2013 Legislature

TPS Report 60130v1

Agency: Commerce, Community and Economic Development

Grants to Municipalities (AS 37.05.315)

Grant Recipient: Dillingham

Federal Tax ID: 92-0030674

Project Title:

Project Type: Other

Dillingham - Landfill Regulatory Compliance Improvements

State Funding Requested: $4,348,436

One-Time Need

House District: 36 / R

Brief Project Description:

The project would be to plan and implement necessary upgrades to make landfill operations sustainable and compliant with state and federal regulations for waste disposal and monitoring of air and groundwater.

Funding Plan:

Total Project Cost:	$4,510,000
Funding Already Secured:	($161,564)
FY2014 State Funding Request:	($4,348,436)
Project Deficit:	$0

Funding Details:

2012 Grant Extension of ADEC 28303 allowed for planning $124,280

2012 Coastal Impact Assistance Grant to UAF BB Campus $42,447

Detailed Project Description and Justification:

The project would be to plan and implement necessary upgrades to make landfill operations sustainable and compliant with state and federal regulations for waste disposal and monitoring of air and groundwater.

The City is revising its master plan to bring the landfill into compliance with its ADEC permit by 2014. The permit was last issued June 1, 2009. For the last several years it has operated under a provisional open burning permit. The state will rescind that privilege in 2014 and the City must be ready to properly dispose of municipal garbage by then or lose its permit to operate.

The plan will include necessary upgrades to reduce and dispose of the municipal waste stream through environmentally sound methods. Options under consideration include waste to energy processing by a private operator, baling and burying with limited sorting, or sorting and burying, composting, recycling, and community education to sort garbage and recycle.

Urgently needed actions are: 1) a new plan of operations that takes into consideration: 2) a public education campaign, 3) a new landfill cell; 4) a baler; 5) equipment for composting and sorting; and 6) the appropriate facilities to improve the operations of sorting, recycling, and burying garbage.

Project Timeline:

2013-2014: Planning, Design, education campaign, begin composting project, purchase new equipment, construction of recycling facility and new landfill cell if necessary.

Contact Name: Adam Berg
Contact Number: 465-4451

For use by Co-chair Staff Only:

$1,900,000 Approved

2:01 PM 5/9/2013

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

City of Dillingham

Grant Recipient Contact Information:

Name:	Jody Seitz
Title:	Planning Director
Address:	141 Main Street, P.O. Box 889
	Dillingham, Alaska 99576
Phone Number:	(907)842-3785
Email:	planner@dillinghamak.us

Has this project been through a public review process at the local level and is it a community priority? [X] Yes [ ] No

Contact Name: Adam Berg
Contact Number: 465-4451

For use by Co-chair Staff Only:

2:01 PM 5/9/2013

CITY OF DILLINGHAM, ALASKA

RESOLUTION NO. 2012-55

A RESOLUTION OF THE DILLINGHAM CITY COUNCIL APPROVING THE 2013-2018 CAPITAL IMPROVEMENT PLAN AND ADOPTING THE FY2014 LEGISLATIVE PRIORITIES LIST

WHEREAS, Dillingham Municipal Code 2.68.160 requires that the Dillingham Planning Commission prepare and recommend to the City Council an annual update of a six year capital improvements plan; and

WHEREAS, staff and the public prepared proposals from August 1 to 24, 2012; and

WHEREAS, there have been multiple public workshops with the Project Review Committee, and two public hearings, on September 18, before the Planning Commission, and October 4, before the City Council; and

WHEREAS, it is the intent of the Dillingham City Council to provide the Governor, the State Legislature, State agencies, the Alaska Congressional Delegation, and other potential funding sources with adequate information regarding the City's capital project funding needs;

NOW, THEREFORE, BE IT RESOLVED that the "City of Dillingham 2013-2018 Capital Improvement Plan" is hereby adopted as the official six year capital improvement plan for the City of Dillingham;

BE IT FURTHER RESOLVED that:

1. The following capital improvement projects and project funding needs are identified as priorities for the FY2014 State Legislative Request:

1	Wastewater Treatment Plant Upgrades	$	10,920,000
2	Landfill Regulatory Compliance Improvements for 2014 Permit	$	4,348,436
3	Utilities and Storm Sewer Upgrades for Downtown Streets Project	$	3,000,000
4	Nerka Road Rehabilitation	$	2,500,000
5	Public Safety Building(s)	$	10,450,000
6	Wastewater Collection System Upgrades	$	1,500,000
7	E911 System Improvements	$	200,000
8	Harbor Revetments and Breakwater/Emergency Bank Stabilization	$	7,500,000
9	Downtown Sewer Expansion (Old Airport Sewer Line)	$	804,000
10	Seward and D Street Rehabilitation with Downtown Street Project	$	675,000
11	Library Ramps, Other Repairs	$	100,000
12	Water/Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)	$	1,816,314
13	Harbor Bulkheads	$	8,184,000
14	Snag Point Bulkhead Protection	$	1,200,000
15	Heavy Equipment and Vehicle Replacement Schedule	$	42,000

2. The projects for the FY 2014 Federal Legislative Request will be selected from this list.

3. The City Manager is hereby instructed to advise appropriate State and Federal representatives and personnel of the City's FY2014 capital project priorities and take appropriate steps to provide necessary background information.

PASSED AND ADOPTED by the Dillingham City Council on October 4, 2012.

SEAL:

Alice Ruby, Mayor

ATTEST:

Janice Williams, City Clerk

City of Dillingham Information Memorandum No. R2012-55

Subject: A resolution of the Dillingham City Council adopting the six year capital improvements program and the FY 2014 Legislative Request

Agenda of: October 4, 2012

City Council Action:

Manager: Recommend approval.

City Manager: Rose Loera

Rose Loera, City Manager

Route To:	Department / Individual	Initials	Remarks
X	Planning Director / Jody Seitz	-JS	
X	Public Works Director/Malcolm Brown	MB	
X	City Clerk / Janice Williams	JW	

Fiscal Note: Yes _____ No ___X___ Funds Available: Yes _____ No ____

Other Attachment(s):

- PCR 2012-18 Recommending the 2013-2018 Six Year Capital Improvement Program FY 2014 CIP List

Summary Statement.

The attached six year capital improvements plan is the City of Dillingham's statement of priorities for the next six years at this point in time. The six year program is updated annually.

RESOLUTION 2012-18

A RESOLUTION OF THE DILLINGHAM PLANNING COMMISSION

Recommending the Six Year Capital Improvement Program 2013-2018 to the Dillingham City Council

WHEREAS, the Dillingham Municipal Code (2.68.160 (A)5) requires that the Planning Commission conduct an annual update of a six year capital improvement projects plan; and

WHEREAS, this is the first time that the City has prepared a six year capital improvements plan; and

WHEREAS, the Six Year Capital Improvement Program presented here is thoroughly vetted, being the result of a public process that included 30 days notice to solicit public and staff nominations, two ads in the Bristol Bay Times, posters in four locations downtown, regular announcements on KDLG, three Project Review Committee meetings, two of which were open to the public and staff; and a public workshop with the Planning Commission; and

WHEREAS, the Planning Commission held a public hearing on September 18 as part of its regular meeting; and

WHEREAS, the attached Six Year Capital Improvement Program represents the best estimate of the City's capital needs at this time; and

WHEREAS, this Six Year Program will provide the basis for this year's legislative requests as well as future updates of the City's capital needs; and

WHEREAS, the Planning Commission has carefully reviewed the proposed Six Year Capital Improvement Program for 2013-2018;

THEREFORE, BE IT RESOLVED that the Planning Commission recommends the Six Year Capital Improvements Program for 2013-2018 to the City of Dillingham City Council for approval.

APPROVED AND ADOPTED THIS 18th DAY OF September, 2012.

Paul Liedberg, Presiding Officer

Jody Seitz, Commission Clerk

City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
A. EQUIPMENT REPLACEMENT										542,000
F350 Flatbed Truck		42,000	1		X					
950 H Cat Loader		325,000	2			X				
580 Super Extendahoe Backhoe		95,000	2				X			
B7G 3500 Sierra Flatbed Replacement		40,000	3					X		
Low Boy Trailer - Used		40,000	3						X	
B. EROSION/PORT/HARBOR										16,999,000
Harbor Revetments and Breatkwater/Emergency Bank Stabilization*	USACOE	7,525,000	1	X	X	X	X	X		
East and South Interior Harbor Bulkheads		8,184,000	2			X	X	X	X	
Harbor Float Replacement		90,000	1		X		X		X	
Snag Point Bulkhead Protection		1,200,000	1		X	X	X	X	X	
C. FACILITIES										14,179,173
Animal Shelter (new construction)*		420,000	2				X			
Cemeteries		125,000	2			X	X	X		
City Hall Improvements		60,000	2			X	X			
E911 system improvements		200,000	1	X	X	X				
Hockey Rink Planning and Design		47,500	1		X					
Library Ramps and other repairs		100,000	1	X	X					
Fire Hall and Public Safety Building(s)		10,450,000	1	X	X	X	X			
Public Works Compound Fence		187,000	3					X		
Public Works Compound Storage Building		300,000	2			X				
Senior Center Upgrades		1,829,673	1		X	X	X	X	X	
Territorial School Renovation		460,000	2			X	X	X	X	

City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
* Additional options such as purchasing or leasing are being explored.										
D. LANDFILL										4,348,436
LandfillUpgrades	161,564	4,348,436	1	X	X	X				
E. ROADS										3,175,000
Downtown Streets (ADOT 57180)	fully funded		1	X	X	X				
Kanakanak Beach Parking Lot with CTC	city land		1	X	X					
Nerka Road Rehabilitation	1,000,000	2,500,000	1	X	X					
Seward and D Street Rehabilitation with Downtown Street Project		675,000	2			X	X			
F. WATER/SEWER										25,115,718
Downtown Sewer Expansion (Old Airport Sewer Line)		804,000	1		X					
Harbor Water and Sewer Line		1,062,600	3					X		
Utilities and Storm Sewer Upgrades		3,000,000	1	X	X	X				
Wastewater Collection System Upgrades	200,000	1,500,000	1	X	X	X	X	X	X	
Wastewater Treatment Plant Upgrades	2,280,000	10,920,000	1	X	X	X				
Water and Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)	5,503,983	7,829,118	1		X	X	X	X	X	
GRAND TOTAL	**9,145,547**	**64,359,327**								
G. PROPOSED FACILITIES (more than 6 years out)										18,368,752
Fish Processing Plant		7,924,000								
Harvey Samuelsen Community Cultural Center		10,444,752	2009 Total Project Budget from 5/15/09							
H. PROPOSED SERVICES										
1 Coordinated Transportation plan										

City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
* USACOE Emergency Bank Stabilization Project at Harbor Entrance to protect dredge spoils facility and interior harbor										
Table includes City of Dillingham projects and those funded primarily by another entity but which require City matching funds.										
List does not include projects undertaken and fully funded by another entity.										

FY14 CIP PROJECTS BY SCORE

1	Wastewater Treatment Plant Upgrades	30
2	LandfillUpgrades	26
3	Utilities and Storm Sewer Upgrades for Downtown Streets Project	12
4	Nerka Road Rehabilitation	23
5	Public Safety Building(s)	22
6	Wastewater Collection System Upgrades	21
7	E911 system improvements	20
8	Emergency Bank Stabilization	20
9	Downtown Sewer Expansion (Old Airport Sewer Line)	19
10	Seward and D Street Rehabilitation with Downtown Street Project	17
11	Territorial School Renovation	16
12	Library Ramps, Other Repairs	16
13	Water/Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)	16
14	Kanakanak Road Reconstruction Harbor Road to Squaw Creek	15
15	Harbor Bulkheads	14
16	Snag Point Bulkhead Protection	14
17	Heavy Equipment and Vehicle Replacement Schedule	12
18	Senior Center Upgrades	8
19	Fish Processing Plant	8
20	Public Works Improvements- Heated building	8
21	Harvey Samuelsen Community Cultural Center	8
22	City Hall Improvements - carpets	7
23	Water Loop by Nushagak and Hydrants	6
24	Hockey Rink	6
25	Provide animal shelter services	5
26	Cemeteries	2
27	Composting	2

FY13 CIP PROJECT EVALUATION SHEET

Project	ESTIMATED COST	DESCRIPTION	Project is clearly a responsibility of the city	PRIORITY: Existing Threat to Health and Safety	PRIORITY: Notice of violation	PRIORITY: Formal Warning	PRIORITY: Imminent Mechanical System or Structural Failure	RANKING LOWEST 1-10 HIGHEST: Necessary to maintian essential services	Proposed on existing CIP	a phase of an ongoing CIP project	preliminary investment but not yet a phase	Partial funding secure	Project will result in substantial operational savings for the DCSD	Project will generate substantial revenue for the DCSD	Project Needed within next 2 years - 2 pts	needed in 3-5 years	TOTAL POINTS	inventory	strategic planning	maintenance	not a DCSD responsibility
High School Gymnasium	140,000	New Bleachers	Y				Y	10	9	5					10		34				
Middle School Gynmasium	4,750	Upgrade ceiling vents	Y					8		5					8		21				
Fuel Tank	20,000	Replace misc damaged concrete flat work, install Bollard.	Y			Y			5	5					10		20				
Replace Pumps and Valves/rework exterior walls	82,000	Re-work exterior walls rooms 133, 134,135 Replace Pumps and valves 2 each 2 HP base pumps with controls and piping in 143A and 160	Y				Y	9	7	5			8		9		38				
Arctic Hallway	100,000	Install foam insulation to depth of four ft below grade and covered by a protective metal shield and backfilled	Y							5					10		15				
School wide Insulation	56,500	Insulate I Beams in Science Wing and upgrade insulation through DMHS including rm C207 & C208	Y						10	5			10		9		34				
Shop Area	50,000	Replace ACM Sheetrock & insulate ext walls.	Y						8	5			10		10		33				
Mechanical Energy Effeciency Upgrades	111,000	Mechanical Upgrades both Schools	Y					8		5			10		8		31				
Electrical and Lighting Upgrades	210,000	Shop, Exterior Bldg, art room, map area and all not previously replaced classroom wall wash lighing. Install motion detectors in all classrooms, closet and storage areas	Y						6	5			8		10		29				
Relighting Project	70,000	All lighting Upgraded not completed in the renovatioin project	Y							5			8		9		22				
Special Ed Functional Living Room	1.500.00	Add baseboard heat loop	Y					4		5						9	18				
Auto, Metal Wood Shop Classrooms	250,000	Lighting, electrical upgrade and asbestos abatement	Y							5					10		15				
Home Economics Room Upgrade	30,000	New cabinet doors, drawer fronts & refinishing, new dishwasher, microwave oven	Y					2		5					8		15				
Auto, Metal, Wood Shop Classrooms	5,000	Replace hand washing sinks 2 ea in shop areas.	Y							5					8		13				
Underground Storage Tank	100,000	Law requires removal.	Y						4	5					4		13				
Middle/High School Metal Roof	1,100,000	Replace remaining metal room- approx. 62,000 square feet	Y							5					7		12				
Weight Room	25,000	Upgrade to include new wall surfacing material and lighting	Y							5					7		12				
Parking Lot	750,000	Pave entire parking lot	Y						3	5						4	12				
HS Wrestling Program	85,000	two hoist hun wrestling mats and mechanical operators	Y							5						6	11				

City of Dillingham
Capital Improvement Plan
2013-2018

The north bulkhead extension was completed in 2010 with stimulus funding from the Economic Development Administration and a grant from the state legislature.

City of Dillingham
P.O. Box 889
Dillingham, Alaska 99576
907-842-5211

Meeting Date: October 4, 2012

CITY OF DILLINGHAM, ALASKA

RESOLUTION NO. 2012-55

A RESOLUTION OF THE DILLINGHAM CITY COUNCIL APPROVING THE 2013-2018 CAPITAL IMPROVEMENT PLAN AND ADOPTING THE FY2014 LEGISLATIVE PRIORITIES LIST

WHEREAS, Dillingham Municipal Code 2.68.160 requires that the Dillingham Planning Commission prepare and recommend to the City Council an annual update of a six year capital improvements plan; and

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WHEREAS, it is the intent of the Dillingham City Council to provide the Governor, the State Legislature, State agencies, the Alaska Congressional Delegation, and other potential funding sources with adequate information regarding the City's capital project funding needs;

NOW, THEREFORE, BE IT RESOLVED that the "City of Dillingham 2013-2018 Capital Improvement Plan" is hereby adopted as the official six year capital improvement plan for the City of Dillingham;

BE IT FURTHER RESOLVED that:

1. The following capital improvement projects and project funding needs are identified as priorities for the FY2014 State Legislative Request:

1	Wastewater Treatment Plant Upgrades	$	10,920,000
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4	Nerka Road Rehabilitation	$	2,500,000
5	Public Safety Building(s)	$	10,450,000
6	Wastewater Collection System Upgrades	$	1,500,000
7	E911 System Improvements	$	200,000
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9	Downtown Sewer Expansion (Old Airport Sewer Line)	$	804,000
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15	Heavy Equipment and Vehicle Replacement Schedule	$	42,000

2. The projects for the FY 2014 Federal Legislative Request will be selected from this list.

3. The City Manager is hereby instructed to advise appropriate State and Federal representatives and personnel of the City's FY2014 capital project priorities and take appropriate steps to provide necessary background information.

PASSED AND ADOPTED by the Dillingham City Council on October 4, 2012.

SEAL:

Alice Ruby, Mayor

ATTEST:

Janice Williams, City Clerk

Projects Funded in 2012

With gratitude we note that funding was acquired for the following projects in 2012:

Snag Point Force Main Relocation- (Construction completed in 2012)

City Library Roof Replacement (Request for Proposals to be issued in February 2013)

Wastewater Treatment Plant Upgrades – (Contract awarded in November 2012 for First Phase of Design Build)

Table of Contents

Introduction: The Capital Improvement Program

A capital improvement plan (CIP) is a long term guide for capital project expenditures. The CIP includes a list of desired community projects that integrates timing of these project expenditures with the City's annual budget. The Dillingham CIP also assigns priorities to projects based on their urgency and presents a target construction schedule.

The Dillingham Capital Improvements Plan is designed to:

- anticipate community needs in advance, before they become critical;
- rank capital improvements with funding efforts directed first to those most urgently needed;
- plan projects which have sustainable maintenance and operations costs;
- provide written descriptions, justifications and best cost estimates for potential funders; and,
- provide the basis for capital project appropriations as part of the City's annual budget.

Capital Projects warrant special attention in the municipal budget process. Normally public funds are not expended if the project is not listed in the CIP. A capital expenditure should be a major, nonrecurring budget item that results in a fixed asset with an anticipated life of at least three years. Projects eligible for inclusion in the City of Dillingham CIP cost at least $25,000 and have an anticipated life of at least 3 years.

Capital Projects proposed by other non-City organizations are included in this packet to demonstrate City support for them even though the City is unable to provide funding for them.

