. TOTAL VALUE OF CASH PLUS NON CASH BENEFITS = $139,726,000

VI. TOTAL TAX CREDITS =

FEDERAL INVESTMENT CREDIT (10%)	= $ 6,120,000	
STATE POLLUTION CONTROL TAX CREDIT (10% PER YEAR)	= 16,640,000	
SUB TOTAL	= $22,760,000	(1)
POSSIBLE FEDERAL TAX CREDIT (10%) POLUTION CONTROL EQUIPMENT	= $ 4,970,000	(2)
TOTAL (1) + (2)	= $27,730,000	

VII. OTHER BENEFITS

NET DIV. AFTER TAXES (AT 50%)	= $46,700,000
50% DEPRECIATION	= $31,580,000
50% INTEREST	= $21,894,000
50% PROPERTY TAXES	= $34,067,000
PROPERTY TAX SAVINGS	= $ 3,000,000

ATTACHMENT C

PROJECT RISKS

The equation generally used to describe resource recovery project economics is the following:

Cost of Capital + Cost of Operation = Income from Recoverables + Tipping Fees

Projections of each of the elements in this equation are the basis for analyzing the quality of any resource recovery project. Tipping fees are usually the element which must be increased if something goes wrong with the other three elements of the equation; however, this can only be determined by contract negotiation.

Some examples of typical things that can go wrong are the following:

Capital Costs

Underestimation of capital costs.
Delays in Construction.
Changes in interest rates.
Additional capital investment needed after startup to achieve operating performance.
New environmental requirements.

Project Operating Costs

Excessive downtime.
Manpower estimates lower than needed.
Maintenance costs higher than predicted.
Replacement parts budget inadequate.
Residue disposal costs underestimated.

Revenue from Recoverables

Less material or energy recovered.
Composition of wastes different from that assumed.
Product quality below standard.
Price projections not realized.

Supply of Solid Wastes

Amount of waste in area overestimated.
Waste stream is not delivered to facility.
A less costly, alternate technique or technology is developed for waste disposal.

The consequences to the project from any of these occurrences varies significantly. Figure C.1 shows the effect on the tipping fee of various assumptions regarding escalation of energy income revenues.

