

# PHASE I

## VOLUME 1

### FORM D: ENVIRONMENTAL ASSESSMENT

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RRLF Project

**Table D-1**

**EXISTING DAILY TRAFFIC ON I-80\***

<b>Direction</b>	<b>ADT (total vehicles/day)</b>	<b>ADT (trucks/day)</b>	<b>Percent of Total Traffic that Trucks Comprise</b>
Eastbound	14,016	5,466	39
Westbound	14,576	5,685	39
<b>Total</b>	<b>28,592</b>	<b>11,151</b>	<b>39</b>

\*Between the Snow Shoe and Kylertown exits.

Source: *Internet Traffic Monitoring System*. Pennsylvania Department of Transportation. 2002.  
30 Apr. 2004 <<http://164.156.5.83/itms/default.asp>>.

**Table D-2**

**PREDICTED RRLF TRUCK TRAFFIC ON I-80 BASED UPON  
PROPOSED AVERAGE DAILY VOLUME OF WASTE**

<b>Direction</b>	<b>Number of Waste Trucks per Day</b>	<b>Percent of Truck Traffic Waste Trucks Will Comprise</b>	<b>Percent of Total Traffic Waste Trucks Will Comprise</b>
Eastbound	25	0.46	0.18
Westbound	225	3.8	1.5
<b>Total</b>	<b>250</b>	<b>2.2</b>	<b>0.87</b>

Assumptions:

1. Average 20-ton net load of waste per truck.
2. Anticipation of 10 percent of waste coming from the west and 90 percent from the east.
3. The proposed permitted average daily volume (ADV) and the permitted maximum daily volume (MDV) of the RRLF is 5,000 tons per day.

**Table D-3**

**TOTAL TRIP GENERATION FROM PROPOSED RRLF**

Traffic Source	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			ADT
	In	Out	Total	In	Out	Total	In	Out	Total	
Landfill & Support Facilities	35	5	40	5	35	40	3	3	6	150
Landfill Employees	49	7	56	7	49	56	28	28	56	560
<b>TOTAL</b>	<b>84</b>	<b>12</b>	<b>115</b>	<b>12</b>	<b>84</b>	<b>115</b>	<b>31</b>	<b>31</b>	<b>82</b>	<b>710</b>

**Table D-4**

**PROJECTED OPERATION-RELATED NOISE CONTRIBUTIONS AT EACH RECEPTOR LOCATION DUE TO THE PROPOSED RRLF\***

Location	Existing Noise Level	Predicted Noise Contribution from LF Operation	Predicted Total Noise Level During Landfill Operation	Change in Noise Level from LF Operation
Units	dB(A)	dB(A)	dB(A)	dB(A)
A	68.70	38.5	68.70	0.00
B	62.50	39.4	62.52	0.02
C	55.40	41.6	55.58	0.18
E	65.00	36.2	65.01	0.01
F	62.10	36.9	62.11	0.01
G	62.80	37.9	62.81	0.01
H	64.90	38.8	64.91	0.01
I	37.90	62.7	62.71	24.81

\*Operation-related noises from the landfill that were considered for the noise impact study include: the landfill gas flare (89.77 dB(A)), back-up alarms (87 dB(A)), and landfill compactor (80 dB(A)).

**Table D-5**

**SUMMARY OF LINE OF SIGHT STUDY RESULTS**

<b>Township</b>	<b>Total Municipality Population (2000 Census)</b>	<b>Total Municipality Area (mi<sup>2</sup>)</b>	<b>Municipality Area From Which Proposed RRLF will be Visible (mi<sup>2</sup>)</b>	<b>Percent of Total Municipality Area from which Proposed RRLF will be Visible</b>	<b>Estimated Maximum Population to which Proposed RRLF will be Visible*</b>	<b>Percentage of the Total Municipality Population to which RRLF will be Visible</b>
<b>Cooper</b>	2731	39.1	0.36	0.9	252	9.2
<b>Rush</b>	3466	150.8	0	0	0	0
<b>Snow Shoe</b>	1760	83.4	0	0	0	0
<b>Total</b>	<b>7957</b>	<b>273.3</b>	<b>0.36</b>	<b>0.1</b>	<b>252</b>	<b>3.2</b>