The number of years over which capital projects are scheduled is called the capital programming period. The City of Dillingham's Capital programming period coincides with the state's, which is a six year period. The City of Dillingham CIP is updated annually.

Development of the Capital Improvement Plan is a public process. The 2013-2018 Dillingham CIP process began in August of 2012 with a call for public and City staff project nominations in the Bristol Bay Times, on KDLG public radio, and through posters in public places. A Project Review Team was established which held public workshops to consider nominations. Evaluation criteria were reviewed and used to evaluated projects systematically. The Planning Commission and City Council each held public hearings to consider the six year plan. The Planning Commission recommended the six year plan at its September 18, 2012, meeting to the City Council, which approved it on October 4, 2012.

City of Dillingham priorities are determined after each project has been evaluated on the following criteria:

- urgency, whether the project is needed within 2 years or 3-5 years;
- whether it corrects a problem that poses a risk to human health and safety;

- whether there are regulatory violations;
- whether there are potential system failures;
- whether it reduces costs of operation and maintenance;
- whether there is funding or funding partners; and,
- the fiscal impact to the City.

The Project Review Committee also consider past and present public support for the projects as well as consistency with the City's Comprehensive Plan goals and objectives.

Once the CIP is finalized, the City Manager, Staff and City Council adopt a subset of projects which will be the focus of efforts to obtain state and federal funding in the coming year.

City of Dillingham
Legislative Requests for Fiscal Year 2014

1. Wastewater Treatment Plant Upgrades
2. Landfill Regulatory Compliance Improvements for 2014 Permit
3. Utilities and Storm Sewer Upgrades for ADOT Downtown Streets Project
4. Nerka Road Rehabilitation
5. Public Safety Building(s)
6. Wastewater Collection System Upgrades
7. E911 System Improvements
8. Harbor Revetments and Breakwater/Emergency Bank Stabilization
9. Downtown Sewer Expansion (Old Airport Sewer Line)
10. Seward and D Street Rehabilitation with Downtown Streets Project
11. Library Ramps, Other Repairs (Energy Efficiency Improvements)
12. Water/Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)
13. Harbor Bulkheads
14. Snag Point Bulkhead Protection
15. Heavy Equipment and Vehicle Replacement Schedule

Contact City Manager Rose Loera at 842-5211 or Mayor Alice Ruby 842-5272

Wastewater Treatment Plant Upgrades

State Request: $3,090,000

Project Description

The project is to evaluate current site conditions, determine needed site upgrades to meet ADEC permit limits, and construction and installation of improvements to fulfill the basic needs of the facility. Upgrades could potentially include improvements to the influent debris removal, sludge removal, wastewater temperature, additional high efficiency aeration blowers, lagoon heat retention, secondary sludge removal, de-nitrification process, disinfection system, Supervisory Control and Data Acquisition (SCADA) Controls, and energy extraction. The desired outcome is a modern biological treatment process, with energy recovery to assist in powering and heating the treatment plant operations. The funding request for the project is for phased construction.

Figure 1 Wastewater Treatment Lagoon

The treatment facility was built in 1987 without septage handling facilities, and inadequately sized and permitted to handle the seasonal influx of population much less the growth in the community's use of septic systems and septage disposal at the lagoon. The facility permit expired 7-21-2009 due to chronic high levels of fecal coliform, (BOD) Biochemical Oxygen Demand, and (TSS) total suspended solids in the effluent. ADEC has not issued a new permit.

The effluent leaves the outfall just beyond the beach at Snag Point, where residents set nets to catch salmon for home use. There has been no sludge removal over the last 20 years and there is no disinfection of the sewage in the lagoon, thus the effluent frequently exceeds permitted levels of toxins at volumes that also exceed permitted levels and is a health risk for humans and animals.

Several of the non-compliance items require significant modifications to the wastewater treatment plant and wastewater collection system. The collection system upgrades will be corrected in a separate request.

Schedule and Cost: Estimated Total Cost $ 13,200,000 Priority 1

2013: Design/Build $ 2,280,000 2014-2015: Construction $10,920,000

Landfill Regulatory Compliance Improvements

State Request: $4,348,436

Project Description

The project would be to plan and implement necessary upgrades to make landfill operations sustainable and compliant with state and federal regulations for waste disposal and monitoring of air and groundwater.

Figure 2 Dillingham Landfill burnbox

The City is revising its master plan to bring the landfill into compliance with its ADEC permit by 2014. For the last several years it has operated under a provisional open burning permit. The state will rescind that privilege in 2014 and the City must be ready to properly dispose of municipal garbage by then or lose its permit to operate.

The plan will include necessary upgrades to reduce and dispose of the municipal waste stream through environmentally sound methods. Options under consideration include waste to energy processing by a private operator, baling and burying with limited sorting, or sorting and burying, composting, recycling, and community education to sort garbage and recycle.

Urgently needed actions are: 1) a new plan of operations that takes into consideration: 2) a public education campaign, 3) a new landfill cell; 4) a baler; 5) equipment for composting and sorting; and 6) the appropriate facilities to improve the operations of sorting, recycling, and burying garbage.

Schedule and Cost: Funding Need: 4,348,436 Priority 1

2013: Planning$177,542 2014: Construction $2,174,218 2015: Construction $2,174,218

Utilities & Storm Sewer Upgrades

State Request $3,000,000

Project Description:

The project would assess and upgrade utilities within the area of State Road Project 57180 "Downtown Streets Rehabilitation" as well as two adjacent side streets, Seward and D Street. The assessment and reconstruction costs would be to upgrade street lighting, the storm system, and water and sewer systems within and immediately adjacent to the project area. The 1500 foot storm drain in the project area was not placed where it was designed to be placed. At minimum, the frames and grates of the storm drain manholes need replacing. Although downtown Dillingham is not within the defined 100 year flood plain, the storm drain system is close enough to the flood zone that it could be infiltrated by saltwater. The current storm drain is piped directly into the Nushagak River via a drain on the bulkhead, without treatment. The water and sewer systems were reconstructed with the 1984 road construction. Lots on D Street are not well served by sewer. There is no sewer main running the length of D Street. The costs for the storm drain, sewer and water service improvements were not included in the cost of the Downtown Streets project.

Lighting in the project area is opportunistic and lights are spaced from 150' to 500' apart. Limited funds exist within the ADOT project funds to improve existing lighting but not to add lights.

The City has expressed interest in putting utilities underground as part of the effort to redefine the downtown area. Such work is outside the scope of the Downtown Streets project.

Based on the assessment, the project would plan, design, and construct needed improvements to each of these systems prior to or concurrently with the State Transportation Department's Downtown Streets Rehabilitation Project (Project number 57180) scheduled for construction in 2015.

Schedule and Cost: Priority 1

2014: Design/Construction $3,000,000

Nerka Road Rehabilitation

State Request: $2,500,000

Project Description

The project is to rehabilitate and pave 8,540 feet of road and contruct 600 feet of new roads in the Nerka Subdivision. Nerka Subdivision is a family neighborhood with many children and pedestrians. The roads lie on rolling terrain, serve 15 platted lots and provide access to additional roads in the Nerka Subdivision which provide access to hunting and gathering areas. There are no sidewalks or crosswalks for non-motorized travel.

Figure 3 Nerka Road leading into subdivision

These City roads are only 20 feet wide, with the surface material completely worn away, rutted and potholed. Drainage ditches are cut into the edge of the road and two 10 foot wide culverts are installed at the bottom of the hill to pass water from Squaw creek.

Figure 4 Nerka Loop Road

The Curyung Tribal Council has this project as their number one priority for their BIA IRR Roads Inventory. The route has been identified as needing improvements to the drainage, foundation, and base to be able to upgrade to a paved surface. Overhead and underground utility lines are located along the road way. The route is classified as a Rural Local Road and connects Emperor Way North and the Aleknagik Lake Road.

Schedule and Cost: Total Cost: $3,500,000 Priority 1

2013-14: Construction $2.5 million

Existing Funds: $1,000,000 BIA/IRR program Funding Need: $2,500,000

Public Safety Buildings

State Request: $1,045,000

Project Description

The request would provide funding for design to replace Dillingham's Downtown Public Safety and Fire Buildings downtown. The project would prepare 95% design, acquire the appropriate real estate, secure permits and construct the facilities.

Figure 5 Dillingham Fire Hall bays are too short for new equipment.

Dillingham is the hub community of the Dillingham Census Area, 9 communities in the Unorganized Borough. These facilities provide E911 and Dispatch 24/7 for the census area. Dillingham Public Safety provides these services for State Troopers by contract for 16 hours each weekday, plus all weekend. The Dillingham jail is also under contract to the state, one of 15 State Community Jails in Alaska.. Half of the inmates at the Dillingham jail on any given day are state prisoners.

Both of the buildings have numerous structural and system issues which compromise the functions for which they are dedicated. Neither building is compliant with the Americans with Disabilities Act or safe for workers or inmates. New equipment no longer fits through the bays of the downtown Fire Hall. There is no fire detection and suppression system in the building. It is located in a flood zone. There is not enough room to work and safely load the trucks inside the fire hall or conduct training with the trucks inside.

Figure 6 Public Safety Building

There were several major system failures at the Public Safety Building in the past year which have since been rectified. A pipe burst in the sprinkler system which flooded the lower floor and caused electrical damage as well as damage to the flooring and carpets; a power surge damaged the electrical system throughout the building and the E911 console. The jail is too small to handle the number of prisoners it receives every month and is not adequate to provide proper separation of juveniles from adults, males from females. The electrical system is outdated and overloaded. The project will create modern, functional and sustainable facilities.

Total Cost: $10,045,000 Priority 1

Schedule: 2013: $135,901 Planning 2015: $1,045,000 Design 2016: $9,269,099 Construction

Wastewater Collection System Upgrades

State Request: $ 1,500,000

Project Description:

The project is a complete renovation of all seven City lift stations, to remove life and safety risks for operators, and using green technology where possible, increase operational efficiency and effectiveness. Currently lift stations are unsafe to operate. Electrical panels are not isolated from potential methane gas release. Public Works employees frequently use the pumper truck to move sewage from failing lift stations to the lagoon. Two of the lift stations, including the one featured here, also have penetrations of the wetwell, which causes sewage to infiltrate into the groundwater.

Figure 7 Smalls Lift Station

Dillingham's wastewater collection system dates back to 1965. Additionally, the existing wastewater treatment plant is completely inadequate to handle septage as it is being delivered. This problem is exacerbated by the fact that the population of Dillingham grows 2 to 3 times in the summer; and, that approximately two thirds of Dillingham households have on-site wells and septic systems. In addition the lagoon outfall line pours chronically over limit effluent into the confluence of the Wood and Nushagak Rivers, two world class salmon streams. The outfall lies exposed on the same beach that subsistence fishers use to set nets for their home pack of salmon, jeopardizing the health of humans and animals alike. In winter the uncovered lagoons freeze, and little if any treatment occurs on the raw sewage.

Figure 8 Lift Station with multiple mechanical, structural and electrical defects

The whole wastewater system must be addressed in order to bring it up to permitting standards. It will require upgrades to all 7 lift stations, a septage receiving station, replacement of some section of piping, and electrical upgrades to manage the proper flow of wastewater to the treatment facility. The wastewater treatment plant upgrades will be corrected under a separate grant.

Schedule and Cost: Priority 1

2013: $1.5 million for construction

E911 System Improvements

State Request: $200,000

Project Description:

Provide a backup dispatch E911 consol and new radios at the Lake Road Fire Station. The current backup dispatch /emergency operations center at the Lake Road Fire Station cannot accept the transfer of E 9-1-1 traffic and is not fully compatible with current standard practices and protocols. It is incompatible with the community warning siren system and requires a "work around" to be used with the current backup console.

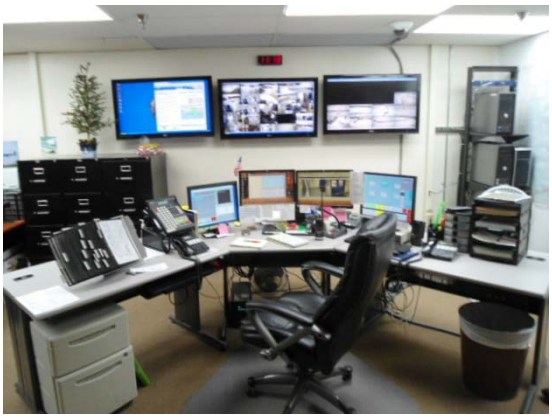


Figure 9 Dillingham Police Dispatch Center

The main E 9-1-1 console, just recently replaced due to an electrical surge, is located downtown in the Public Safety Building. This is an old building constructed approximately 35 years ago for an entirely different purpose. It has many mechanical, structural and electrical system inadequacies. It wasn't constructed to handle some of the existing uses and is located on the edge of the 100 year flood plain. It has experienced flooding and damaging electrical surging. In the event of a major community, state, or national emergency; hazardous material or fire event in the townsite area, failure of this building due to flood, fire or structural failure would compromise most radio service and all Enhanced 9-1-1 service or render it entirely unavailable.

Project Schedule: Priority: 1

2013: $200,000 for purchase and installation

Harbor Revetments and Breakwater

(Emergency Bank Stabilization) State Request: $ 7,500,000

Project Description:

This **construction ready** U.S. Army Corps of Engineers (USACOE) project will stop the erosion at the mouth and outside wall of the harbor with two 900 ft. rock revetments and a breakwater. Currently waves entering the harbor erode the east bank of the harbor. Waves also impact the west side of the mouth of the harbor and the south bank of a dredge spoils facility on the shoreline east of the harbor.

Figure 10 West Side Revetment and Breakwater

The project will stabilize the harbor banks for further economic development, as well as prevent erosion of the dredge spoils facility and the harbor banks below the Bristol Alliance oil tank farm which serves many villages in northern Bristol Bay.

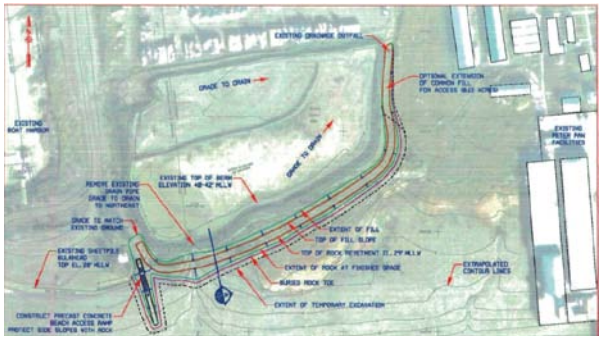


Figure 11. East Side Rock Revetment

The harbor is a base of operations for the largest remaining wild salmon fishery on earth. It hosts from 500 to 600 boats in the summer and is a springboard for global transportation networks. It is the only harbor in Bristol Bay, a base for job creation and infrastructure serving the fishing industry, an important venue for secondary processing, a channel for distribution of products derived from the fisheries, as well as a base for services and markets related to the Bristol Bay wild salmon fisheries.

The request is for funds to match federal dollars. The US Army Corps of Engineers wishes the community to provide 35% match for its project. There is a need for a new agreement with the US Army Corps of Engineers as well as a new level of authorization for spending on erosion at the Dillingham Harbor. The City is working with its elected representatives to try to reverse this change in matching funds, or reduce it.

Project Schedule and Cost: Total Project Cost: $21,500,000 Priority 1

2013: Funding Need: $7.5 million Match for Construction

Downtown Sewer Expansion

State Request: $804,000

Project Description:

The project would be to expand the sewer system to include lots on the north side of the old airport. Phase 4.1 of the 2003 Water and Sewer Master Plan, by Bristol Environmental and Engineering Services Corp. calls for installing 13 manholes, 3,700 linear feet of 8" pipe at 8 ft. deep, and 370 linear feet of force main with 1 lift station. Gravity lines would extend along Central, First Avenue East, and Lil Larry Road (Tower Road). The line along Lil Larry Road would tie into the gravity main at the intersection of Lil Larry Road and the lagoon access road. Gravity lines would also run between the Wastewater Treatment Plant and E Street, and an undeveloped alley between Second Avenue West and First Avenue East. A small force main would be installed from the north end of First Avenue East to the gravity line at Lil' Larry Road.

The project would serve approximately 25 residences in the area as well as the State Courthouse, the City Public Works Department, and the SAFE facility which houses victims of domestic violence.

The project would prevent health issues arising from the failure of septic systems in the area north of the old airport.

Project Schedule and Cost: Priority 1

2014 Design & Construction $804,000

Contact City Manager Rose Loera at 842-5211 or Mayor Alice Ruby 842-5272

Seward and D St. Rehabilitation

State Request $675,000

Project Description

Reconstruct Seward Street and D Street from the D Street and Seward Street intersection to E Street; and from the D Street and Second Street intersection up D Street to the intersection with Lil Larry Road. These streets are in dire need of repair. At the intersection of Second Street West and D Street, both Second and D Streets are sinking. Public Works has patched these streets to the point that they are now patching the patches.

Repair sidewalks on Seward Street, construct sidewalks along D street, connecting to the ADOT Downtown Streets project at the Bank/Post Office/Second Avenue West intersection and connecting to the Lil' Larry Road intersection. Provide crosswalks at intersections as well as proper signage. Make sidewalks accessible and ADA compliant.

Figure 12 D Street between Senior Center and Post Office

Project Schedule:

2015: Design/Construction $675,000 coordinating with the ADOT Downtown Streets Project

Library Ramps and Other Repairs

State Request: $100,000

Project Description:

The project is to make the Library ADA compliant and more energy efficient. It will replace existing ramps, railing and stairs as well as all windows and doors with modern energy efficient models. Replace boiler. Replacing the ramp will abate structural safety violations and will meet Americans with Disabilities standards. Replacing the boiler, windows and doors wills save on heating expenses.

The City would like to construct these improvements in summer 2013 to coincide with a project to replace the roof to make the most efficient use of labor and funding.

Project Schedule and Cost: Priority 1

2013-2014: Design/Build $100,000

Water/Sewer Master Plan Phases 1.3 and 1.4

State Request: $ 1,816,314

Project Description:

The City seeks funding to match $5.5 million in Alaska Department o Environmental Conservation Municipal Matching Grants to continue this project.

The project is to identify a new water source, acquire real estate, plan, design, secure permits and develop the new water source. The project would provide drinking water to areas not currently served by the existing facility and sufficient flows to allow installation of additional hydrants downtown.

The City's water source is very limited and not sufficient to provide adequate fire flows or quick recovery time in the event of a major fire downtown. A significant part of the downtown area has no water lines. Kenny Wren Road lacks hydrants and water lines. It is the location of the electric utility and its tank farm, the elementary school and several state office buildings. The project will allow the city to place fire hydrants in the core downtown area, thus reducing the need to transport water in huge tankers around town. It will allow the city to hook up more residents to city water and to be able to charge for water service. It will reduce insurance costs by improving the community's insurance (ISO) fire rating.