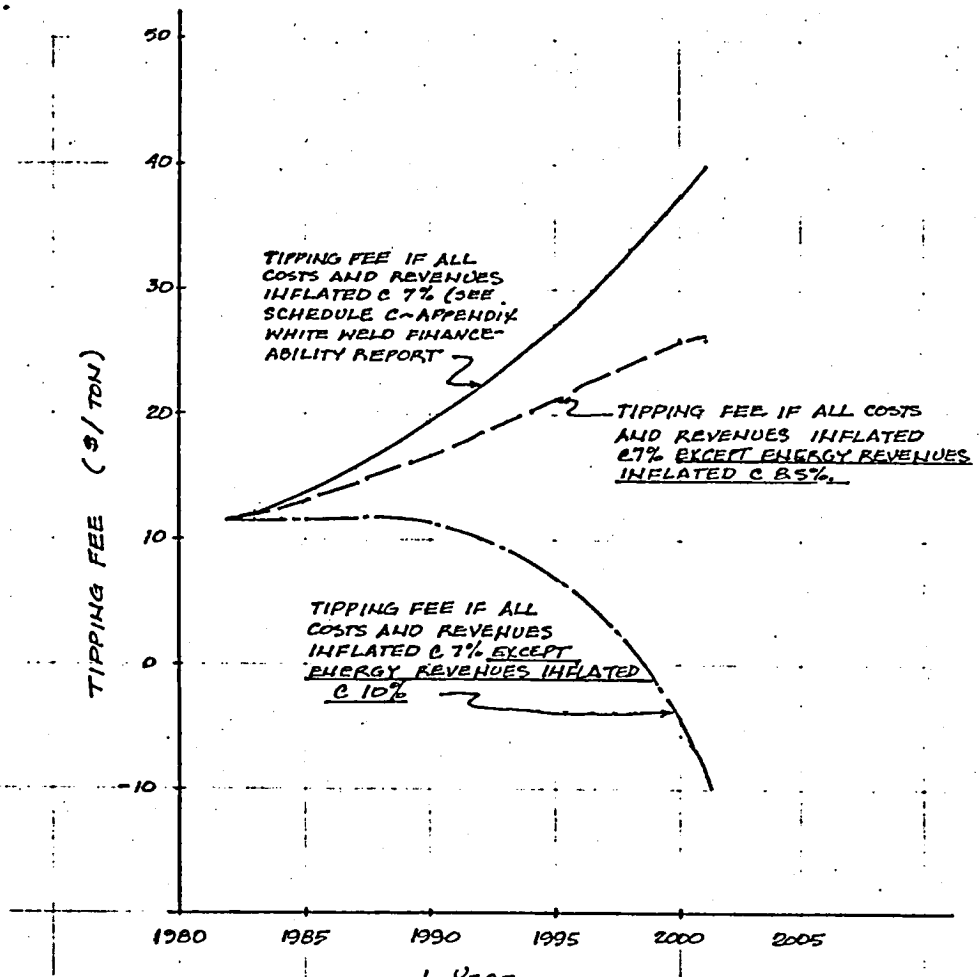


FIGURE C.1 - TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING ESCALATION OF ENERGY REVENUES.

A 10% increase in project capital requirements would require an initial tipping fee increase of $1.95. The effect of other capital cost consequences are shown in Figure C.2.

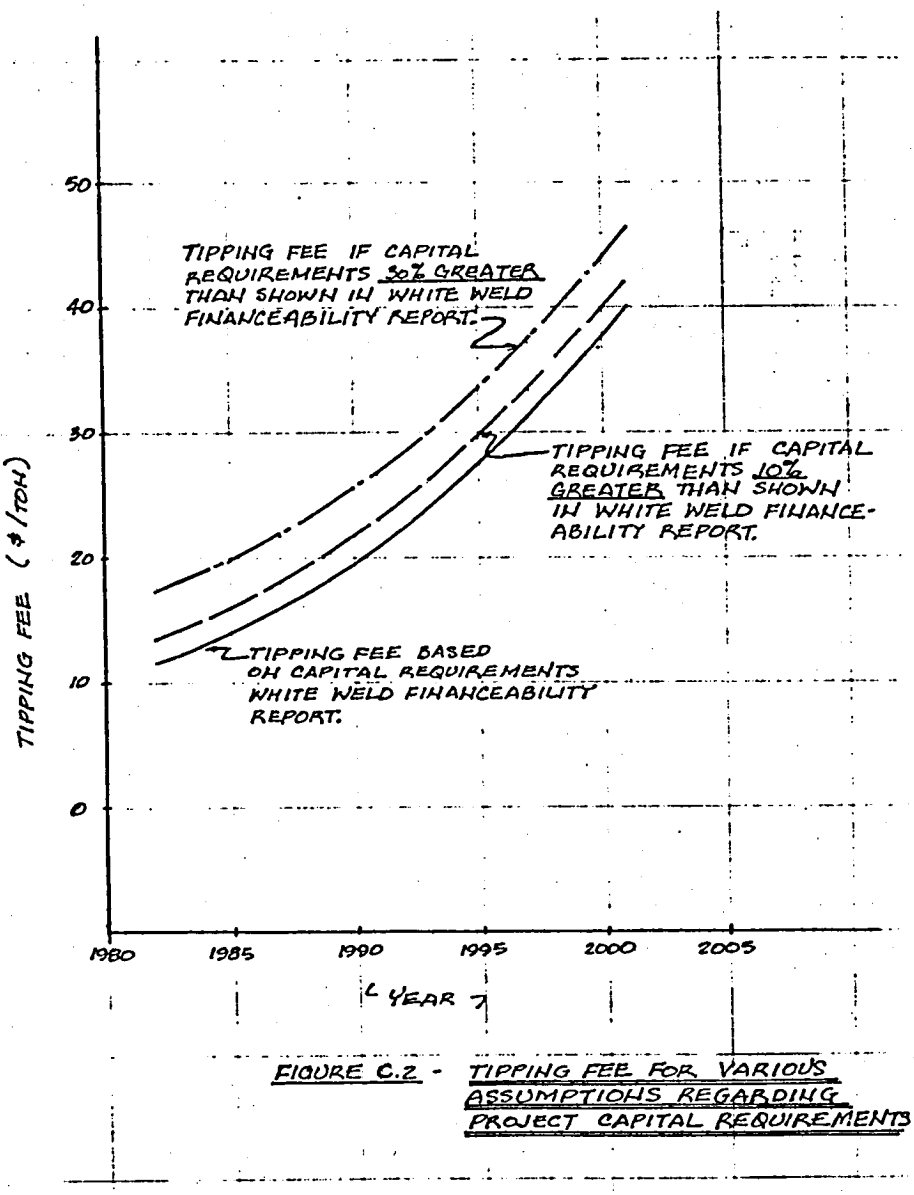


FIGURE C.2 - TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING PROJECT CAPITAL REQUIREMENTS

The consequence to the project of incorrectly estimated operating costs is shown in Figure C.3. For example if operating costs are underestimated by 10% or $817,500, the tipping fee would have to be increased to $13.37 or by 19% to provide the same benefits to the other project participants.