\*Calculated based upon counted residences within visibility area and reported average household size in 2000 Census. This maximum estimated visibility would not occur for approximately 20 to 25 years, and it is overestimated because tree heights used in the analysis are smaller than the actual tree heights that obscure the view, and the analysis neglects views obstructed due to houses and other structures, small clusters of trees, and other factors that will obscure the potential view.

Table D-6

**SUMMARY OF JURISDICTIONAL AND ISOLATED WETLAND AREAS IN THE  
SURVEY AREA OF THE PROPOSED RRLF PROJECT**

<b>Wetland Number</b>	<b>Wetland Community Classification<sup>1</sup></b>	<b>Isolated Wetlands (acres)</b>	<b>Jurisdictional Wetlands (acres)</b>
<b>Wetland W1</b>	<b>PEM/PFO</b>	<b>2.32</b>	--
<b>Wetland W2</b>	<b>PEM</b>	<b>3.55</b>	--
<b>Wetland W3</b>	<b>PEM/PSS</b>	--	<b>0.69</b>
Wetland W4	PFO/PEM	0.37	--
Wetland W5	PEM/PSS	--	0.02
Wetland W6	PFO/PEM	--	0.41
Wetland W7	PFO/PSS/PEM	--	0.07
Wetland W8	PEM/PFO	--	0.47
<b>Wetland W9</b>	<b>PEM/PFO</b>	--	<b>0.90</b>
<b>Wetland W10</b>	<b>PFO/PEM</b>	--	<b>3.01</b>
<b>Wetland W12</b>	<b>PEM/PFO</b>	<b>0.48</b>	--
Wetland W20	PEM/PSS	--	0.41
Wetland W21	PEM	--	0.21
Wetland W22	PFO/PEM	1.06	--
<b>Wetland W23</b>	<b>PFO/PEM</b>	--	<b>2.05</b>
<b>Wetland W24</b>	<b>PEM</b>	<b>0.17</b>	--
<b>Wetland W25</b>	<b>PEM</b>	<b>0.02</b>	--
Wetland W26	PEM/PFO	--	0.12
Wetland W27	PEM	--	1.14
Wetland W28	PEM	--	0.03
<b>Wetland W29</b>	<b>PEM</b>	<b>0.07</b>	--
Wetland W30	PEM	0.10	--
Wetland W31	PEM	--	0.19
<b>Wetland W32</b>	<b>PEM</b>	<b>0.40</b>	--
<b>Wetland W33</b>	<b>PEM</b>	--	<b>0.32</b>
Wetland W34	PEM	0.05	--
Wetland W35	PEM	--	0.19
Wetland W36	PEM	--	0.16
<b>TOTALS</b>		<b>8.59</b>	<b>10.39</b>
<b>SURVEY AREA TOTAL</b>		<b>18.98</b>	

<sup>1</sup>Field community classification based on Cowardin et al. 1979. PEM = Palustrine Emergent; PSS = Palustrine Scrub-Shrub; PFO = Palustrine Forested. Where multiple community types are listed, the dominant community type is listed first.

<sup>2</sup>Bold type indicates that all or part of the wetland is proposed to be impacted (taken or relocated) due to proposed RRLF.