City facilities and the community are at greater risk than necessary by not having adequate water lines and fire hydrants in the area of the Nushagak Cooperative and the Dillingham City Schools Elementary School. This is particularly problematic because the road that separates the two is a substandard road. The harbor is also at great risk due to the fact that it is a half tide harbor and boats are stuck tied up to each other on mud when the tide goes out.

In sum, this project will provide a critical piece of disaster and emergency response infrastructure, mitigate against hazards such as wildfire, chemical release, and urban conflagration, and reduce risk of contamination of city aquifers due to use of wells and septic systems. It will provide more emergency response capacity along Kenny Wren Road where there are state offices, Nushagak Cooperative Tank Farm and an elementary school in close proximity.

Project Schedule and Cost: Match Needed: 1.816,000 Priority 1

2014: Locate Water Source, Plan, Design Facilities $1,816,000

2015-2016: Construct $4,060,000

2017-18: Construction to tie into system $ 5,220,000

Harbor Bulkheads

State Request: $ 810,000

Project Description:

Construct two sheet pile bulkheads around the east and south side of the Dillingham harbor to protect it from erosion and provide a secure place for infrastructure and commercial activity. The addition of shoreline protection as well as water, sewer, electrical upgrades, and a restroom at the south end of the harbor will add to the usability and marketability of the harbor. It will allow the City to reclaim property lost to erosion, as well as upgrade its ramps and its antiquated float system to one that rises and falls with the tides.

Figure 14 Erosion of East bank in harbor exposes utilities

Figure 15 Port Director Jean Barrett measures loss of 10 feet of shoreline from September 2012 storms

The upgrades to infrastructure will help the City offset operational and maintenance costs by bringing in more revenue from leasing lots in the harbor to fishing related businesses.

Project Schedule and Costs:
Estimated Total Cost: $8,184,000

2015: Planning and Design: $820,000
2016-2018: Construction

Snag Point Bulkhead Protection

State Request: $ 1,200,000

Project Description:

The 1600 foot long Snag Point bulkhead has experienced accelerated erosion in recent years and had lost as much as 10 feet of beach cover in some places. Each year for the next 6 years the City wants to install about 1000 cubic yards of rock in front of the bulkhead to stabilize and protect it.

Figure 16 Snag Point Bulkhead

This project is urgent. The most recent inspection by the U.S. Army Corps of Engineers in September of 2012 indicates that the bulkhead unsafe exposure ranges from .2 to .6 feet below safe levels. Approximately 10 homes are located on the bluff above the bulkhead. Another line of homes lies just above those.

Figure 17 Snag Point Bulkhead Shoreline

In 2011, the City of Dillingham installed approximately $500,000 of riprap at the most exposed places along the bulkhead. In 2012 the City covered the exposed sewer outfall with riprap and plans to continue "nourishing the beach" for the next several years at approximately $200,000 a year.

Project Schedule and Cost: Priority 1

2014-2018: Install riprap, $200,000 per year for a Total Estimated cost of $1,200,000.

Heavy Equipment and Vehicle Replacement Schedule

State Request: $42,000

Project Description:

The City is in dire need of upgrading its equipment fleet.

In 2014 the goal is to purchase a F350 Flatbed Truck. The existing 1990 Ford F350 4WD is 22 years old with 54,655 miles. These trucks have a useful life of 5 to 20 years. This truck was originally equipped with a service body and crane. The service body rusted out in 2006. Shop personnel fabricated a flatbed with crane pedestal and mounted the original crane on this flatbed. Truck has had many repairs including replacement of the rusted out service body. It has a cracked windshield, torn seat upholstery, minor paint chips/rust spots and the flatbed paint is peeling off. The engine burns a lot of oil. The transmission/torque converter is making occasional noises and shudders and is expected to fail soon. Recommend for replacement with a better equipped mechanics service truck for field work.

The City reviews its Equipment Replacement Policy annually. At this point, the recommendation is to replace or acquire a 950 H Cat Loader, a 580 Super Extendahoe Backhoe; a B7G 3500 Sierra Flatbed and a lowboy trailer over the next four years.

Cost: $42,000 F350 Flatbed truck

Total Cost all five pieces of equipment: $542,000

State Projects

The City of Dillingham supports the following state projects which will bring significant benefits to Dillingham residents:

Transportation Projects within City limits;

1. Downtown Streets Rehabilitation: Project 51780
2. Kanakanak Road Squaw Creek to Hospital: Project 52458
3. Kanakanak Road D Street to Squaw Creek: Project 52799
4. Dillingham Airport Runway Safety Area/Repaving Apron: Project 59304

Transportation projects outside city limits:

1. Wood River Bridge

Downtown Streets Reconstruction and Rehabilitation

State Project # 57180, Amendment 1, May 2, 2012

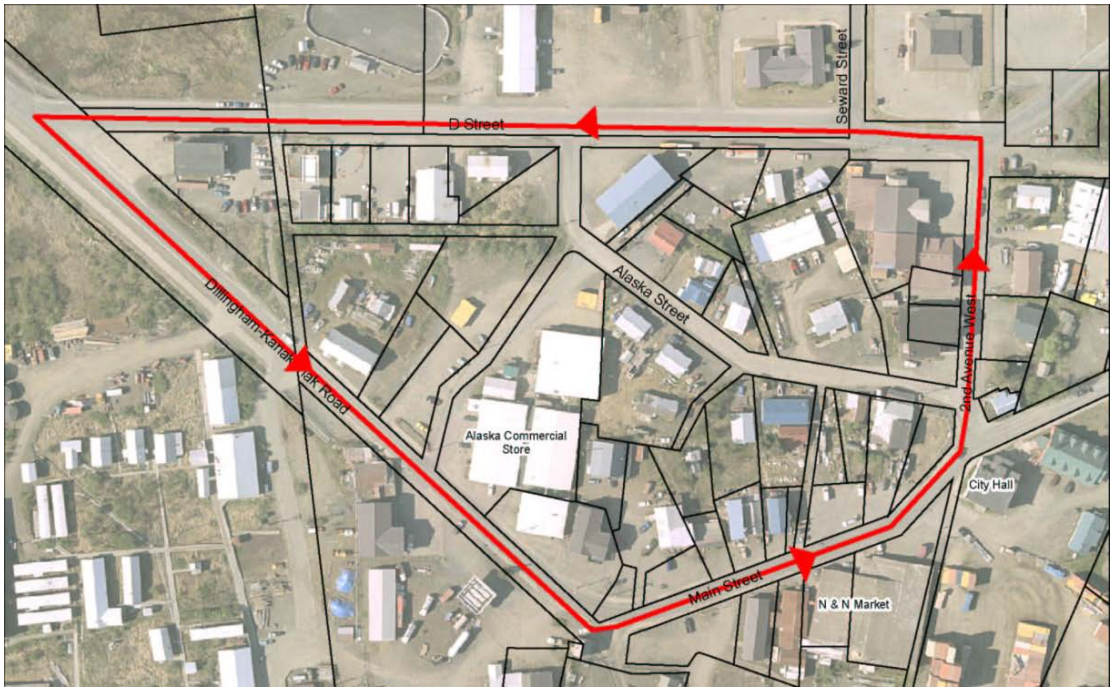


Figure 18 Downtown Streets Project Area

Project Description:

The project is to realign, reconstruct and rehabilitate approximately 0.61 miles of major collector that includes three streets forming a loop in the downtown area of Dillingham-Main Street from City Hall to the intersection with "D" Street, "D" Street north to Second Street West back to City Hall. The project does not include replacing unpermitted utilities or underground utilities.

Schedule and Costs:

2013: Right of Way: $2,625,300

2015: Construction: $8,225,000

Dillingham-Kanakanak Road Resurfacing

State Project # 52458 (Need ID 23715) Squaw Creek to the Hospital

Project Description:

The Project is to pave travel lanes and approaches along Kanakanak Road, replacing culverts underneath the approaches as needed. The project will raise a portion of Kanakanak Road about 2.5 feet for a length of 500 feet near milepost 3.0. It will replace existing 5 to 6 ft. diameter culverts at the crossings of three unnamed streams with culverts of equal size or greater, not to exceed 12 ft in diameter, designed for fish passage. Replace approximately 15 to 20 existing roadway drainage cross-culverts. Install, remove, and/or replace guardrail and end terminals to meet current design standards and improve foreslopes and upgrade signage as needed.

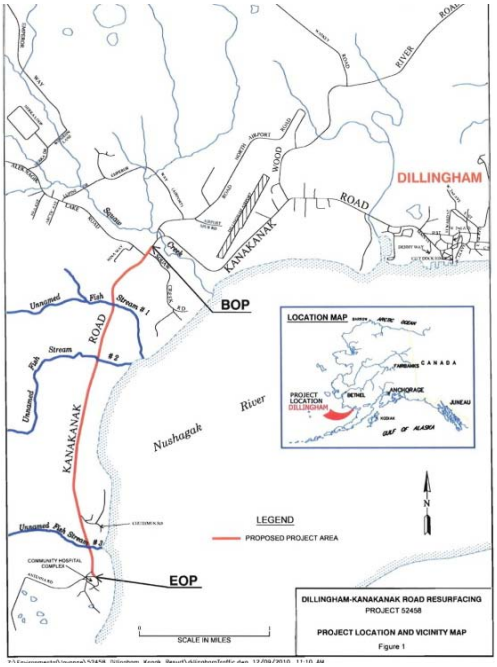


Figure 19 Kanakanak Road Project Area for Project #52458

Project Schedule and Cost:

2013: Construction $5,300,000

Dillingham-Kanakanak Road Resurfacing

State Project # 52799 – D Street to Squaw Creek

Project Description:

The project is to improve driving conditions and to increase the service life of Kanakanak Raod between D Street and Squaw Creek Road. This road is the only road out of the downtown business district, comprising shops, grocery stores, City Schools, Senior Center, Senior Housing, residences, the University of Alaska Fairbanks Bristol Bay Campus, City Hall, Hotels, the Bristol Bay Housing Association, KDLG radio, Nushagak Telephone and Electric Cooperative, Delta Western and Bristol Alliance Fuels, gas stations and other critical facilities.

Figure 20 Aerial Image of Project Area

The road is covered with potholes during heavy rains, requires constant maintenance, and has cracking and wheel path rutting. Portions of the road are susceptible to flooding. The culverts at Squaw Creek are hydrologically inadequate and do not accommodate flood flow and tidal fluctuations.

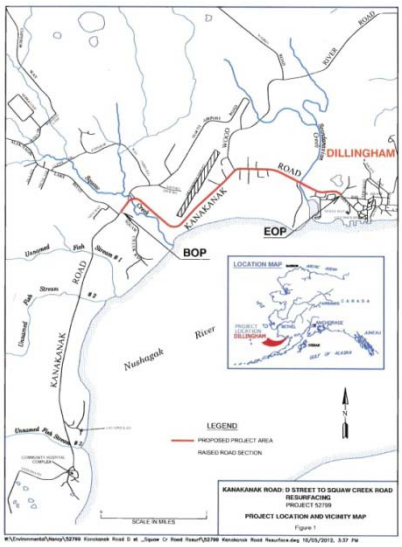


Figure 21 Project 52799 Route

Construction will enhance safety and drivability of the road and improve drainage within the project corridor. In addition the multiuse path has several places where pedestrian access is non-compliant with the Americans with Disabilities Act and the path does not have safe transit across intersections.

The proposed project would raise the height of the road by up to five feet for about .5 mile at Squaw Creek and Scandinavian Creek; replace existing in –stream culverts with larger diameter pipes and install overflow culverts at Squaw Creek and Scandinavian Creek; install erosion control devices; improve drainage; improve signs, guardrail, and guardrail end treatments and restripe as needed.

Project Schedule and Costs:

2013: Construction timeline unclear. Cost: $11,000,000

Dillingham Airport Improvements

State Project # 59304

Project Description:

The project will add approximately 310 feet of embankment beyond existing embankment at the end of Runway 01 and about 800 feet of embankment beyond the end of Runway 19 to achieve the maximum Runway Safety Area possible in this context. The project will also widen the western side of the RSA to 250 feet from runway centerline to achieve the maximum RSA width possible, It will construct about 800 feet of airport road to connect around the north side of the General Aviation Apron for airport and residential access and close the public connection of the Airport Road with Wood River Road. Fences and FAA facilities and utilities will be relocated to facilitate construction.

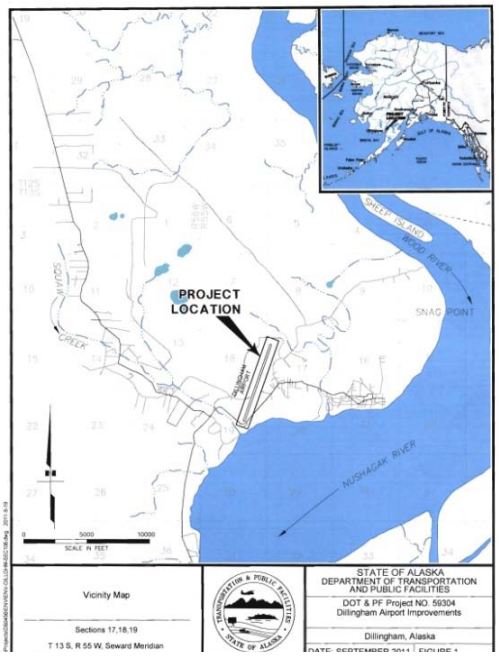


Figure 22 Project Location

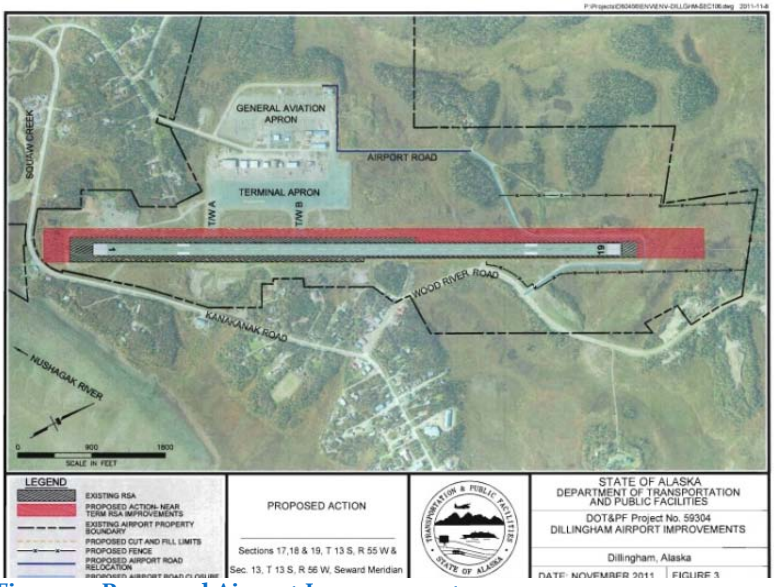


Figure 23 Proposed Airport Improvements

Project Schedule and Cost:

2013: Construction

Cost: $26,514,770

Projects Submitted by Other Organizations

1. H. Harvey Samuelsen Community Cultural Center
2. Seafood Processing Plant

Fish Processing Plant

Proposed by the Curyung Tribal Council

Project Description:

The proposed fish processing plant is a joint venture between the Ekuk Village Council and the Curyung Tribal Council in Dillingham, Alaska. The plant is to be a moderately sized, modern, efficient and innovative seafood processing facility that enhances resource utilization. The processing facility will chill Nushagak District salmon at the point of harvest and process them into high quality fresh and frozen fillets and Head and Gutted product. The long term goal calls for optimal utilization of fish resources by using different fish species to produce fish oil for vitamins and nutritional supplements, and capture fish waste for high grade fertilizers and other commodities. This will maximize the revenue, commercial salmon season, and resource utilization from the Bristol Bay fish resources.

The ideal location for this project is at the waterfront.

Project Schedule and Cost:

This is a long range project. Cost is $7,924,000

H. Harvey Samuelsen Community Cultural Center

Proposed by the Curyung Tribal Council

Project Description:

The Community Cultural Center is proposed as a unique facility in Dillingham, offering a resource for visitors and residents, a cultural and natural history museum, a center for youth activities and a place for local, regional, and statewide gatherings.

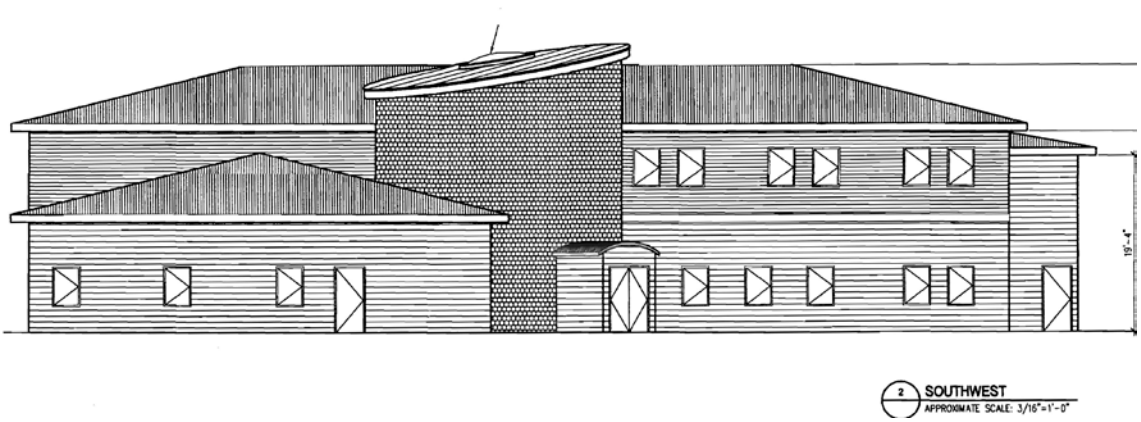
The Center will offer structured, engaging programs for positive youth development, a place to promote mentoring from tribal elders to tribal members, the community and visitors, through traditional crafts, arts and skills. The center will build innovative museum programs to attract visitors, attract conference bookings to the conference center and museum to assure sustainability. The center will create jobs for local residents during its construction and operation, both directly and indirectly by bringing visitors into the community to support local businesses.

The first floor will house an improved, modern facility for the Sam Fox Museum to hold artwork, crafts, documents, and historical items from Bristol Bay, a conference room/convention center with a stage, and a recreational center for youth which includes a bowling alley, movie theater, and computer lab. There will be a kitchen and concession area for teaching youth business-related skills and help provide for sustainability of the facility.

The second floor of the facility will be office space for rental or lease as a revenue generator to cover operations and maintenance. The second floor would be closed to the rest of the buildings to allow the tenant to conduct daily activities uninterrupted. The office space includes restrooms, janitorial closets and a full kitchen.

Project Schedule and Cost: Cost estimated at $10,444,752.

Project has 35% Design and Cost Estimate by Livingston Sloane.