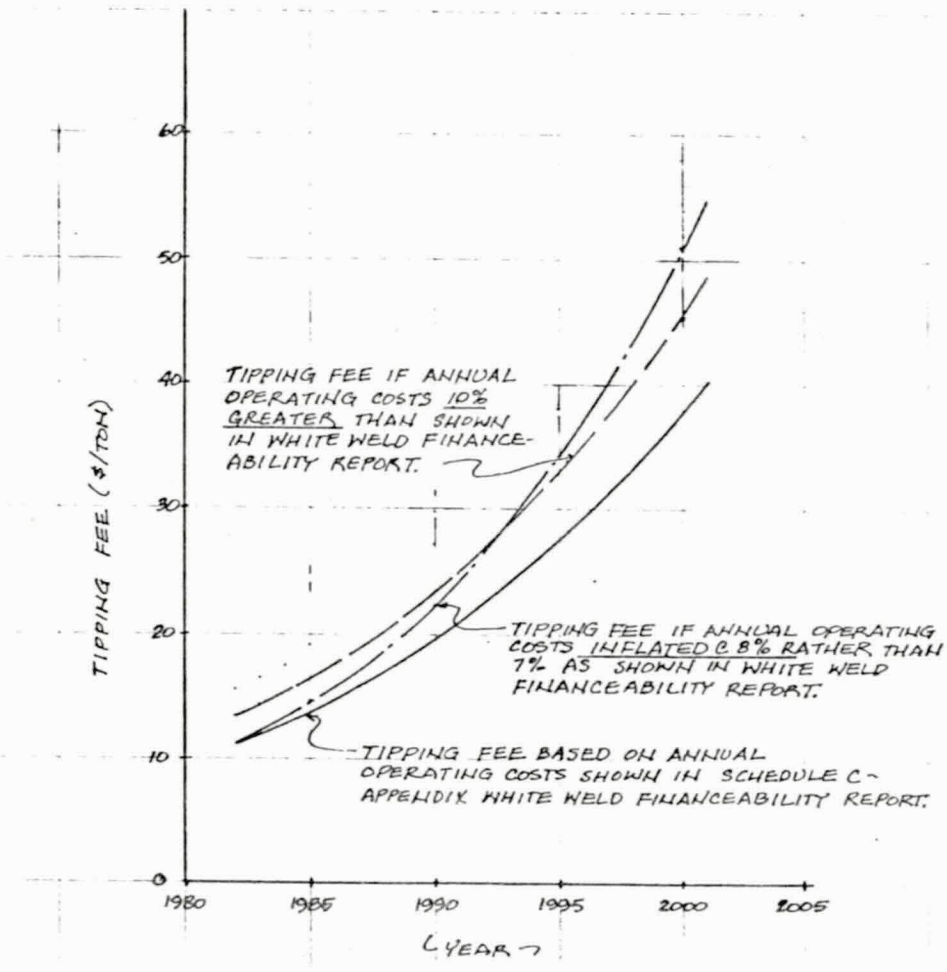


FIGURE C.3 TIPPING FEE FOR VARIOUS ASSUMPTIONS REGARDING ANNUAL OPERATING COSTS

Presumably the most serious consequence to the project would result from the inability to supply the prescribed tonnage to the plant. Not only would the amount of money needed per unit of solid waste disposed increase but also the alternate cost of fuel which would have been supplied by the undelivered waste must be added to that delivered.

A detailed list of all project risks is possible only after assignment which occurs during contract negotiations.