**Table D-7  
SUMMARY OF FINANCIAL BENEFITS FROM THE RRLF**

<b>Recipient of Benefit</b>	<b>Type of Benefit</b>	<b>Amount Per Ton</b>	<b>Average Benefit Per Year (5000 tons per day)</b>	<b>Benefit Over Facility Life</b>
Rush Township	Host Fee <sup>1*</sup>	\$3.14	\$4,538,000	\$127,086,000
	Free Waste Disposal <sup>2</sup>	61.75	188,000	5,287,000
	Bulky Waste Disposal <sup>3</sup>	-	2,000	56,000
Snow Shoe Township	Impact Host Fee <sup>4*</sup>	0.57	818,000	22,928,000
	Free Waste Disposal <sup>2</sup>	61.75	95,885	2,684,000
Moshannon Creek Watershed Coalition	Post-Permit/Pre-Construction Contributions	-	-	100,000
	Annual Contribution (first 3 years of landfill operations)	-	-	300,000
	Annual Contribution (starting 4th year of landfill operations)	-	192,000	4,804,000
New Employees	Earned Income (wages)	-	2,500,000	70,000,000
Philipsburg-Osceola School District	Real Estate Tax <sup>5</sup>	-	1,000,000	30,000,000
	Wage Tax <sup>6,7</sup>	-	25,800	724,500
Centre County	Real Estate Tax <sup>5</sup>	-	200,000	600,000
Commonwealth of PA	Wage Tax <sup>7</sup>	-	79,400	2,224,280
	Initial Facility Construction Costs	-	-	73,000,000
	Equipment, Goods, and Services <sup>7</sup>	-	12,703,000	355,684,000
	Operating Costs <sup>7</sup>	-	4,688,000	131,267,000
	Act 101 Recycling Fee*	2.00	2,871,400	80,170,000
	Growing Greener Fee*	4.00	5,742,800	160,340,000
	Environmental Stewardship Fee*	0.25	358,900	10,021,250
<b>TOTAL</b>			<b>\$36,003,185</b>	<b>\$1,077,276,030</b>

\*The average value of these benefits per year was calculated based upon the projected graduated waste acceptance (2,000 tons per day [TPD] the first year, 3,000 TPD the second year, and so on up to 5,000 TPD). The total value of each of these benefits over the landfill life was calculated based upon the total capacity of the landfill (40,085,000 tons).

<sup>1</sup>Calculated by determining 6 percent of the tipping fee realized by Resource Recovery, LLC and subtracting the average Snow Shoe Township impact fee of \$0.57/ton, based on an initial tipping fee of \$60 per ton with an estimated inflation increase of 1% per year.

<sup>2</sup>Determined based upon the assumption that each resident produces 1,600 pounds of waste per year, and using the 2000 census population for Snow Shoe and Rush Townships of 1,760 and 3,466 people, respectively.

<sup>3</sup>Value of this benefit was estimated based upon the value of free bulky waste disposal recorded at Cumberland County Landfill for Hopewell Township and Newburg Borough, which have a combined population comparable to Rush Township.

<sup>4</sup>As stipulated in the Snow Shoe Township Cooperation Agreement, this will be equivalent to 0.833 percent of the gross tipping fee, which is assumed to be \$60 per ton initially, with an estimated inflation increase of 1% per year.

<sup>5</sup>The benefit from industrial real estate taxes was calculated by subtracting current real estate taxes paid for the subject property from the estimated taxes that will be paid after all facilities associated with the proposed RRLF are constructed.

<sup>6</sup>Revenues from this tax will be split between Centre County and the Philipsburg-Osceola School District.

<sup>7</sup>The total value of each of these benefits was calculated assuming an annual inflation rate of 2 percent.