Appendices

City of Dillingham CIP Development Schedule

Explanation of Project Table

City of Dillingham CIP Project Table

Dillingham Capital Projects Status 2010-2013

Capital Improvement Projects Summary of Projects by Year and Total Project Cost

Financing Assumptions

City of Dillingham Current Grants

Project Nominations Inventory

City of Dillingham CIP Development Schedule

DATE	ACTION
August 1	Advertise on radio, website, and posters
August 2	Ad for nominations in Bristol Bay Times
August 7	Distribute previous nominations to staff and nomination forms to the public via internet
August 10	Establish Project Review Committee: City Manager, City Finance Director or Assistant Director, Planning Director, Public Works Director, Planning Commissioner, Special Projects Manager
August 16	Ad for Nominations in the Bristol Bay Times
August 21 CANCELLED	Planning commission meeting. Present six year plan concept.
August 24, 5 p	**DEADLINE:** project nominations to the Planning Department
August 30 1-3p	Staff and Project Review Committee review projects
August 31 1230-2:30	Project Review Committee meets with staff and public to review and evaluate projects
September 4, 2012	Planning Commission regular meeting.
Sept. 7, noon-1 p.m. City Hall	Workshop with Planning Commission on the six year plan.
Sept. 11, 10-11a.m.	Project Review Committee meets again to finalize evaluation and recommendations
September 13	Staff distribute draft plan + PC packet to Planning Commission
September 18	**Public hearing** on 6 year plan. Planning Commission recommends six year plan to the City council
September 19	Send the PC recommended Six Year CIP to lobbyists.
September 26	Planning Dept submits resolution to City Clerk for Oct. 4 meeting
October 4	City Council Public Hearing on CIP. CC accepts PC final list.

CIP Project Table Explanation

Note:	This table contains City of Dillingham Projects only.
Category:	Type of project: Equipment, Erosion/Port/Harbor, Facilities; Landfill; Roads, and Water and Sewer projects.
Project:	Title of the Project
Existing Funding:	This is what has been appropriated or acquired by October 9, 2012.
Funding Need:	This is what the City must raise to complete the estimated total cost of the project or to provide a match to grant funding.
Priority:	This is determined by both the project evaluation and the year the project is needed. Criteria used to evaluate projects included: 1. whether there are notices of violation; 2. whether there is an existing threat to health and safety; 3. whether there is a formal warming; 4. whether there is mechanical, system or structural failure imminent; 5. whether the facility is necessary to maintain essential services; 6. whether it is a phase of an ongoing CIP project; 7. whether there is preliminary investment in the project; 8. whether there is partial funding; 9. whether the project is funded by another entity; 10. whether the project reduces operational costs for the City; 11. whether the project will generate revenue for the City; 12. whether the project is needed in the next 2 years; and 13. whether the project is needed in 3-5 years.
Year:	An X in a particular year indicates when the project is scheduled to begin.
Category Total:	This is the total funding needed for all the projects in the category.

City of Dillingham Capital Improvement Project Table

City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
A. EQUIPMENT REPLACEMENT										542,000
F350 Flatbed Truck		42,000	1		X					
950 H Cat Loader		325,000	2			X				
580 Super Extendahoe Backhoe		95,000	2				X			
B7G 3500 Sierra Flatbed Replacement		40,000	3					X		
Low Boy Trailer - Used		40,000	3						X	
B. EROSION/PORT/HARBOR										16,999,000
Harbor Revetments and Breatkwater/Emergency Bank Stabilization*	USACOE	7,525,000	1	X	X	X	X	X		
East and South Interior Harbor Bulkheads		8,184,000	2			X	X	X	X	
Harbor Float Replacement		90,000	1		X		X		X	
Snag Point Bulkhead Protection		1,200,000	1		X	X	X	X	X	
C. FACILITIES										14,179,173
Animal Shelter (new construction)*		420,000	2				X			
Cemeteries		125,000	2			X	X	X		
City Hall Improvements		60,000	2			X	X			
E911 system improvements		200,000	1	X	X	X				
Hockey Rink Planning and Design		47,500	1		X					
Library Ramps and other repairs		100,000	1	X	X					
Fire Hall and Public Safety Building(s)		10,450,000	1	X	X	X	X			
Public Works Compound Fence		187,000	3					X		
Public Works Compound Storage Building		300,000	2			X				
Senior Center Upgrades		1,829,673	1		X	X	X	X	X	
Territorial School Renovation		460,000	2			X	X	X	X	

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City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
* Additional options such as purchasing or leasing are being explored.										
D. LANDFILL										4,348,436
LandfillUpgrades	161,564	4,348,436	1	X	X	X				
E. ROADS										3,175,000
Downtown Streets (ADOT 57180)	fully funded		1	X	X	X				
Kanakanak Beach Parking Lot with CTC	city land		1	X	X					
Nerka Road Rehabilitation	1,000,000	2,500,000	1	X	X					
Seward and D Street Rehabilitation with Downtown Street Project		675,000	2			X	X			
F. WATER/SEWER										25,115,718
Downtown Sewer Expansion (Old Airport Sewer Line)		804,000	1		X					
Harbor Water and Sewer Line		1,062,600	3					X		
Utilities and Storm Sewer Upgrades		3,000,000	1	X	X	X				
Wastewater Collection System Upgrades	200,000	1,500,000	1	X	X	X	X	X	X	
Wastewater Treatment Plant Upgrades	2,280,000	10,920,000	1	X	X	X				
Water and Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)	5,503,983	7,829,118	1		X	X	X	X	X	
GRAND TOTAL	**9,145,547**	**64,359,327**								
G. PROPOSED FACILITIES (more than 6 years out)										18,368,752
Fish Processing Plant		7,924,000								
Harvey Samuelsen Community Cultural Center		10,444,752	2009 Total Project Budget from 5/15/09							
H. PROPOSED SERVICES										
1 Coordinated Transportation plan										

City of Dillingham Six Year Capital Improvement Program 2013-2018

PROJECT	Existing Funding	Funding Need	Priority	2013	2014	2015	2016	2017	2018	Category Total
* USACOE Emergency Bank Stabilization Project at Harbor Entrance to protect dredge spoils facility and interior harbor										
Table includes City of Dillingham projects and those funded primarily by another entity but which require City matching funds.										
List does not include projects undertaken and fully funded by another entity.										

Capital Improvement Categories 2013-2018

Summary of Projects by Year and Total Project Cost

Category	2013	2014	2015	2016	2017	2018	TOTAL
Equipment and IT Total		42,000	325,000	95,000	40,000	40,000	542,000
Erosion/Harbor/Port		430,000	8,325,000	230,000	5,256,000	2,758,000	16,999,000
Facilities Total	83,000	1,307,500	10,139,000	689,224	1,326,225	634,224	14,179,173
Landfill Totals	182,364	1,200,000	2,966,072				4,348,436
Roads Totals		3,500,000	375,000	300,000			3,175,000
Water/Wastewater Totals	1,871,400	8,154,849	6,466,435	8,522,272	6,865,720	1,314,926	32,899,701
Grand Total (1000s)	1,954,400	13,616,713	28,596,507	9,836,496	13,487,945	4,747,150	72,143,310

Dillingham Capital Projects Status 2010-2013

	Title	In Progress	Year Completed
1	Wastewater Treatment Plan Upgrades	Planning & Design	
2	Dock Lift Station	Design	
3	Library Roof Repairs	Bid February 2013	
4	Fire and Public Safety Buildings Replacement	Planning	
5	Water System Improvements Phase 1.3	Seeking match	
6	ADOT Downtown Streets	ROW	
7	ADOT Kanakanak Road Squaw Creek to Hospital	BID	
8	ADOT Kanakanak Road D Street to squaw Creek	Design	
9	ADOT Dillingham Airport Improvements	Construction	
10	Snag Point Force Main Relocation		2012
11	Picnic Park Riprap Repair		2012
12	Snag Point Bulkhead Annual Maintenance		2011
13	Wood River Road		2011
14	Lil' Larry Road (formerly Tower Road)		2011
15	Senior Center Repairs from flooding		2011
16	Dillingham City Schools Elementary School Renovation		2011
17	Lift station Assessment		2010
18	Wastewater Treatment Lagoon Study		2010
19	Dillingham City Schools High School/Middle School Renovation		2010
20	T Dock Repairs		
21	North Bulkhead Extension		2010
22	North Bulkhead Extension Crane		2010
23	Standpipe and Water Storage Tank Upgrades		2010
24	Water Treatment Plant		2010
25	Water Line from Well #2 to Water Treatment Plant		2010
26	Water Line from Well#6 to Well #2		2010
27	Well #6 Installation		2010
28	Small Boat Harbor South Ramp		2010
29	Small Boat Harbor North Ramp		2010

City of Dillingham Financing Assumptions

The City of Dillingham is a first class city with a population of approximately 2239 in the Unorganized Borough. Not including the annexed waters of the Nushagak Commercial Fishing District, approximately 13% of all the uplands within City limits is taxable. Non-taxable land includes City, State, Federal lands (such as the Togiak National Wildlife Refuge, and Native Allotments) as well as undeveloped Native Corporation lands, tax exempt privately owned land, and lands owned by non-profit organizations. The City's operating budget in Fiscal Year 2013 was approximately $16.9 million dollars, including all services plus capital projects. In addition, the City has a deferred maintenance and capital needs list of approximately $72 million dollars. The City has a long track record of responsibly managing public funds to complete public and public/private projects and currently manages 32 grants, a list of which is included here.

The City has the following options available for financing capital projects due to its restricted tax base:

- Federal grants or loans
- State grants or loans
- Special assessment bonds
- Bank loans
- Private sector development agreements
- Property owner contributions
- Lease or lease-purchase agreements

The following services have special revenue funds that are appropriated for the services from which they are derived:

- Water and Sewer
- Landfill
- Port-Dock
- Port – Boat Harbor
- E911
- Senior Center
- Ambulance Replacement Fund

The City charges the following taxes:

- 13 mill real and personal property tax
- 6% Sales and Gaming
- 10% Lodging and Alcohol
- 2.5% Severance tax on raw fish from the Nushagak District
- 2.5% Sales tax on raw fish from the Nushagak District

The City has always been fiscally conservative, and has rarely taken on loans to pay for capital expenditures, due to its limited revenue base. The main exception to this was the recent GO bond for the renovation of the Dillingham City Schools, for which the City is still obligated. The City increased revenues in 2012 by annexing the Nushagak Commercial Fishing District, but this has not solved this situation, due to the lower than predicted harvest in 2012. Thus the City makes every attempt to attain grant funding where possible, and uses loans only in emergencies.

City of Dillingham Current Grants

Name	Number	Grantor	Awarded	Reporting	FY12	FY13
2011 IMLS	NG-05-11-0214-11	IMLS	7,000.00	Dec. 15	X	
2012 IMLS	NG-05-12-0110-12	IMLS	7,000.00			X
2013 PLA	PLA-13-728-18	AK State Library	6,500.00	Sept. 1		X
Alaska OWL Project		AK State Library	50,186.00	None	X	X
Bulletproof Vest Partnership		USDOJ	5,800.00	On purchase		
City Shoreline Emergency Bank Stab.	09-DC-449	DCRA	1,500,000.00	Qtrly		X
Code Blue Phase 10		SREMS	14,766.00	None		X
Community Jail Contract	2031003	SOA	480,417.00	Qtrly		X
Consortium Library Agreement		DCSD/UAF-BB	8,000.00		X	X
EED E-Rate	850499	USAC	49,057.70		X	X
Library-Museum Bldg Roof	13-DC-317	SOA-DCCED	250,900.00	Qtrly		X
NSIP	607-12-10	SOA-DHSS		Monthly		X
NTS FY13	607-13-108	SOA-DHSS	120,305.00	Qtrly		X
OWL Internet Technology Aide	02-42-B10560	AK OWL Project	7,280.00	Monthly		X
OWL Sustainability Summit		AK State Library		None		X
Pollock Grant		BBEDC	550,000.00			X
Safe Routes to School	LU 20-09-0008	SOA DOT	5,000.00	Monthly		X
Snag Point Sewer Line Emerg. Reloc.	12-DC-343	DCRA	1,800,000.00	Qtrly		X
Technology Bundle Agreement		AK State Library	equipment	None		X
Waste Water Treatment Plant	13-DC-516	SOA-DCCED	2,280,000.00	Qtrly		X
Water System Imp. Phase 1.3 & 1.4	28306	SOA-DEC	3,000,000.00	Qtrly	X	X

CIP Inventory of Past Nominations

No.	Project Title -	First Year	Notes – this is the year the project was nominated for the CIP
1.	3rd Avenue East Construction	1992	1994
2.	AC Alley Paving and Repair	1992	1994
3.	Aguluwok Drive	2005	
4.	Airport Road Sewer	1992	1994airport to Kanakanak Road
5.	Animal shelter services	2011	2012
6.	ATV Trail to Town	2005	
7.	Ballfield or Park near Nerka Subdivision	2009	2010
8.	Bayside Drive Sewer Extension	1992	Larson Rd Sewer line, 1994, 2005, 2007
9.	Bear Lookout at Landfill	1994	
10.	Boat Harbor long wall extension	2000	2001, 2003, 2005, 2006
11.	Central Avenue Paving D Street to G Street	1992	1994,
12.	City Auditorium	1992	1994
13.	City Hall renovation	2011	2012 replace carpets
14.	City Sidewalks	1998	1999, 2000, 2001, 2003, 2005
15.	Bike and Pedestrian walkways along state highways in Dillingham (unfinished)	1998	1999, 2000, 2001, 2003, 2005, 2005, 2005, 2006, 2007
16.	Bike path extension along Aleknagik Lake Road	2009	
17.	Community Greenhouse	2009	2010
18.	Community Recreation Center	1992	1994, 1998, 1999, 2000, 2001, 2003
19.	Composting	2011	Part of new landfill project 2013
20.	Confined Disposal Facility	1999	2000, 2001, 2003, 2005, 2006, 2007
21.	Coordinated Transportation Plan	2011	
22.	Crosswind Runway	1998	1999, 2000, 2001, 2003
23.	Custom Fish Processing Plant	2010	
24.	D Street Extension and Construction	1998	1999, 2000, 2001, 2003, 2005, 2010
25.	Dense Neighborhood Water and Sewer	2005	
26.	Downtown Sewer Expansion (Old Airport Sewer Line)	1992	1994,1998, 1999, 2000, 2001, 2003, 2005, 2006, 2011, 2012
27.	Downtown Street Paving and Repair	1998	1999, 2000, 2001, 2003, 2005,(ADOT) 2006, 2007, 2009, 2010
28.	DPS and Fire Building Assessments	2007	
29.	Dry Hydrant Reservoir System	2009	2010
30.	E Street Paving, Seward Street to First Avenue East	1992	1994,
31.	E911 System Improvements	2009	2010, 2011, 2012
32.	Fire Control for Landfill	2010	
33.	Fire Hall Downtown	1992	1994, 1998, 1999, 2000, 2001, 2003, 2005, 2006, 2007, 2009, 2010, 2011, 2012
34.	Fire Station Annex	2009	
35.	Fish Processing Plant	2011	2012
36.	Harbor Bulkheads	2009	2010, 2011, 2012
37.	Harbor Floats	2009	2011
38.	Harbor Gazebo	2009	
39.	Harbor Improvements – west side retaining wall and dolphins	1992	1994
40.	Harbor Revetments & Breakwater/Emergency Bank Stabilization	2009	2010, 2011, 2012
41.	Heavy Equipment and Vehicle Replacement Schedule	2009	2010, 2011, 2012

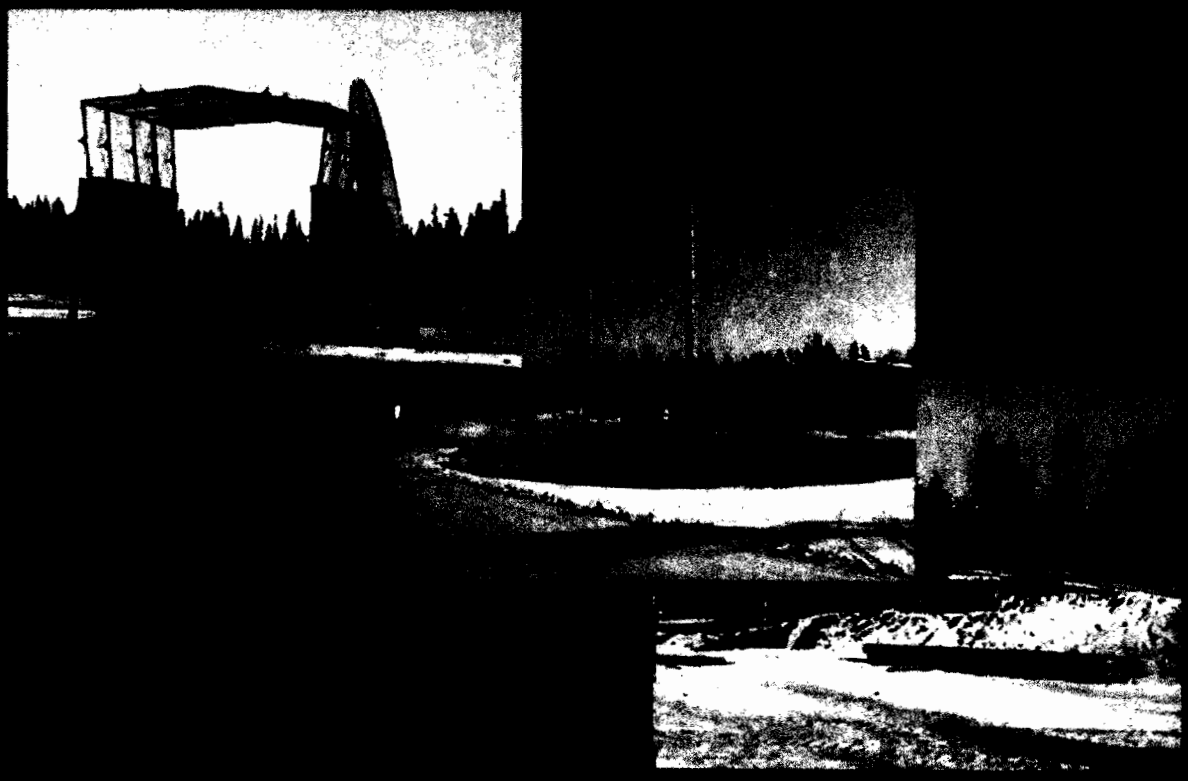
42.	Hockey Rink Roof	2007	2009, 2010, 2011
43.	IT Plan	2009	2010 (software)
44.	Jail Expansion Study	1994	2007
45.	Kanakanak Beach Parking Lot w/Curyung Tribal Council	2009	Called K Beach Access
46.	Landfill Burnbox	2009	2010
47.	Landfill Regulatory Compliance Improvements for 2014 Permit	2012	
48.	Library Ramps, Other Repairs (Energy Efficiency Improvements)	2009	
49.	Live Fire Training Structure	2009	2010, 2011
50.	Love Our Bicyclists	2010	
51.	Lupine Culvert Replacement	2009	2010
52.	Multipurpose Community Hall –H. Harvey Samuelsen Community Cultural Center in 2005 or 2004	1994	1998, 1999, 2000, 2001, 2003, (HHSCCC)2005, 2006, 2007, 2003, 2010, 2011, 2012
53.	Nerka Road Rehabilitation (culverts in 2009)	2009	2010, 2011, 2012
54.	New Sam Fox Museum	1992	1994
55.	Old Airstrip Project – volleyball, court, ice rink, track garden	1992	
56.	Public Cemetery	1992	1994, 1998, 1999, 2000, 2001, 2003, 2005, 2006, 2009, 2010, 2011, 2012
57.	Public Safety Building(s)	2006	2011, 2012
58.	Public Works Compound – Fence	2011	2012
59.	Public Works Improvements – Heated Building	2010	2011, 2012
60.	Senior Center Upgrades	2007	2007 Senior Center Renovation, 2009, 2010, 2011, 2012
61.	Seward and D Street Rehabilitation w/Downtown Streets Project	2011	2012
62.	Skateboard Park	2009	2010
63.	Snag Point Bulkhead Protection – current erosion	2011	2012
64.	Snag Point Erosion protection (which lead to new BH)	1992	1994,1995 new bh built in 99
65.	Squaw Creek/Nushagak River erosion control	1994	
66.	Swimming Pool	1992	1994, 1998, 1999, 2000, 2001, 2003, 2005, 2006, 2010
67.	Territorial School Renovation	2011	2012
68.	Update 2003 Water and Sewer Master Plan	2010	
69.	Utilities and Storm Sewer Upgrades for ADOT Downtown Streets Project	2011	2012
70.	Wastewater Collection System Upgrades	2010	2011, 2012
71.	Wastewater Lagoon Outfall relocation	2011	
72.	Wastewater Treatment Plant Upgrades	2010	2011, 2012
73.	Water Loop by Nushagak and Hydrants	1992	1994,1995, 1996, 1998, 1999-priority 1, 2000 priority 2, 2001, 2003, 2005, 2006, 2009, 2010
74.	Water Meters	2009	
75.	Water/Sewer Master Plan Phases 1.3 and 1.4 (New Water Source)	2000	2001, 2003, 2005, 2006, 2007, 2010, 2011, 2012
76.	Windmill Hill – Lake road Fire Protection Water Supply	1992	1994, 1998, 1999, 2000, 2001, 2003
77.	Wood River Ramp	2005	2006, 2007, 2009
78.	Youth Center	1994	

PLANNING DEPT.