ISSUE	WHERE ADDRESSED	DISCUSSION	RECOMMENDED POSITION	PRIORITY/ IMPORTANCE
1. Adjustments to tipping fees resulting from fluctuations in Solid Waste deliveries	1. Throughout Bechtel report. 2. Financial report (FR) shows costs of scheduled and unscheduled outages Also p.3, p5, p.9, p10. p2 Appendix	1.MSD must guarantee delivery of a certain amount of Solid Waste as one of "underpinnings" of project. Below stipulated amount, not enough steam will be produced to supply PPC mill. Publishers would like MSD's "guarantee" to be high i.e.400,000 tons annually corresponding to projections in Bechtel report. MSD will need to provide assurance that enough waste will be provided to supply steam demands or supply alternate fuel. If plant is down, and cannot accept Solid Waste alternate disposal is required. Garbage trucks cannot be diverted on short notice. Fluctuations in energy, ferrous metals, or newsprint content of waste stream are difficult to measure, control, or even estimate	1.(a)MSD will guarantee to provide enough waste on daily basis to meet minimum plant steam demands, or pay for altermate fuel. (probably fuel oil). (b)PPC must accept all deliveries of Solid Waste or pay for alternate disposal and transp. costs below certain level. (c)Adjustments can be made quarterly to correct (a) and (b). (d)PPC must accept all steam produced by boiler and plant residues & ash should not exceed specified level. (e)No charges allowable to project for fuel purchases if sufficient waste delivered. (f)No adjustments or attempt to measure heat content of fuel.-pay on steam only basis.	
2. Force majure		2.Project participants would like to use force majure clause to protect them from all kinds of uncertainties Bondholders seek the most narrow definition.	2.Force majure should cover only events clearly outside of control of participants. Thus strikes cannot be included in force majure context.	
3. Subordination of State Bonds - Payback	F.R. p4, Appendix.	3.White Weld has suggested State bonds be subordinated to other debt and that no principal payments be required until 10th year of project.	3.Same payback as other bonds, subordination subject to state or legal constraints.	
4. Length of project/ length of bonds	F.R.	4.Longer project life and/or bond length reduce the tipping fee unless sinking funds for plant and equipment required. Bondholders desire shorter write-off.	4.Longer project seems more desirable Seek lowest cost. If shorter period required renewal options very important	

ISSUE	WHERE ADDRESSED	DISCUSSION	RECOMMEMDED POSITION	PRIORITY/ IMPORTANCE
5.Spare parts cost item	Bechtel report. F.R. appendix p.2	5.Spare parts are partially a capital item, and require periodic replacement	5.Project should be charged on an as used basis rather than as a reoccuring expense.--especially if $600,000 annually.	
6.Operation and maintenance costs on turbine generator and pipeline	F.R.	6.In preparing the report the consultants included these costs as a part of project. If not included as part of project will probably be deducted from value of energy. IRS or bondholders may reject inclusion in project cost.	6.Whatever most benefits tipping fee. If deducted from energy valve, but excluded from energy escalation possible benefit to tipping fee	
7.Tax credits,deductions and benefits	Not addressed in project documents See staff report. Attach."B"	7.The benefits may justify a lower tipping fee to MSD users. Because these benefits are not ordinarly included in most ROI analysis there is a tendency to underplay their worth. Occasionally such credits or benefits are increased or decreased, outside of the control of project participants.	7.The tipping fee must be reduced as low as possible. How much?	
8.Inflation	p9-See risks, attachment	8.If energy inflates at a faster rate than general inflation and if all these benefits could accrue to the user's,then the tipping fee could eventually be reduced to zero, or a negative number. On the other hand, more inflation in O&M kind of cost could quickly change the projected economics.	8.(a)Inflation should be treated as a shared risk. Contract should use the best indices possible to describe this specific project (B.L.S., A.P.I., etc.) (b)Most of energy escalation should benefit tipping fee. Publisher's is receiving "uninteruptable supply" which will be an extinct feature of future energy supplies.	

ISSUE	WHERE ADDRESSED	DISCUSSION	RECOMMENDED POSITION	PRIORITY/ IMPORTANCE
9.Project dividends, earnings, or other cash excesses,	F.R.	9.By the fifth year of operation the project is expected to show sufficient earnings to pay dividends. White Weld has suggested that these earnings are paid as dividends to the parent company. Together with the tax credits and other benefits this is the "reward" for Times Mirror's investment.	9.Project dividends should also (in addition to being paid to T.M.) go for reduction of the tipping fee (50-50 split?)	
10.Timing of equity investments by T.M.	F.R.	10.White Weld has indicated that Times Mirror equity contributions to the project be timed so as to be the last funds added.	10.All capital funds should be made available at the same time and interest earnings accrue to the project.	
11.Unplanned tipping fee increases	F.R.	11.If their are unplanned for increases in property taxes or cash shortfalls beyond certain limits specified in the financial report then White Weld has suggested that the tipping fee would have to be increased to cover costs. It also seems evident that dividends would not be paid in such cases; however, the energy valve seems isolated from these cash shortfalls.	11.If tipping fees are adjusted for unplanned events then the energy costs to PPC should also be similarly considered.	
12.Examination of owners books/consistent reporting periods.	Not addressed	12.	12Access to the owners books should be provided in the contract/and accounting periods for the entity and MSD should correspond to each other.	