Table D-8

## SUMMARY OF HARMS AND BENEFITS ASSOCIATED WITH THE PROPOSED RRLF PROJECT

BENEFITS <sup>3</sup>				
Benefit	Sub-Section	Description	Comments	
Economic	Rush Township host fee	average of \$3.14 paid to Rush Township per ton of waste accepted at RRLF	\$127,086,000 paid to Rush Township over landfill life	
	Snow Shoe Township impact fee	average of \$0.57 paid to Snow Shoe Township per ton of waste accepted at RRLF	\$22,928,000 paid to Snow Shoe Township over landfill life	
	tipping fee waiver	free waste disposal at the RRLF for Rush and Snow Shoe Township residents over life of landfill	\$7,970,000 value over landfill life	
	free bulky waste disposal	free bulky waste disposal for Rush Township residents once per month at RRLF	\$57,000 value over landfill life	
	MCWC contribution	annual financial contribution to MCWC	\$5,200,000 paid to MCWC over landfill life	
	real estate taxes (additional from increased property value)	Phillipsburg-Osceola School District		\$30,000,000 over landfill life
		Centre County		\$6,000,000 over landfill life
	earned income		69 new jobs will produce average annual earned income of \$2,500,000	\$70,000,000 of earned income (gross wages) to 69 new employees
landfill employee wage tax payments	Phillipsburg-Osceola School District		\$724,000 over landfill life	
	Centre County		\$2,224,000 over landfill life	

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## SUMMARY OF HARMS AND BENEFITS ASSOCIATED WITH THE PROPOSED RRLF PROJECT

<b>BENEFITS (cont)<sup>3</sup></b>			
<b>Benefit</b>	<b>Sub-Section</b>	<b>Description</b>	<b>Comments</b>
<b>Economic (cont.)</b>	equipment, goods, and services	capital construction costs for cell and closure systems – paid mostly to state and local contractors and suppliers	\$428,690,000 over landfill life
	operating costs	non-capital spending (excluding wages) that will go mostly to state and local contractors and suppliers	\$131,200,000 over landfill life
	Growing Greener Fee	\$4.00 paid to Commonwealth of PA per ton of waste accepted at CCLF	\$160,340,000 over landfill life
	Act 101 Recycling Fee	\$2.00 paid to Commonwealth of PA per ton of waste accepted at CCLF	\$80,170,000 over landfill life
	Environmental Stewardship Fee	\$0.25 paid to Commonwealth of PA per ton of waste accepted at CCLF	\$10,021,250 over landfill life
<b>Environmental</b>	recycling facilities	availability of recycling facilities to surrounding community	environmental service provided by RRLF
	MCWC Partnership	annual contribution of substantial funds to MCWC	funds will be used to (1) characterize Moshannon Creek watershed; (2) catalogue discharges into the watershed; (3) prepare a watershed restoration plan; and 4)implement individual remediation projects AMD-impacted areas in the watershed
	mine reclamation	abandoned mine areas will be reclaimed due to proposed landfill and soil borrow areas	safety hazards including highwalls, unstable slopes, and slide-prone areas will be eliminated, visual aesthetics will be improved by regrading highwalls and removing spoil piles, and site will be stabilized and improved in appearance by final revegetation following site closure

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## SUMMARY OF HARMS AND BENEFITS ASSOCIATED WITH THE PROPOSED RRLF PROJECT

BENEFITS (cont) <sup>3</sup>			
Benefit	Sub-Section	Description	Comments
Environmental (continued)	increased ecological value of on-site aquatic habitats	wetland mitigation areas will enhance wetland function and value and riparian enhancements will provide for stream bank stabilization along Moshannon Creek	improved habitat on the site, which has been severely degraded by previous mining and logging operations
Social	employment	employment of 69 full-time people at the proposed facility	RRLF will be a business that provides stable employment to the local community and gives job preference to Rush, Cooper, and Snow Shoe Township residents
	education	open house and educational programs offered to local community and schools	programs to inform the public and foster positive relationships between the RRLF and surrounding communities
	fulfillment of Rush Township Comp. Plan	construction of landfill infrastructure, I-80 interchange, etc. at the site will allow for fulfillment of the Rush Township Comprehensive Plan, which seeks to promote industry and create new jobs in the area	RRLF permitting and construction would promote economic and industrial growth in Rush Township
	fire company donation	RRLF will donate finances to the local fire company that would serve the facility to ensure preparedness in the case of an emergency at the landfill	benefit will extend to all residents served by the local fire company that receives funds from the RRLF

<sup>3</sup> All benefits represent conditions that will be realized if and only if the proposed Resource Recovery Landfill is approved.