DILLINGHAM SOLID WASTE MANAGEMENT PLAN

BEESC Project No. 26089

October 2006



Bristol
ENVIRONMENTAL & ENGINEERING SERVICES CORPORATION

111 W. 16th Avenue, Suite 301
Anchorage, Alaska 99501
Phone (907) 563-0013
Fax (907) 563-6713

Prepared for:
City of Dillingham
P.O. Box 889
Dillingham, Alaska 99576

TABLE OF CONTENTS

TABLES

DRAWINGS

APPENDICES

ACRONYMS AND ABBREVIATIONS

°	degrees
ADEC	Alaska Department of Environmental Conservation
City	City of Dillingham
MSWLF	Municipal Solid Waste Landfill
Bristol	Bristol Environmental & Engineering Services Corporation
cy	cubic yard(s)
EPA	U.S. Environmental Protection Agency
AAC	Alaska Administrative Code
MSW	Municipal Solid Waste
PCB	polychlorinated biphenyls
RACM	regulated asbestos-containing materials
S.W.A.N.	Solid Waste Alaska Network
SWMP	Solid Waste Management Plan
TCLP	Total Characteristic Leaching Procedure
'	minutes
°F	degrees Fahrenheit
bgs	below ground surface
CFR	Code of Federal Regulations
CFCs	chlorofluorocarbons
ACM	asbestos-containing material
LEL	lower explosive level

REVISION HISTORY

This revision to the Dillingham Solid Waste Management Plan made major revisions to the previous April 1998 Solid Waste Management Plan, prepared by HDR Alaska, Inc., for the City of Dillingham. Some text from the previous Solid Waste Management Plan was included in this revision of the Dillingham Solid Waste Management Plan. This text was taken from Sections 3.2, 3.3, 3.5, and 4.8.5 of the 1998 Solid Waste Management Plan, and is included in Sections 4.0, 4.1, and 7.3 of this planning document. The October 1993 Dillingham Solid Waste Characterization Study has remained as a reference in Appendix A.

IMPORTANT PHONE NUMBERS

Emergency Number

911

Call 911 only when human life or property is in jeopardy. Non-emergency phone numbers are listed below:

City of Dillingham, City Hall
Public Works Director
PO Box 889
Dillingham, Alaska 99576
Phone: (907) 842-5211
Fax: (907) 842-2060

Kanakanak Hospital
Phone: (907) 842-5201

Dillingham Police Department
Phone: (907) 842-5354

Dillingham Fire Department
Phone: (907) 842-2288

Alaska Department of Environmental Conservation
Southcentral Regional Office
55 Cordova Street
Anchorage, Alaska 99501
Phone: (907) 269-7500
Fax: (907) 269-7655

Laboratories

SGS Environmental Services
200 W. Potter Drive
Anchorage, AK 99518
Phone: (907) 562-2343
Fax: (907) 561-5301

Analytica Alaska, Inc.
5761 Silverado Way, Unit N
Anchorage, Alaska 99518
Phone: (907)-258-2155

Dillingham Landfill
Schedule of Activities

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Inspections	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Monitoring												
Water Quality					✓				✓			
Methane		✓			✓				✓		✓	
Ash					✓				✓		✓	
Litter Collection	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
Photographs			✓			✓			✓			✓
ADEC Reporting							✓					

1.0 INTRODUCTION

The City of Dillingham (City) retained Bristol Environmental & Engineering Services Corporation (Bristol) to revise the April 1998 City of Dillingham Solid Waste Management Plan (SWMP) to address options for the community, including waste disposal, recycling and minimization. This solid waste management plan provides a summary of the comprehensive waste management system that includes characterization, transport, storage, treatment, and disposal options for the City.

The City currently operates a Class II Municipal Solid Waste Landfill (MSWLF). The requirements for a Class II landfill are that it 1) accepts less than 20 tons of Municipal Solid Waste (MSW) per day, 2) there is no evidence of groundwater pollution, 3) road connections to a Class I MSWLF are greater than 50 miles, or do not exist, 4) there are seasonal interruptions to surface transport, and 5) annual precipitation is less than 25 inches.

1.1 REGULATORY OVERVIEW

Solid waste planning, disposal, and management is regulated or influenced by acts at both the federal and state levels. Federal regulations include the Resource Conservation and Recovery Act; the Hazardous and Solid Waste Amendments; the Public Utility Regulatory Policies Act; the Clean Air Act; the Comprehensive Environmental Response, Compensation and Liability Act; the Clean Water Act; and the Marine Pollution Act. At the state level, regulations that affect solid waste management include the Solid Waste Management Regulations, Alaska Administrative Code 18 Part 60 (18 AAC 60), Hazardous Waste Regulations (18 AAC 62), Alaska Coastal Management Program, and Air Quality Control Regulations (18 AAC 50).

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2.0 PROJECT PLANNING AREA

2.1 FACILITY INFORMATION

2.1.1 Facility Name

Dillingham Solid Waste Facility.

2.1.2 Facility Location

Township 12 South, Range 55 West, Sections 32 and 33, Seward Meridian Alaska.

2.1.3 Facility Area

100 acres, up to 69 acres of which is designated to receive wastes (includes inert and municipal solid waste).

2.1.4 Owner

City of Dillingham
PO Box 889
Dillingham, Alaska 99576
Phone: (907) 842-5211

2.2 LOCATION

Dillingham is located at the extreme northern end of Nushagak Bay in northern Bristol Bay, at the confluence of the Wood and Nushagak rivers. The City lies 327 miles southwest of Anchorage, at approximately 59 degrees (°) 02 minutes (') north latitude, 158° 27' west longitude (Section 21, Township 013 South, Range 055 West, Seward Meridian). Dillingham is in the Bristol Bay Recording District. The city limits encompass 33 square miles of land and 2 square miles of water (DCED, 2006).

+3
36
+396 = 398 mi²

2.3 CLIMATE

Dillingham's climate is primarily maritime, but the arctic climate of the Interior also affects the Bristol Bay coast. Average summer temperatures range from 37 degrees Fahrenheit (°F) to 66°F. Average winter temperatures range from 4°F to 30°F. The annual average precipitation is 25 inches, with July through October being the wettest months (2.2 to 3.9 inches per month). Approximately 65 inches of snowfall occurs during the winter months, with December through March receiving the heaviest snowfalls (12 to 19 inches per month). Heavy fog is common in July and August. Winds up to 60 to 70 miles per hour may occur between December and March. The Nushagak River is ice-free from June through November (DCED, 2006).

2.4 TOPOGRAPHY

Dillingham is in an area of rolling topography, consisting of irregularly shaped glacial moraine knolls and ridges separated by muskeg. Elevations range from about 20 to 170 feet above sea level.

2.5 GEOLOGY

The geology of the area consists primarily of sands and gravels overlain in the uplands by windblown silt derived from unvegetated floodplains and volcanic ash. Swamp deposits of thick organics ranging in thickness from less than 2 to more than 20 feet, typically mantle the silts in the lowlands. Fine-grained soils beneath north-facing slopes have been found to be perennially frozen. Shallow bedrock has been reported in one location, at approximately 11 feet below ground surface (bgs) at the high school parking lot.

2.6 SOILS

Dillingham lies on a moraine and outwash-mantled lowland with hills 50 to 100 feet high, and wide expanses of wetlands and lakes. The area is underlain by a complex sequence of primarily fine-grained glacial, fluvial, and marine sediments that are several hundred feet thick. The upland moraine hills generally consist of a thick layer of silty loess, underlain by coarse-grained sands and gravel. The lower wetland areas generally consist of an organic mat of peat or muskeg with depths ranging from several inches to several feet in thickness and underlain by wet, stiff clays (Glass, 1987). Spring breakup usually occurs from mid-April to late May. Heavy surface runoff usually occurs throughout May, during which time trench excavations could be difficult and dangerous. The ground begins to freeze around mid-October. Gravel for trench backfill is available from a number of pits in the area, the preferred site generally being the pit run by Choggiung, Limited, at Milepost 9.5 of Aleknagik Lake Road.

2.7 SEISMIC ACTIVITY

Dillingham has not experienced any recent structural damage from earthquakes. Dillingham is in Seismic Zone 2, which is classified as having moderate seismic activity. There are no known volcanoes or other active geothermal features near the City.

2.8 SURFACE WATER

The Dillingham area is bounded on three sides by rivers: the Wood River to the east, the Snake River to the west, and the Nushagak River to the south. The Nushagak is the largest river in the area, with a drainage area of 12,400 square miles. Smaller drainage systems in the area include Scandinavian Creek and Squaw Creek. Wetlands are prevalent throughout the area.

Flooding in Dillingham is generally coastal in nature, and is caused by storm surges. The City is classified as being in a low flood hazard area. Minor flooding has been reported at the mouths of Scandinavian Creek and Squaw Creek, and at the intersections of Scandinavian Creek and Wood River Road. The worst recent flood was in 1981, and was caused by wind-

driven waves. One public facility was flooded during this event. A 1929 storm, in conjunction with high tides, flooded the lower areas of Dillingham to an elevation of 30 feet (U.S. Army Corps of Engineers [USACE], 2002).

2.9 GROUNDWATER

Groundwater is recharged from infiltration of rainfall, snowmelt, and stream flow. Natural seasonal fluctuations of water levels are typically less than 6 feet. Water levels are lowest during June and July, when water demand is greatest (fish processing is most intensive), and at certain times during winter because of low recharge. Approximately 600 known wells ranging from 20 feet deep to more than 200 feet deep have been drilled in the Dillingham area.

2.10 AIR QUALITY

Dillingham is not in a non-attainment area. There are no known air quality problems in Dillingham. Monitoring devices are not in place. No known air quality studies have been performed in the area, and no known air quality permits have been issued to the City by ADEC. Currently, the only potential industrial source of air pollution is from the electrical utility run by Nushagak Electric.

2.11 POPULATION

Traditionally a Native area with Russian and Scandinavian influences, Dillingham is now a highly mixed population of non-Natives, Eskimos, Aleuts, and Indians. Approximately 61 percent of the population is of Native heritage. Population growth has fluctuated over the years, with the highest population growth occurring in the 1930s and 1960s. The year 2000 population was 2,466 individuals (DCCED, 2006). The current (2006) population is estimated at 2,877 people. This population can more than double in the summer months due to commercial fishing and tourism. Table 2-1 presents a summary of past population estimates for 1920 through 2000. Table 2-2 presents a summary of population projections for 2006 through 2026. To provide for a conservative population estimate, it was assumed that future population growth would not be significant because of current economic conditions in the region. This population projection assumes an annual growth rate of 2.6 percent, which is the average annual growth rate for the City from 1980 to 2000. Based on this growth rate, the population in 20 years (2026) is estimated to be 4,806 people.

Geographically specific population projections were estimated based on the quality of available land, past growth patterns, and on future growth anticipated by local residents. Future growth patterns over the next 20 years are estimated in Table 2-2.

Table 2-1 Historical Population Estimates for Dillingham 1920 to 2000

Year	Population
1920	182
1930	85
1940	278
1950	577
1960	424
1970	914
1980	1,563
1990	2,017
2000	2,466

Source: U.S. Census information for 1920-2000

Table 2-2 Population Projections for Dillingham

Year	Estimated Population	Year	Estimated Population	Year	Estimated Population
2006	2,877	2013	3,443	2020	4,120
2007	2,951	2014	3,532	2021	4,228
2008	3,028	2015	3,624	2022	4,337
2009	3,107	2016	3,718	2023	4,450
2010	3,188	2017	3,815	2024	4,566
2011	3,270	2018	3,914	2025	4,685
2012	3,356	2019	4,016	2026	4,806

2.12 ECONOMY

Dillingham is the economic, transportation, and public service center for western Bristol Bay. Commercial fishing, fish processing, support of the fishing industry, and tourism are the primary economic activities. Approximately 280 residents hold commercial fishing permits. The summer fishing season begins with the herring run in May. Salmon fishing occurs during June and July (DCED, 2006).

The City's role as the regional center for government and services helps to stabilize seasonal employment fluctuations. Tourism accounts for a significant percentage of the local economy, with sportfishing and hunting accounting for the majority of the tourism sector. Most visitor activity occurs during summer and early fall. During spring and summer, the population typically doubles, primarily due to fishing. Many residents depend on subsistence

activities, and the trapping of beaver, otter, mink, lynx, and fox, provide a source of cash income. (DCED, 2006)

2.13 TRANSPORTATION

Dillingham can be reached by air and sea. Air transportation provides the primary means of access for freight, mail, and people. The state-owned airport, located approximately four miles west of downtown, provides a 6,404-foot paved runway and a flight service station. Regular jet service is available to and from Anchorage. A seaplane base is available three miles west of the airport at Shannon's Pond. The seaplane base is owned by the U.S. Bureau of Land Management, Division of Lands. A heliport is available at Kanakanak Hospital. The City-operated small boat harbor provides slips for boats, a dock, barge landing, boat launch, and boat haulout facilities. It is a tidal harbor and is used only during the fishing season. Barges provide cargo service from Anchorage and Seattle. Road access is limited to a 23-mile paved road to Aleknagik. This road is maintained by the State of Alaska Department of Transportation and Public Facilities.

2.14 LAND USE

Year 2000 U.S. Census figures reported 1,000 housing units within the City. Of these, 88.4 percent were occupied, 3.9 percent were vacant due to seasonal use, and 7.7 percent were vacant all year. The average household size was 2.75 individuals.

The majority of the developed land in the Dillingham area is classified as being used for either commercial or residential purposes. There are a limited number of industrial facilities within the City, the most notable being the Peter Pan Seafoods, Inc., cannery and Nushagak Electric. A specific categorization of these uses by acreage or density is not currently available. There is no information available to provide a detailed summary of occupied and unoccupied lots and dwellings.

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3.0 EXISTING AND HISTORICAL SOLID WASTE FACILITIES

3.1 EXISTING LANDFILL

The Dillingham municipal landfill is currently operated by the City, and has a Class II ADEC Landfill Permit (Permit 9921-BA002B), which was renewed in 2005. The landfill consists of the main MSW cell, a salvage area, a burn area, a transfer station, and a paint and solvent accumulation area. The transfer station has an open drop system where residents can back up to dumpsters at an unloading ramp to deposit their waste. An aluminum recycling bin and a pet incinerator are also located at the transfer station. The access road to the landfill is gated, and is locked when the facility is closed.

Chain-link and solar-powered electric fencing surrounds the MSWLF cell, the burn box area, and the transfer station. The electric fencing was installed to reduce a former bear scavenging problem at the landfill. The salvage area is not fenced.

As of 2006, the existing MSW cell has a footprint of approximately one acre. A rifle range borders the transfer station to the south. An access road to the rifle range is located adjacent to the transfer station.

3.2 OLD LANDFILL

The former Dillingham solid waste landfill is located at Mile 9 of the Lake Aleknagik Road. The landfill was opened in 1979, and was permitted during the first years of its operation. This facility was unpermitted for many years. Burning was generally not performed, except during the early years of operation. The dump was closed and a final cap applied in 1999. Annual monitoring at the old landfill is required until 2029. The landfill is not lined, and there is no leachate collection system. The landfill is bordered by open tundra and forest land.

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4.0 WASTE STREAM CHARACTERIZATION

4.1 RESIDENTIAL WASTE PRODUCTION

Household (residential) waste is the primary source of solid waste. A Solid Waste Characterization Study (Appendix A) was completed for the City in 1993 by HDR to provide an estimate of Dillingham's solid waste volumes and characteristics. The Dillingham study developed an average waste generation of 6.3 pounds/person/day for the full time residents during 1993 to 1994. Based upon this information, estimated solid waste production for Dillingham is provided in Table 4-1. The operator reports that approximately 90 tons of solid waste is deposited in the transfer station weekly. Fish processing plants contribute large quantities of waste in the summer when commercial fishing activities are at its peak. Raw fish wastes generated by fish processing is disposed of in the bay (not the landfill). The City receives an estimated 10,000 gallons of used oil per year. This oil is used to heat the City Shop Complex, using a waste oil burner. Approximately 13,000 pounds of batteries are collected annually and shipped to a hazardous waste facility.

Table 4-1 Dillingham Solid Waste Production Assumptions

Assumptions	
Annual growth rate	2.7 %
Per capita garbage production	6.3 pounds/capita/day
Density of compacted garbage	650 pounds/cubic yard
Burn box reduction	80 %
Cover material	10 %

Notes: % = percent

4.1.1 Waste Stream Components

Waste compositions are generally expected to follow production rates described in Table 4-2. These waste compositions are based upon the results of the 1993 Dillingham Solid Waste Characterization Study for the City . This document is provided in Appendix A.

Table 4-2 Estimated Community Waste Stream Components (Percentage)

Waste Type	Winter	Summer
Corrugated paper	20.5	35.7
Newspaper and white paper	5.2	1.5
Other paper products	15.3	4.0
Wood	3.5	7.9
Aluminum cans	2.2	2.5
Glass	3.9	3.1
Plastic	3.5	3.3
Trash	21.4	30.0
Garbage	24.4	12.5
Total	**100%**	**100.5%**

5.0 SOLID WASTE MANAGEMENT

5.1 COLLECTION

Dillingham Refuse Inc., a private firm, collects refuse three times a week. Refuse service is not mandatory. Other waste is "self-hauled" to the landfill.

5.2 WASTE SOURCE REDUCTION

Waste reduction is at the heart of the solid waste issue and generating less waste is the goal. Waste reduction is easily achieved through buying in bulk (reducing packaging), printing double-sided copies (reducing the amount of paper used), and using durable instead of disposable goods (durable coffee cups and canvas bags instead of foam cups and plastic bags). Proper use of a burn box at the landfill transfer station area will significantly reduce waste volumes deposited in the active cell.

5.3 WASTE SEGREGATION, REUSE, AND RECYCLING

Reusing, when possible, is preferable to recycling because the item does not need to be reprocessed before it can be used again. Reusing items by fixing them, contributing them to charity and community groups, or selling them, also reduces waste. One can reuse products more than once, either for the same purpose or for different purposes.

Recycling turns materials that would otherwise become waste into resources. After collection, the materials (e.g., glass, metal, plastics, and paper) are separated and sent to facilities that can process them into new materials or products. Recycling is a good way to reduce the amount of solid waste that is disposed of in the landfill, thereby, extending the life of the facility.

The senior center collects aluminum for recycling, and the local NAPA Auto Parts store recycles used batteries. The local chamber of commerce coordinates recycling of several materials, including fishing web.

Many materials, such as plastic goods and tin cans, are not currently recycled because of the high costs for backhauling such materials. The community could consider requiring the use of canvas bags instead of plastic bags to reduce waste generation. Durable bags made from post-consumer recycled (soda) bottles are also recommended.

Salvaging and recycling are effective means to reduce the amount of solid waste that enters the MSWLF. Junk vehicles, with batteries and fluids removed, can be placed in the salvage area. Non-biodegradable items that may have some salvage value, such as construction materials, appliances, and fishing gear, can also be placed in the salvage area. Typically, the community sorts, consolidates, and places cover on items at the salvage area once a year.

The Solid Waste Alaska Network (S.W.A.N.) (http://www.ccthita-swan.org/) lists various options for the recycling of toner cartridges for computer printers. Many companies will recycle inkjet cartridges at minimal cost.

5.3.1 Aluminum

The City currently has an accumulation area for aluminum cans at the transfer station. The senior center also accepts aluminum cans. The City has a barge company that backhauls the aluminum cans to a recycling facility in the continental United States.

Another option is the Alaskans for Litter Prevention And Recycling, a nonprofit organization that has organized a "Flying Cans" program with the Alaska Air Carriers Association. Member air carriers will backhaul aluminum cans free of charge when space is available on their flights. These cans are then picked up by the Anchorage Recycling Center, weighed, and the price of $0.20 per pound (2006 price) is paid for aluminum cans. A check will be written by the Anchorage Recycling Center to the City. There is no charge for this service.

5.4 BURNING

Burning is an effective way to reduce solid waste volumes deposited into a landfill. By removing the food waste element from the final waste stream, birds and scavenging animals are greatly reduced at the landfill cell. Items such as paper, cardboard, inert construction debris, and household food waste, should be disposed of in the burn box. A minimal amount of fuel oil may be required to start the burn. To prevent the creation of toxic smoke, it is important that residents separate out highly flammable or explosive wastes, hazardous wastes, plastics, and rubber from burnable wastes.

Before waste is moved from the transfer station to the burn box, it is checked for prohibited materials, such as batteries and fluids. The landfill operator will inspect the burn box for prohibited wastes prior to each burn. Burnable wastes are placed in the burn box. Any nonburnable (and otherwise non-prohibited) wastes will be removed from the burnable waste stream and placed at the active MSW cell, or other appropriate waste stream. Wastes will be sorted prior to burning to make sure that only appropriate, combustible wastes are burned.

The operator should wear protective gear and work boots during burns. Burns should be regularly scheduled because inefficient burns can result from overloading of the burn box. Regular (daily) burns will be done as much as possible to provide for more efficient burn operations and minimize precipitation accumulation in the waste. The operator will be present at the site for the duration of burn operations.

Burning should not occur on days when the wind is blowing strongly, and during high fire danger conditions. If smoke becomes a nuisance in the community on certain windy days, burning operations should cease until more favorable wind conditions occur. Ash should be lightly wetted once it is deposited in the landfill, to prevent scattering.

It is essential that wastes under pressure (propane tanks and aerosol cans) not be placed in the burn box in order to prevent explosions. Wastes that should not be burned include the following:

Asphalt	Large quantities of plastic	Oily wastes
Tires	Tars	Batteries
Fertilizers	Pesticides	Propane cylinders
Household cleaners	Linoleum flooring	Insulated wire
Aerosol cans	Plastic (polyvinyl chloride) piping	Creosote-treated wood
Asbestos-containing materials	Urethane or other plastic foam insulation	Lamps and light fixtures
Solvents (except those that are water and soap/detergent solutions)	Spill absorbents and contaminated soils that are classified as hazardous waste	Paints and glues (except those applied and dried on solid wastes)

The current (2006) volume reduction from burning is estimated at approximately 70 to 80 percent, according to the landfill operator. The City estimates that they produce an average of 15 tons of ash per month.

Ash is covered twice a week with cover material. The operating face of the active cell is typically kept to approximately 100 square feet in size.

Signs at the landfill transfer station area inform residents of waste disposal requirements, including wastes that are banned from disposal and wastes that are not allowed in the burn box. Flyers have been provided in Appendix C that can be posted throughout the community to inform residents about what types of wastes are allowed for disposal in the landfill.

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6.0 SPECIAL WASTE HANDLING

While most solid wastes may be burned and disposed of in the landfill, there are certain solid wastes that can or must be handled differently. Some wastes can be salvaged, reused, reduced, and/or recycled. In general, only household solid waste will be allowed in the landfill. Hazardous wastes are dangerous; hazardous wastes from commercial or industrial users are not allowed in the landfill under any circumstances. A material is hazardous if the label contains words such as flammable, corrosive, toxic, explosive, and/or volatile. The following sections describe how to handle all categories of waste, including special wastes.

6.1 ACCEPTABLE WASTES

6.1.1 MSWLF Cell

Solid waste accepted at the solid waste facility for disposal includes any materials permitted for disposal by ADEC. The following wastes acceptable for disposal in the active landfill cell are as follows:

- Domestic and commercial refuse;
- Ash from the burn area. Ash will be cold prior to disposal in the active waste cell; and
- Animal carcasses and fish wastes from subsistence activities (see below).

6.1.2 Animal Carcasses and Fish Waste

Animal carcass and fish wastes from sport and subsistence activities can be disposed of at the landfill. Small quantities of animal wastes (less than 100 pounds per day) must be double bagged and placed in the refuse container. Large quantities of wastes (100 pounds or more per day) will be placed in a trench within the active cell and covered with six (6) inches of soil at the end of the day, or otherwise treated to reduce the attraction of scavenging animals and birds.

In general, waste from subsistence harvests should be returned to their point of taking. If properly disposed of, very little waste from subsistence harvests, such as hunting, fishing, and berry picking, should be generated as solid waste. When such waste is generated, this waste should be immediately burned in a burn box.

Pet carcasses must be disposed of at the transfer station. Ash from incinerated carcasses is disposed of in the active cell on an as-needed basis. Carcasses from diseased animals must be taken to a state veterinarian.

During the height of hunting and fishing season, a container dedicated to receive fish and animal wastes may be placed at the transfer station to receive all incoming wastes. This will eliminate traffic to the landfill, but still allow for the disposal of these wastes into a dedicated trench at the landfill. Wastes will be covered with six (6) inches of soil at the end of the day that they are received, and otherwise treated to reduce the attraction of scavenging animals and birds.

6.1.3 Inert Wastes

Larger metal objects, such as appliances, will be placed in a designated inert waste area near the MSW cell. Any goods deemed salvageable will be separated into a specified location at the transfer station for the community to reuse. No charges will be incurred in the salvage of materials. The following wastes are acceptable for disposal in the active inert waste cell:

- Tires;
- Construction and demolition wastes, excluding asbestos- and lead-containing materials;
- Junk vehicles, white goods (appliances), and scrap metal. These must be drained of fluids, emptied of chlorofluorocarbons (CFCs), have batteries removed, etc.;
- Drums and steel tanks: Drums must be empty of fluids, cleaned, have one end cut off, and crushed prior to acceptance for disposal. Steel tanks must be empty of fluids, cleaned, have both ends cut off, and labeled "out-of-service" prior to acceptance for disposal. No residues of hazardous or liquid wastes may be present. The ends of the tank or drum must be removed and the tank must be crushed. Disposal of large tanks that require additional handling should be coordinated with the landfill operator. Large tanks may not need to be crushed (the ends must still be removed) if they appear to have remaining salvage value; and
- Nets, buoys, and other fishing gear.

6.2 Prohibited Wastes (Household Hazardous Waste and Other Wastes)

Prohibited wastes include: hazardous wastes as defined in Title 40 Code of Federal Regulations, Part 261.3 (40 CFR 261.3), acids, corrosives, solvents, liquid wastes, oily wastes, grease, paint, drilling mud, sewage, explosives, radioactive wastes, fuels, and unsterilized (infectious) medical wastes. The following other wastes are prohibited:

- Sewage sludge, septic tank pumpings, and honey bucket wastes;
- Liquid wastes from animal processing plants;
- Appliances containing Freon;
- Untreated medical wastes;
- Batteries will be collected at the transfer station, but will not be disposed of at the solid waste facility. Batteries detected through inspections or landfill operations must be handled and treated as described in Section 6.2.5;
- Used oil: Customers are not authorized to leave used oil at the solid waste facility. It should be delivered to the Dillingham Maintenance Shop. Orphaned containers of used oil will be collected, but will not be disposed of at the solid waste facility. Used oil detected through inspections or landfilling operations must be handled and treated as described in Section 6.2.3;

- Hazardous waste, human waste, and electrical transformers that contain polychlorinated biphenyls (PCBs); and
- Fuel-contaminated or other hazardous waste contaminated soil.

Persons wishing to dispose of materials that have been in contact with hazardous or special wastes must notify the City and obtain prior approval. The location of disposal sites will be noted on the landfill site plan and attached to this operations plan. The operator inspects solid waste at the transfer station for prohibited wastes, and removes these materials before sending solid waste to the burn box.

The Paint and Solvent Storage Area consists of two Conexes. The Paint and Solvent Storage Area is for the safe temporary storage of paints and solvents found during inspections, or while performing daily landfill operations. Other hazardous wastes, such as preservatives, photographic chemicals, corrosives, resins, adhesives, pesticides, herbicides, fuels, asphalt sealers, fluorescent light ballasts, ammonia, PCBs, and other commercial and industrial wastes are not allowed.

Common household items, such as paints, cleaners, oils, batteries, and pesticides, contain hazardous components. Leftover portions of these products are called household hazardous waste. These products, if mishandled, can be dangerous to health and the environment. Federal regulations permit the disposal of hazardous household waste into landfills. However, disposing of such waste is strongly discouraged at the Dillingham MSWLF. If necessary, the City will contact the ADEC at 907-465-5350 for assistance in determining what to do with a particular hazardous waste. A handbook on hazardous materials disposal for small businesses can be obtained from the U.S. Environmental Protection Agency (EPA).

If necessary, hazardous waste disposal, including manifesting requirements, can be coordinated through the following companies:

- Emerald Services (907-258-1558),
- Alaska Pollution Control, Inc. (907-344-5036), and
- Phillips Services (800-478-9008; 907-272-9007).

The following sections describe specific disposal requirements for many specific waste types:

6.2.1 Refrigerants

Refrigerators and freezers may contain CFCs, such as Freon, and their disposal is strictly prohibited. The units may be disposed of if the refrigerants are removed. Refrigerants must be shipped out of the community as hazardous waste. The EPA prohibits the release of refrigerant gases from appliances when they are disposed of. Refrigerators, freezers, and air conditioners must have their refrigerants or coolants removed by an EPA-certified technician. The solid waste operator could obtain this certification.

The S.W.A.N. provides a list of a number of Anchorage-based companies that can recycle refrigerants (http://www.ccthita-swan.org/main/recycling.cfm#2). If the community hired a

technician to remove these coolants, the recycling could be coordinated with nearby communities to reduce costs.

6.2.2 Vehicle and Vessel Antifreeze

Clean antifreeze should be used, or shipped out of the community as hazardous waste. Antifreeze should never be mixed with other solvents, oils, or other wastes. If antifreeze is mixed with other materials, it must be disposed of as a hazardous waste. The use of propylene glycol as a substitute for ethylene glycol is recommended, where possible. All clean antifreeze should be recycled. The Dillingham Maintenance Shop can receive and recycle a limited amount of antifreeze. The MSW cell can legally accept residential hazardous waste; industrial and commercial hazardous waste must be shipped out of the community.

6.2.3 Used Oil

Used oil is not accepted at the transfer facility. Used oil and used oil filters are collected at the Dillingham Maintenance Shop, which burns used oil in a waste oil heater. Residents may not mix other liquid waste, such as solvents or antifreeze, with their used oil. Oil contaminated with solvents or antifreeze must be shipped out of the community as a hazardous waste.

The City also crushes, bags, and disposes of used oil filters. Oil filters must be hot-drained and crushed, or incinerated prior to putting in the landfill.

6.2.4 Computers and Monitors

Computers and monitors contain items that are hazardous, such as lead and mercury and, as such, are considered hazardous waste. It is preferred that residents contact the manufacturer or the sales store for information about proper disposal. Households and some businesses are allowed to dispose of these items with typical garbage, but because of the toxic composition of these items, it is preferred that they be recycled or donated for others to use. If the materials are recycled properly, they are not considered hazardous waste.

6.2.5 Batteries

Used lead-acid batteries from vehicles, including snowmobiles, all-terrain vehicles, and boats, are a hazardous waste. State and federal regulations prohibit the disposal of lead-acid batteries in a MSWLF. Lead-acid batteries must be transported to a battery recycler (in Anchorage or out-of-state). Because lead-acid batteries are classified as corrosive, they can only be shipped on non-passenger air flights or barges. Batteries should be handled with protective gear. Used lead-acid batteries will be collected at the Dillingham Maintenance Shop during regular working hours, where they will be shipped to a battery recycler. Companies that currently recycle batteries in Alaska include the following two located in Anchorage:

- Battery Specialists of Alaska, 276-5251, and
- NAPA Auto Parts, 563-3637.

The City has two collection points for batteries – one at the landfill and the other at the harbor. Batteries detected during waste screening or landfilling operations will be stored at the designated area at the landfill in covered, leak-proof storage containers. Batteries will be stored upright and inspected for leaks and cracks. Cracked or leaking batteries will be placed in a separate acid-resistant, leak-proof container. The City will arrange shipping of batteries to an approved disposal or recycling facility. Batteries are currently shipped out of the community biannually by barge. Additional information on battery disposal is provided in Appendix C.

6.2.6 Paints and Solvents

Solvents and oil-based paints are regulated hazardous wastes and are prohibited from being disposed of at the landfill. These materials may not be burned. The best way to get rid of these materials is to use the materials for their intended purpose. Residential paints and solvents can be accumulated at the designated paint and solvent accumulation area; containers in this area are opened, and the contents dried or evaporated before disposal in the MSW cell. Paints and solvents from commercial or industrial operations must be shipped out of the community.

6.2.7 Ammunition and Explosives

Ammunition and explosives are not accepted at the MSWLF. The Dillingham Police Department should be contacted for disposal assistance.

6.2.8 Radioactive Waste

Radioactive waste is strictly prohibited for disposal. Additional questions regarding the proper handling and disposal should be forwarded to the U.S. Nuclear Regulatory Commission at (800) 952-9677.

6.2.9 Treated Timbers

Treated timbers must demonstrate that they are nonhazardous by passing the EPA's Total Characteristic Leaching Procedure (TCLP) test. Size is limited to eight feet in any direction. Acceptance is on a case-by-case basis.

6.2.10 Fluorescent Lamps/Fluorescent Light Ballasts

If fluorescent lamps or ballasts are marked "No PCB," they can be disposed of in the normal (nonburnable) waste stream. If the community wishes to recycle these lamps, the National Electrical Manufacturers Association provides a list of fluorescent lamp and light ballast recycling companies at: http://www.nema.org/lamprecycle/recyclers.html.

6.2.11 Smoke Alarms

Some smoke alarms may contain low-level radioactive materials. Ionizing smoke alarms are required to be returned to the supplier for disposal and may not be disposed of in the landfill. The manufacturer must accept unwanted alarms and arrange for their disposal. The returned alarm should be marked with "Return to Supplier." If the smoke alarm is photoelectric, or there are no instructions, residents can remove the batteries and dispose of the alarm as nonburnable garbage.

6.2.12 Fire Extinguishers, Propane Tanks, and Other Compressed Gas Cylinders

Before disposing of fire extinguishers, propane tanks, or other compressed gas cylinders, all pressure must be released and the unit must be checked to verify that contents are removed. Valves must be removed from the cylinders before they will be accepted at the landfill.

6.2.13 Asbestos (RACM)

Entities wishing to dispose of asbestos must contact the City to coordinate disposal. Disposal will be done in accordance with this SWMP and existing permit conditions. Asbestos disposal will be by appointment only. All costs associated with the disposal process will be borne by the customer. Specific disposal requirements are described in Section 7.7.

6.2.14 Medical Waste

Residents should take their medical waste, including sharps, to the hospital for disposal, or consult the hospital for proper disposal instructions. Medical wastes must be transferred to the Kanakanak Hospital for shipment and disposal. The hospital packages all "sharps" and body-fluid-contaminated materials and sends them to a medical waste disposal contractor for disposal. These materials are "red bagged" before shipment. The medical aides handle the packaging and shipment of these materials, and are properly trained in the handling of these materials. Kanakanak Hospital does not have a medical waste incinerator.

6.3 Liquid Waste

Bulk liquids or noncontainerized liquids are not permitted in the landfill, unless the waste is a household waste. Containers of liquids placed in the landfill will be limited to one gallon or less of liquid. Human liquid waste, such as septage waste, may not be disposed of in the landfill. Septage waste must be disposed of at the sewage lagoon.

6.4 Industrial Waste

The Dillingham MSWLF does not accept industrial waste.

7.0 OPERATIONS PLAN

7.1 IMPORTANT PHONE NUMBERS / SCHEDULE OF ACTIVITIES

A list of important phone numbers and a schedule of activities is presented prior to the introduction section (Section 1) of this SWMP.

7.2 OPERATING HOURS

The operating hours for the landfill are as follows (Effective April 1, 2001):

Friday through Tuesday

Noon to 6:00 p.m.

The landfill is closed Wednesday and Thursday, and on City Holidays. Facility hours are posted at the outside gate. Solid waste facility staff will be in attendance during operational hours. The operator's building will be manned at all times during operating hours.

7.2.1 Gates

Two separate gates limit access to the disposal area, and the transfer and burn box areas are fenced and gated separately. The main gate will be locked on days the landfill is closed.

7.3 TRANSFER STATION

The transfer station is the operator's main point to control materials entering the disposal facility. The function of the transfer station is to receive previously separated wastes from self-hauled commercial and residential customers, and to provide a series of separate transfer containers for customers to deposit their wastes into. The City will be responsible for managing the disposal of wastes from this point on. Burnables will be burned, refuse will be hauled to the landfill and buried, and recyclable materials will be recycled locally (e.g., used oil) or shipped to recyclers.

The transfer station consists of the following features:

- Gatehouse;
- Recycling containers;
- Paint and solvent storage area;
- Grade-separated disposal area for refuse and burnables;
- Container for refuse disposal; and
- Container for burnables disposal.

The transfer station will be attended at all times during operating hours. Users will enter the facility through the gatehouse. The operator will instruct the public on the location of various waste disposal areas and containers. Signs will direct users to the disposal areas. Self-hauled

refuse will be deposited into designated containers by the customer at the transfer station. Unless otherwise directed, the public will offload wastes at the grade-separated transfer facility where two containers (one for burnables and one for refuse) will be parked. The refuse container will be hauled to the active cell at the landfill for emptying once each working day, more often if required. Burnables will be hauled to the burn area as needed.

Containers for recyclables will be located adjacent to the disposal containers. Currently, materials identified for recycling include aluminum cans and batteries.

Exceptions to the above apply to:

Vehicles containing solely construction and demolition debris, and other wastes that meet the inert wastes criteria. These vehicles will be sent directly to the active inert wastes disposal cell across from the active landfill cell.

Commercial refuse trucks. Those trucks with nonburnable waste will be sent directly to the active MSWLF cell.

7.3.1 Operator's Responsibilities

- Implement the waste screening program described in Section 6.0 to check that no commercial hazardous waste is deposited in the landfill prior to disposal at an approved facility;
- Periodically question users about the nature of the wastes they are bringing for disposal. Advise users about acceptable and unacceptable wastes and direct users to appropriate disposal area;
- Screen haulers of nonresidential wastes about the contents of their loads. Nonresidential wastes include construction and demolition wastes, commercial refuse, industrial refuse, drums and soils. Complete the Non-Residential Waste Screening Form (see Section 7.22) and place in the operating record;
- Obtain documentation from haulers of medical waste ash certifying that ash has undergone a TCLP and does not contain any PCBs or toxic metals prior to accepting for disposal. Undocumented medical ash wastes are not to be accepted for disposal;
- Prevent unauthorized scavenging and salvaging of wastes by the public;
- Direct asbestos to the designated disposal area and follow all asbestos disposal guidelines in Appendix D;
- Direct appropriate wastes to the inert waste disposal cell. (See discussion under Section 7.22 for inspection instructions);
- Inspect the sump at the transfer station area daily to observe liquid level. If liquid is present in pumpable quantities, call for commercial vacuum truck removal. As directed by the City Public Works Director, the pumper will be required to dispose of liquid directly into the city sewage lagoon or into the sanitary sewer system at a location designated by the City;

- Assist with the operation of the recycling facility at landfill; and
- Used oil, batteries, and hazardous wastes will be handled as described in Section 6.0.

7.4 INERT WASTE DISPOSAL AREA

All haulers to the landfill will be subject to random hazardous waste inspections (discussed in Appendix C).

- Inert materials will be transported to the inert waste cell by the customer after first being inspected by the operator.
- Vehicles must discharge all other wastes at their designated disposal areas before proceeding to the inert waste disposal area.
- Scavenging will be at the sole discretion of the City and will be conducted at the discretion of, and under, the control of the City. Wastes accepted for salvage include: automobiles, snowmachines, four-wheelers, fishing equipment, scrap metal, pipe, etc.). Any cutting will be by the operator or under the operator's direct supervision.
- Inert wastes will be consolidated once a month during non-winter months when materials are still workable and snow cover is not deep enough to hinder operations.

7.4.1 Cover

- Inert wastes will be consolidated and covered with earthen material at least six inches thick.
- Inert wastes will be covered twice each year, in spring after thaw and in fall before freeze-up. Cover will be graded to promote drainage of the cap.
- A final cap of 2 feet of fine-grained earthen materials and topsoil will be placed over the cell when it has reached capacity, or is closed. The cap will be graded to promote runoff and revegetated.

7.4.2 Operator's Responsibilities

- Direct users to discharge all other wastes at their designated disposal areas before proceeding to the inert waste disposal cell;
- Stockpile all items (e.g., refrigerators and freezers) that contain CFCs in a neat pile, separate from other white goods. Arrange for the removal of CFCs with an authorized agent prior to final disposal of the items in the inert wastes cell;
- Prevent unauthorized scavenging and salvaging of wastes by the public; and
- Check that junk vehicles accepted for disposal are drained of all fluids, fuels, and oils, and that batteries are removed prior to their disposal. Vehicles without liquids and batteries removed will be accepted, but the City will reserve the right to charge a fluid removal fee. The operator or a designated contractor will be responsible for removing any liquids or batteries detected during the check, and for storing and disposing of

them as described in this section. See the "*Vehicles, White Goods, and Miscellaneous Equipment Disposal Report Form*" in Appendix E for additional instructions.

7.5 SOLID WASTE LANDFILL

The solid waste landfill is located at the end of the landfill access road. Access to the landfill is controlled by a locked gate. The landfill will generally not be open to the public. Direct access to the landfill may be authorized for the following circumstances:

- Commercial waste haulers hauling MSW – the hauler must obtain prior authorization from the City to arrange access and to determine the conditions of disposal;
- Disposers of more than 100 pounds of animal carcasses and/or fish wastes from subsistence activities – for health and safety reasons, the City may require disposers of subsistence animal carcasses and fish wastes to take wastes directly to a designated disposal area at the landfill, or directly to the burn area. Animal carcasses and fish wastes generated by commercial or industrial operations are not addressed, and would require ADEC approval and amendments to the SWMP and Operations Plan; and
- Other exceptions, as determined by the City – this may include large quantities of construction/demolition debris unsuitable for the inert waste monofill (e.g., drywall materials), asbestos, fire debris, etc.

All haulers to the landfill will be subject to random hazardous waste inspections (discussed in Section 7.22.2). Solid wastes collected at the transfer station will be hauled to the landfill for disposal on a daily basis on days the landfill is operating, and more frequently if required. A small generator will remain on site to plug in block heaters during colder weather.

7.5.1 Waste Consolidation and Cover

- Waste will be consolidated and spread in lifts (layers) 2-feet thick. The lift will be compacted by running equipment over the area with a minimum of three (3) passes.
- When the total depth of the lift reaches 10 feet or, at a minimum, at the end of each working day, the operator will apply a cover layer of approximately 6 inches of soil. A cover layer will be applied at the end of each working day (i.e., any day that waste is received either from the commercial operator or during hours of public operation) throughout the year. The working face of the cell will be developed with a design slope of 28 degrees. Figure 2 shows the cell configuration. The perpendicular height of the working face will not exceed 10 feet. The width of the exposed face will not exceed 75 feet.
- Wastes will not be placed in accumulated surface water. Drainage controls, such as berms and ditches will be maintained to prevent surface water runoff entering the facility.

7.5.2 Inclement Weather/Seasonal Operations

A goal of the solid waste program is to minimize the landfill's impact to groundwater. To this end, it is important that the operator take steps that will limit the amount of rainfall that the waste is exposed to prior to burial.

- Wastes accepted at the transfer station are under cover while in the transfer area. Wastes will only be transported to the landfill when the operator is ready to cover the wastes as they are unloaded at the working face.
- During wet weather, it will be important for the operator to diligently cover wastes as they are brought to the active cell for disposal.
- Excessive moisture during thaw or extended periods of wet weather may make the silt soils that form the base of the active cell difficult for operations. It may become necessary to place a temporary driving surface of imported gravels or pit run materials on the floor of the cell during excessive moisture conditions, so that equipment and trucks can approach the working face.
- During the fall, as freeze commences, it will be important to manage the soil stockpiling and excavation such that locally available soil cover is used for as long a period as possible into the fall and winter season. The following techniques will help extend the period that on-site cover materials are workable:
  - Leave cover materials in a bank or large stockpile, rather than a smaller stockpile, until they are needed.
  - Limit snow removal in cover excavation areas to only what is needed on a daily basis.
  - Use proper sized equipment to excavate through the frost layer.
  - Keep snow out of the open face area.
- During periods of extended freeze the locally available silt may not be suitable for excavation and daily cover. To ensure that daily cover is available for use, gravel materials from city-owned sources or other sources will be stockpiled in quantities necessary for daily cover operations.
- During the spring breakup season, it is important to manage operations such that spring melt is directed away from the open face and that accumulations of snow are removed prior to melt to avoid a water or leachate problem during breakup. Use of on-site silts for cover operations can be commenced prior to a general spring thaw as follows:
  - Remove snow from cover material source to take advantage of the solar gain on dark soils. This will tend to thaw several inches to a foot per day of material.
  - Excavate the surface of unfrozen material over a relatively wide area with a bulldozer blade and apply to wastes.
  - Repeat daily with previously thawed material.

7.5.3 Operator's Responsibilities

- Control size of working face and application of cover material to minimize the attraction to wildlife and domestic animals.
- Minimize the height and width of the working face to the extent practical. The working face height will not exceed 10 feet and the working face width will not exceed 75 feet.
- Remove snow from the disposal area prior to spring snow melt and deposit in an area away from the working face. Apply final cover to the cell within 90 days of the last waste deposited in the cell.
- Compact wastes daily and apply six (6) inches of cover at the end of each working day throughout the year. Use locally available silty soils when thawed conditions allow. Use improved gravel materials for daily cover operations when required by freezing conditions. See Section 7.5.2 on Inclement Weather / Seasonal Operations.
- Direct asbestos to the designated disposal area and follow all asbestos disposal guidelines.
- Incinerate most animal wastes.
- Gather orphaned containers of used oil left at the transfer facility to the Dillingham Maintenance Shop. The operator will be responsible for removing used oil left at the transfer station or other area of the facility to the Dillingham Maintenance Shop promptly after its detection. The operator will keep a record of used oil collected. Sorbent materials will be kept at the facility for spilled oil cleanup. Used oil will not be stored or disposed of in the landfill disposal cells. It will be the responsibility of the operator to notify the City in the event that any oil is spilled on the ground.

7.6 BURN AREA

The designated burn area is approximately 1,500 feet from the gatehouse and is accessed from the road that connects with the landfill. Procedures for the burn area will be as follows:

- Burnables will be collected in a separate container at the transfer station and hauled to the designated burn area. Burning will only occur in the burn box.
- There will be no burning outside the controlled burn area, including at the landfill working face, the inert waste area, or the transfer station.
- A wind sock will be installed on site to show wind direction.
- Burn operations will be monitored at all times.
- Burns may be initiated with an accelerant (diesel fuel).
- Burning will only occur if winds are less than 20 miles per gallon, and only if the wind direction is from 100° clockwise through 350° azimuth direction, to minimize downwind impacts to the Ahklun View and Lars D. Nelson subdivisions.

- There will be no burning when northerly and northwesterly winds are blowing stronger than 17 knots (20 miles per hour).
- Ash will be disposed of in the landfill.
- Large quantities of wood and paper products may not be burned at once to prevent warping and damage to the burn box. Certain treated (all-weather) wood cannot be burned, and must be separated from the burnable materials.

7.6.1 Operator's Responsibilities

- Monitor burn for smoke production, wind direction, and completeness of burn.
- Make sure that ash is cold prior to removal from the burn facility and disposal in the active waste cell.

7.7 ASBESTOS DISPOSAL

Asbestos waste is regulated and has detailed handling and disposal requirements. Alaska's regulations for monofill disposal of RACM are found in 18 AAC 60.450. Federal requirements for disposing of RACM are found in 40 CFR 61.141 - 157. The federal standard for active asbestos disposal sites, the standard that is most applicable to an asbestos monofill operator, is found in 40 CFR 61.154.

In accordance with the Class II Landfill Permit, RACM are allowed to be disposed of at a separate inert waste monofill at the municipal landfill under certain conditions, and under authorization from the City. Asbestos will be stored in Conex containers, Tri-Wall® boxes, or similar containers to meet daily cover requirements for RACM. Asbestos containers must be closed and locked when disposal is not taking place. These containers must be closed and locked at the end of each working day. Coordination for shipment and disposal of RACM at the landfill must be coordinated with, and approved by, the City. The general public (and therefore salvaging) is not allowed along the access road from the burn box to the salvage area when RACM is being transferred to the asbestos disposal area.

Signs identifying the cell as an asbestos disposal site will be posted. The lettering will be one-inch or taller and will read as follows:

ASBESTOS DISPOSAL SITE
DO NOT CREATE DUST
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

7.7.1 Receipt of Asbestos Waste

An operator will be on hand to receive asbestos waste. The operator will provide access for disposal vehicles, assist vehicles in and out of the disposal area, complete the manifest forms that accompany the load, and place cover materials after disposal has been completed, at a minimum, at the end of each working day. This person will check that the waste is properly bagged and sealed and that the bags or containers are not damaged.

All regulated asbestos waste must be accompanied by an EPA Asbestos Waste Shipment Record for RACM. RACM lacking the appropriate paperwork will not be accepted.

A record of the name of the organization/individual disposing of the waste, the hauler, and the quantity (size and number of bags or containers) of waste accepted for disposal will be maintained. Copies will be retained onsite by the landfill operator and at the City office.

7.7.2 Damaged or Improperly Packed Asbestos Waste

The landfill operator will notify ADEC and the EPA if waste presented for disposal has not been properly packaged. Wastes that have not been properly prepared will not be accepted for disposal.

7.7.3 Daily Cover Requirements

In order to meet the daily cover requirements for asbestos-containing material (ACM) disposal (minimum daily cover of 6-inches of asbestos-free material), the City will entomb all ACM received at the ACM cell within one or more Conex or Tri-Wall containers. The containers will be closed and locked at the end of each day, and will not be open unless asbestos disposal operations are in progress.

If no ACM is anticipated for the next 12 months following receipt of the waste, 24 inches of interim cover material will be applied on the ACM storage unit within 90 days.

7.7.4 Reporting

The exact location of the ACM cell will be surveyed when the cell is developed. The City will provide ADEC with the true location when this has been done. The City will maintain a log of ACM wastes received (including location and volume). The City will submit this information to ADEC when the ACM cell is closed.

The location of the ACM cell will be recorded on the land title or deed document. Should the property be sold, the new landowner will be notified that ACM has been buried on the property and that it would be hazardous to excavate the area of the disposal cell. A permanent series of monuments indicating the limits of ACM disposal will be placed on site. The ACM cell will be inspected as part of the regular visual inspection program for signs of damage (e.g., erosion, settling) to the cover, sideslopes, vegetation, and drainage.

7.7.5 Other Specific Requirements

Specific requirements for the operator and the City include:

A. Anyone working in contact with asbestos must meet the worker safety and asbestos handling requirements in 29 CFR 1910.1001.

B. If a certified worker must sample any waste suspected to contain asbestos, do not allow the use of envelopes or plastic and paper bags. Such containers can act as bellows when opened and can expose everything and everyone to airborne fibers. Follow the sampling and safety procedures in 29 CFR 1910.1001, Appendix J.

C. The permittee or designated representative must be present at the site to supervise the disposal.

D. The landfill operator must maintain a log of the source and quantity (in cubic yards) of asbestos delivered. Landfill operators should require the driver to sign in and sign over a chain-of-custody or waste manifest form. The facility owner must maintain shipping manifests and all other records pertaining to the asbestos containing waste.

E. Vehicles with waste compactors should not be used to haul bags or other containers containing asbestos.

F. Friable asbestos waste must be thoroughly wetted and placed in leak-tight containers before transport and burial. Containers may be barrels, drums, or plastic bags that are 6-mil thick or thicker. If plastic bags are used, double bagging is recommended.

G. Loads must be inspected to verify that friable asbestos waste is properly wetted and contained in leak-tight and appropriately labeled containers. Improperly containerized waste received at the disposal site should be covered immediately after unloading. The operator should then contact ADEC and the EPA. The number for EPA's asbestos staff is 907-269-4954 in Anchorage, and 206-553-1757 in Seattle.

H. All containers for friable asbestos waste shall have the following warning label:

CAUTION
CONTAINS ASBESTOS FIBERS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

or:

CAUTION
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
BREATHING ASBESTOS DUST
MAY CAUSE SERIOUS BODILY HARM

I. Nonfriable asbestos waste material must be buried in the designated asbestos disposal area in a manner that does not result in the release of asbestos dust. There are no regulations that require nonfriable asbestos to be packaged or labeled, but in some cases packaging may be necessary to prevent the release of asbestos dust that can result from crushing or abrasion. The generation of asbestos dust from nonfriable asbestos is a violation of National Emission Standards for Hazardous Air Pollution. Disposal of nonfriable asbestos material into a normal waste stream, such as municipal solid waste, creates a high potential for generating asbestos dust and is not permitted.

J. To ensure that there will be no unauthorized contact with the waste and no chance for asbestos to escape, the operator will close the Conexes or Tri-Walls containing RACM within 24 hours of waste disposition (preferably immediately).

K. Final closure of an area containing asbestos waste requires at least an additional 30 inches of compacted non-asbestos material to provide a 36-inch final cover. Areas that will not receive more asbestos waste within one year must be covered in this manner

within 90 days of the last deposition. Additional cover may be required in areas subject to erosion, or to shrink-swell fissures resulting from extensive frost action or dehydration of certain clays. In areas where vegetation is difficult to establish and maintain, 3 to 6 inches of well-graded, crushed rock may be needed on top of the final cover.

L. The cover of a closed asbestos waste disposal site shall maintain the integrity of the soil cover, slopes, vegetation, and drainage structures.

Additional very specific requirements for asbestos disposal are presented in Appendix D.

7.8 FACILITY-WIDE OPERATOR'S RESPONSIBILITIES

- Maintain all landfill and operations, and support facilities access roads. This includes grading and plowing to provide year round access to the transfer station and disposal cells for refuse trucks and other vehicles.
- Collect all windblown litter and refuse from the disposal site and along the access road once a week, or as needed, and return it to the active disposal cell for burial. Wastes on lands within 500 feet of the site and along the access road, whether windblown or dumped, will be collected and disposed at a frequency necessary to prevent litter from becoming and aesthetic nuisance. Litter accumulated in areas from where snow is removed will be cleaned up at the end of winter.
- Monitor dust conditions during dry periods for dust control. Contact the Public Works Director if blowing dust from solid waste facilities becomes a problem. A watering truck will be available to dampen problem areas. Do not apply water directly to waste disposal storage areas or on adjacent areas that may drain to waste disposal/storage areas.
- Perform inspections (see Section 7.17) and monitoring (see Section 7.20, 7.21, and Appendix E) as directed by the City Public Works Director.

7.9 RECORDKEEPING

The City will be responsible for maintaining records of the following activities:

- Permit application and current permit;
- Facility as-builts;
- Operations Plan;
- Monitoring plans for groundwater, landfill gas, and ash;
- Site Development and Use Plans showing portions of the solid waste facility where wastes have been disposed and status (active, interim closed, closed) of cells;
- Gas-monitoring results;
- Ash-testing results;
- Groundwater monitoring results;

- Photographs;
- Inspection reports;
- Training records;
- Asbestos waste disposal manifests; and
- Unauthorized used oil, if any, left at the solid waste facility.

Copies of the records will be kept at the landfill and at the City offices.

7.10 Site Development and Seasonal Activities

7.10.1 General Site Development Guidelines

The following guidelines describe in general terms site development of new cell areas, site preparation for winter, and spring breakup activities.

- Clearing and grubbing: Within each area, all timber will be cut and stumps grubbed. Wood wastes will be burned onsite or placed in the inert waste cell.
- Stripping: Immediately prior to excavation of a new cell, the top two feet of organic materials will be stripped. Materials will be stockpiled within the limits of solid waste placement in locations that have not been exploited or locations that have received an interim cap, or outside of the active landfill area for use as final cover material.
- Daily cover: On-site silty materials excavated as part of each cell development will be used. Six (6) inches of cover will be applied at the end of each day, or as winter conditions permit.
- Intermediate cover: Areas of the landfill that are not scheduled to receive wastes for 90 or more days will be covered with 12 inches of intermediate cover.
- Drainage: Access road drainage, drainage from undeveloped areas, and drainage from interim closed areas will not be allowed to run into active cells. Drainage from active cells will not be allowed to escape out of the cell operations boundary. The road frontage of each cell will be protected with a berm or ditch, which prevents road drainage from entering the cell or vice versa.
- Fall freeze-up: All wastes (landfill and inert waste cell) will be consolidated and covered with 6 inches of intermediate cover prior to freeze-up. Only cells needed during winter waste disposal operations will be left open. Ditches on interior roadways will be cleaned and other areas as required.
- Winter operations: Wastes will be consolidated to the extent practical and covered with earthen materials for as long as frost depth does not preclude excavation for daily cover. Because of high moisture content and the nature of silt, ripping or blasting and handling the silt in the winter months may not be feasible.
- Spring breakup. Snow will be removed from working areas. Roadway ditches will be regraded to promote runoff, as necessary. Wastes placed in winter will be

consolidated and covered per requirements. Any slope or cover repairs needed will be made.

- Completed cells that have received a final cover will receive a vegetative cover within one year after the interim cover is placed. See Dillingham Landfill Closure Plan (Appendix B).

7.11 Facility Maintenance and Cleanup

The landfill operations yard, access road, and landfill area will be kept neat and free of litter. Windblown and littered refuse will be collected at least once a month, or more frequently if necessary, and returned to the active cell for disposal. Litter and wastes on lands within 500 feet of the site and along the access road, whether windblown or dumped, will be collected and disposed of at a frequency necessary to prevent the litter from becoming an aesthetic nuisance. If blowing wind is a problem, portable litter fences will be placed at appropriate locations near the working face to help contain blowing litter. Load entering the landfill will be required to be covered or confined.

The area surrounding the burn facility will be kept clean and free of litter and ash. All ash and residues will be removed after each burning operation when cold, and disposed of in the landfill cell. The operations building and all other structures will be cleaned as needed to maintain safe operations.

An adequate stockpile of cover materials for fire control will be maintained at the burn facility, inert waste cell, and landfill. No hot (live) ashes or embers will be placed in, or near, the active landfill cell.

7.12 Residential Customers

The landfill operator's building is located at the transfer station. Customers will be instructed to sort their waste so that any burnable items are placed in a separate bin and brought to the burn box. Nonburnables will be placed in the appropriate bin and disposed of at the active cell.

Vandalism, including target shooting, is strictly prohibited at any of the City's solid waste facilities.

7.13 Commercial Rates

The following are commercial rates for the landfill (Effective June 15, 2006):

Residential Rates (2006)	
Trash bags, 30-gallon maximum or three bags not to exceed 1 cy	$3 per bag
Auto/Pickup trucks/Small flatbed	$20 (2.75 / cy), $7/cy, $50 per visit uncovered

Commercial Rates (2006)	
Pickup trucks	$25 ($2.88 / cy) $50 per visit uncovered
Flatbeds (12 feet or longer)	$75 ($12.8 / cy) $8 cy, $150 per visit uncovered
Dump truck	$250 ($14.25 / cy) $8.75 cy per visit covered, $500 per visit uncovered
Asbestos	Negotiated
Contract hauler	$11/cy (compressed garbage)
Junk Vehicles: With battery and fluids Battery and fluids removed	Not Accepted $50 per vehicle
Refrigerators and Freezers: With CFC's Without CFCs	$75/unit $50 per unit
Trailers	Fees will be determined using above fee structure

Notes:
cy = cubic yards
CFCs = chlorofluorocarbons

The City enforces substantial penalties for uncovered loads. There is no charge for the disposal of fish waste from subsistence fishing. There is a charge of .05 cents a pound for fish waste from commercial set net fishing.

7.13.1 Commercial Haulers

The commercial hauler will check in with the operator. They will proceed directly to the burn box if the waste can be burned, the salvage area if the waste can be salvaged, or the waste disposal point at the landfill if the waste cannot be burned or salvaged.

7.14 Disposal of Municipal Waste

Solid waste is collected and hauled to the landfill in two ways: self-haul and commercial-haul collection. Most residents and many businesses self-haul to the landfill. The private waste hauler in the City provides services mainly for commercial businesses, but also some residential customers. Customers are provided with dumpsters by the waste hauler, ranging in size from 2 to 8 cubic yards.

Solid waste is brought to the transfer station, where it is deposited into open dumpsters. Wastes deposited into these boxes are transferred to the burn box for incineration. Once the waste is burned for approximately 16 hours, the ash/unburned waste is transferred to a second burn box to smolder and further reduce waste volumes. Once the waste is completely burned, it is transferred to a dumpster to cool. Once the waste has cooled sufficiently (generally for approximately three days), the waste is then transferred to the active working face of the municipal landfill cell. The operator makes the decision as to where the active face of the cell will be.

Waste, both ash and unburned, is covered weekly with six inches of low-permeability soil. The working face will be kept as small as possible. The landfill will be regularly graded to prevent ponding. A bulldozer will compact waste as needed, typically daily. Visual monitoring is completed and documented at least monthly.

Waste from Dillingham Refuse, Inc., is compacted, but not screened prior to going into the burn box. No one has access to the landfill on days that it is closed. Cover material is applied to the waste during the summer; cover operations are more difficult in the winter because the materials are frozen.

7.15 WASTE COVER

After consolidation and compaction, a bulldozer will be used to place a cover of a sand/silt material over the waste. There are two kinds of cover operations: intermediate cover and the final cap, as described below. Cover material will be stored adjacent to the active MSW cell. Proper monitoring and inspections will ensure that cover and cap material is properly maintained. Inspection forms are provided in Appendix E.

7.15.1 Intermediate Cover

Intermediate cover will be placed over the waste, as needed, to a minimum thickness of 6 inches. The purpose of intermediate cover is to keep rodents, birds, flies, and other disease-carrying animals out of the waste. Over time, layers of waste will be built upon each other, with a layer of intermediate cover between them, until the usable height of the landfill has been reached. At this height, a layer of final cover (a cap), will be applied. Intermediate cover is not practical during winter months. The use of intermediate cover will begin in late spring, after breakup.

7.15.2 Final Cap

The final cap is the last layer of cover placed over a cell that is full of multiple layers of consolidated, compacted, and covered waste. The final cap will be a minimum of 2 feet thick (20 inches of local sand/silt and 4 inches of topsoil to reestablish vegetation), to ensure that the waste will remain covered as it settles over time.

The final cover will consist of a sand/silt material from a permitted borrow site. This material is moderately impermeable and should be graded and compacted to the grades specified in the Dillingham Landfill Closure Plan. A 4-inch minimum layer of organic topsoil will be used to reestablish vegetation. The final cover will be revegetated with a seed mix specified in the Dillingham Landfill Closure Plan. Final cover is required at the closure of each cell and will typically be done in summer months. Revegetation with the seed mix should occur before August.

7.15.3 General Cleanup

Windblown litter will be controlled through burning and the installation of a perimeter fence. Burnable waste will be placed in the burn box. The City will try to minimize the quantity of lightweight waste susceptible to being blown around by disposing of it directly in the landfill.

Waste Consolidation, Compaction Operations, and General Cleanup

Duties include the following:

- Consolidating waste into a layer approximately 2- to 3-feet deep;
- Compacting the waste by driving over it several times with a bulldozer or other heavy equipment; and
- Picking up windblown litter around the fence and along the access road.

7.15.4 Monthly Operations

Waste Cover Operation

Duties include placing six inches of cover material over the compacted waste. This should be done on a monthly basis, at a minimum, during the warmer months. [Note: When the ground is frozen, waste cover is not possible. Consolidating and compacting waste will be continued during this time.]

7.15.5 Annual Operations

Spring Waste Cover and Salvage Area Cleanup

Duties include the following:

- After spring breakup, the waste will be consolidated, compacted, and covered; and
- Any items in the salvage area that have no value will be moved to an inert waste cell adjacent to the main landfill cell.

Stockpile Cover Material

Some stockpiling of cover material may occur in the fall prior to freeze-up.

7.16 Solid Waste Monitoring

The access road to the landfill is monitored weekly for solid waste. This waste is removed if discovered. The area surrounding the burn box, transfer station, salvage area, and MSW cell are monitored for waste every spring, as a minimum

7.17 Site Inspections

The operator will make weekly visual inspections of the Solid Waste Facilities (Refer to the Inspection Forms in Appendix E). The four main areas to be inspected are the:

- Transfer Station,
- Burn Facility,

- Inert Waste Disposal Area, and
- Landfill.

Visual inspections will be conducted monthly, as weather permits, and will include the following:

- Condition and size of the working face;
- Condition of the burn box;
- General condition of facilities, including access road, equipment building, signs, berms, fencing, and gates;
- Dumping and disposal locations for specific types of waste to check that wastes are being disposed in their proper areas;
- Special waste storage areas, such as the paint and solvent storage unit, battery storage area, and recyclables collection area;
- Adequacy of cover material;
- Signs of damage or potential damage from settlement, ponding, thermal instability, frost action, leakage, erosion, or operations;
- Surface water drainage for ponding or runoff onto the active waste cell, closed cells, or other storage areas;
- Litter accumulation and control measures;
- Condition and maintenance records of solid waste equipment (tracked bulldozer, front-end loader);
- Evidence of fire or combustion in the landfill waste;
- Burn facility, including screening for items that are not allowed;
- Escape of waste or leachate, or any unauthorized waste disposal;
- Snow accumulation on waste disposal areas; and
- Monitoring well casings.

The City will be responsible for corrective actions of any discrepancies identified. Any damage from settlement, ponding, leakage, erosion, or operations must be immediately repaired. The area within 500 feet of the landfill property boundary and 50 feet of the access road will be inspected for litter twice a year (in the spring and fall) at a minimum. Waste from these areas will be removed and placed in the landfill.

A "visual inspection form" for monthly inspections is provided in Appendix E. This form will be retained as the original and copies will be made to use during inspections. The following details must be completed:

- Name of the person making the inspection,
- Date and time the inspection (morning or afternoon) was made, and
- Weather conditions.

Completed forms will be placed in the landfill operating record.

7.18 Salvageable Waste

Salvageable waste, such as tires, cars, clean wood, appliances, and inert metal may be deposited at the salvage area. Residents are responsible for hauling these materials to the salvage area. Cars are dropped off at the transfer station and inspected by the City for batteries and fluids prior to transportation to the salvage area. Cars must be drained of all batteries and fluids, including oil filters, antifreeze, brake fluids, oil, diesel, and gasoline before disposal. These fluids must be recycled or shipped out of the community. Usable tires should be removed from the vehicle during disposal and placed in the tire disposal area of the salvage area. Cars with no salvageable value will be crushed.

Appliances must have all Freon removed prior to disposal. The Dillingham Solid Waste Operator will be trained and EPA-certified in the removal and disposal of refrigerants.

7.19 Recordkeeping

The City is responsible for maintaining landfill operating records. Records for the landfill should be kept in the City office where they will remain available for review by employees and ADEC. The records include: the permit application, this Plan, the Dillingham Landfill Closure Plan, inspection records, staff training records, and as-built drawings of the landfill.

Operator duties vary weekly, monthly, and annually. Listings of activities and checklists are included with the inspection forms in Appendix E.

7.20 Water Monitoring

Groundwater monitoring will be conducted in the spring and the fall. Groundwater monitoring reports will be submitted to ADEC within 60 days of receiving the monitoring results. Surface water monitoring is not required.

7.21 Gas Monitoring

In accordance with 18 AAC 60.350, the City is required to monitor for methane gas within facility structures and at the boundaries of the landfill. The locations of wells used for gas monitoring are shown in Figure 1. Gas monitoring will be performed quarterly by the City in accordance with ADEC requirements. ADEC shall be immediately notified if methane gas is detected at the lower explosive limit (LEL) (or 25 percent) for methane. Routine monitoring may be required at a later date, once the landfill capacity has reached 30,000 cubic yards of MSW. Thermal monitoring is not required.

7.22 WASTE SCREENING

7.22.1 Nonresidential Waste Screening

All haulers of nonresidential wastes will be screened about the contents of their loads. Nonresidential wastes include:

- Construction and demolition wastes;
- Educational facility wastes;
- Medical facility wastes;
- Government office wastes;
- Commercial refuse (e.g., supermarkets, airport terminals, etc.);
- Light industrial refuse (e.g., seafood processors, fabrication shops, auto and mechanical repair shops, boat building, and repair businesses, etc.); and
- Drums.

Haulers of medical waste ash must supply documentation certifying that ash has undergone a TCLP test and does not contain any PCBs prior to acceptance for disposal. Undocumented medical ash wastes are not to be accepted for disposal.

For each load, the "*Non-Residential Waste Form*" must be completed and signed by the waste hauler. The operator will retain copies of all screening records and place them in the operating log. The operator will notify both the ADEC Southcentral Regional office and the City Public Works Director if a regulated hazardous waste is detected.

7.22.2 Random Hazardous Waste Detection Program

- The Operator will implement a random screening program to detect and prevent the disposal of regulated quantities of hazardous wastes in the landfill.
- The Operator will perform random inspections of incoming loads to check for regulated hazardous wastes.
- The Operator will follow the steps identified in the decision tree in Figure 3 when performing inspections.
- The Operator will make records of all inspections performed and retain these in the operating log.
- The Operator will notify both the ADEC Southcentral Regional Office and the City Public Works Director if a regulated hazardous waste or PCB waste is detected.

7.22.3 Random Inspection Schedule

Hazardous wastes generated by households are exempt under 40 CFR 261, and do not need to be inspected. Only hazardous wastes generated by non-households, such as stores, businesses, automotive shops, etc., are subject to random inspections.

Random inspections will be conducted four times per year. Inspections will be performed according to the methods recommended in *Waste Screening at Municipal Solid Waste Management Facilities* (Solid Waste Association of North America, October 1994).

7.23 METHANE GAS MONITORING PLAN

7.23.1 Regulatory Requirements

Methane gas concentrations are not allowed to exceed 25 percent of the LEL for methane in landfill facility structures (excluding gas control or recovery system components) and may not exceed the LEL for methane at (or beyond) the facility property boundary. The LEL is the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25°C (77°F) at atmospheric pressure.

7.23.2 Monitoring

The gas monitoring program is designed to detect accumulations of methane gas at the concentrations described above, should they occur. The operator will monitor ambient air concentrations with a combustible gas meter calibrated to read between 0 and 100 percent of the LEL for methane gas. Equipment will be checked before each sampling program for proper operation and calibration. The sampler will check areas of potential gas accumulation by inserting the probe into the area to be sampled. The following areas will be sampled:

- All monitoring wells,
- The surface of any open or closed cells, and
- Other locations, as needed as the landfill develops in the future.

Monitoring will be performed four times per year: (1) in May during breakup, (2) August, (3) November, and (4) February, or as directed by ADEC. Data will be entered onto a record form and the information will be retained in the landfill operating record, and at the City offices.

7.23.3 Reporting and Corrective Action

The operator will notify both the ADEC and the City public works director if methane levels exceeding the limits specified above are detected. Immediately upon detecting levels of methane, the operator will take the following action:

- Post warning signs in the area where methane was detected;
- Restrict access to the area to exclude unauthorized persons; and
- If appropriate, vent the area.

7.23.4 On-site Structures Monitoring

- Vacate potential methane-impacted buildings for a period of time determined to be appropriate by emergency officials.

- Monitor building to determine the extent and source of the methane. Remedial actions may be necessary.
- After remedial action has been taken, monitor building on a daily basis for a period of one week to determine if further mitigation measures are needed.

7.23.5 Facility and Property Boundary Monitoring

- If necessary, contact neighboring residents and any underground utility owners within 1,000 feet of affected areas.
- Monitor affected area for a period of one week to measure methane concentrations.
- If methane measurements are positive, monitor adjacent areas for one week.

Within seven days of detecting the gas, the operator must make an entry in the operating record that identifies the location gas was detected, states the levels of methane gas recorded, and describes the steps taken to protect human health.

Within 60 days of detection, a remediation plan for gas releases must be implemented. A copy of the plan must be placed in the operating records, and ADEC must be notified that the plan has been implemented. The plan will describe the nature and extent of the problem and the proposed remedy. This gas monitoring plan will be modified as required to meet current state and federal regulations.

7.24 PHOTOGRAPHIC RECORDS

The following photographs must be taken:

- Photograph the waste disposal site (these photographs must be submitted to ADEC within 60 days of closure):
  - As prepared for waste disposal prior to first use,
  - At least once per year during waste deposition, and
  - After final cover has been received;
- Photograph the waste disposal site (these photographs must be submitted to ADEC 1 year of closure): After revegetation during the summer following closure;
- Photograph the transfer facility, burn facility, inert waste cell, landfill, asbestos cell (when operational), and fencing twice a year, once in spring and once in mid-winter; and
- Photograph the groundwater monitoring wells, surface water monitoring sites, and gas monitoring wells each time a round of monitoring is performed.

Copies of all photographs must be placed in the landfill operating record.

8.0 REFERENCES

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