# Pend Oreille County

# SOLID WASTE MANAGEMENT PLAN UPDATE

# December 21, 2009

# Prepared for

**Pend Oreille County Public Works**

**Solid Waste Department**

**P. O. Box 5041**

**Newport, WA 99156**

**Prepared by**

**Randy Knight, P.E.**

**Sheila Pachernegg, P.E.**

**P. O. Box 128**

**Spokane, WA 99210**

**Tel/Fax: 509-487-4399**

# TABLE OF CONTENTS Page

**Section 1.0: EXISTING CONDITIONS SUMMARY……………………………………. 3**

Introduction

Background Information

Municipal Solid Waste Generation Summary

Recycling and Waste Reduction Summary

Moderate Risk Waste Summary

Community Participation

Scope of Plan Amendments

Comprehensive Land Use Plan

SEPA Requirements

WUTC Requirements

**Section 2.0: MUNICIPAL SOLID WASTE (MSW)……………………………………… 17**

Introduction

Existing Conditions

Key Issues

Alternatives

Recommendations

**Section 3.0: RECYCLING AND WASTE REDUCTION………………………………… 25**

Introduction

Existing Conditions

Key Issues

Alternatives

Recommendations

**Section 4.0: CDL AND INERT WASTE MANAGEMENT……………………………… 40**

Introduction

Existing Conditions

Key Issues

Alternatives

Recommendations

**Section 5.0: MODERATE RISK WASTE MANAGEMENT…………………………….. 45**

Introduction

Existing Conditions

Key Issues

Alternatives

Recommendations

**Section 6.0: SPECIAL WASTES……………………………. …………………………….. 55**

Introduction

Existing Conditions

Alternatives

Recommendations

# TABLE OF CONTENTS Page

**Section 7.0: BUDGET………………………………………………………………………. 58**

Introduction

Key Issues

Alternatives

Recommendations

**Section 8.0: SUMMARY OF RECOMMENDATIONS AND IMPLEMENTATION**

**SCHEDULE…………………………………………………………………………. 65**

**LIST OF FIGURES**

1-1 South County (Deer Valley) Transfer Station – Vicinity Map

1-2 South County (Deer Valley) Transfer Station – Aerial Photograph

1-3 South County (Deer Valley) Transfer Station – Aerial Photograph – Wider View

1-4 Central County (Usk) Drop Box Site – Vicinity Map

1-5 Central County (Usk) Drop Box Site – Aerial Photograph

1-6 North County (Ione) Drop Box Site – Vicinity Map

1-7 North County (Ione) Drop Box Site – Vicinity Map

2-1 Pend Oreille County Solid Waste Projections

2-2 Average Annual MSW Volumes (2004 – 2008)

2-3 Excess Disposal Franchise Service Area Map

2-4 B&N Sanitation Franchise Service Area Map

3-1 Average Annual Recycling Rates

3-2 Annual Recycling Rates by Commodity (2003-2008)

5-2 Annual Moderate Risk Waste Collection Summary

7-1 Regional Disposal and County Fees

**LIST OF TABLES**

* 1. Population Data
  2. Population Projections
  3. Municipal Solid Waste Generation Summary
  4. Twenty Year Solid Waste Generation Projections
  5. Annual Municipal Solid Waste Weights [tons]
  6. Environmental Database Review Summary
  7. Recycling Summary
  8. Annual Recycling Weights (ARW) [pounds]
  9. Waste Definitions and Regulatory Summary
  10. Summary of CDL and Inert Waste Management Facilities
  11. Annual Moderate Risk Waste Collection Summary
  12. Solid Waste Budget (Actuals)
  13. Regional Disposal and County Fees
  14. Current (2009) Solid Waste Disposal Rates
  15. Pend Oreille County Solid Waste Budget Forecast (2009-2015)

8-1 Implementation Schedule

**Appendix A Interlocal Agreements, Resolutions, Ordinances, Public Participation**

**Appendix B SEPA Checklist**

**Appendix C WUTC Cost Assessment Questionnaire**

# Pend Oreille County

# Solid Waste Management Plan Update

# Section 1.0

**EXISTING CONDITIONS SUMMARY**

**1.1 INTRODUCTION**

This document amends the Pend Oreille County ***Solid Waste Plan*** (completed in September 1994), the ***Moderate Risk Waste Plan*** (April 1992), and the ***Solid Waste and Moderate Risk Waste Plan Update*** (completed in March 2002).

Prior to the 1960s/1970s, open disposal sites were generally found outside city limits in the rural areas of the County. It was common to dispose of waste on riverbanks, over embankments on rural roads and in the forest. Waste was often burned, and problems associated with rural disposal sites near private property and open burning at Diamond Lake created a smoke hazard on Highway 2. A disposal site next to the Ione Airport runway also created problems for airplanes from the smoke and birds. The County closed the disposal sites and opened two landfills, restricting burning and providing daily cover of solid waste. One was located at Ione and the other at Deer Valley (Newport), both utilizing old gravel pit sites. The County also provided a drop box site at Usk and contracted with individual attendants that operated each landfill and drop box site, had salvage rights, and provided equipment for daily cover. Franchise haulers had keys to the landfill gates and paid the County directly, on a per load basis.

After 1994, the County closed the landfills and constructed solid waste transfer station and drop box sites, as well as household hazardous waste and recycling facilities. The County contracted for operations and transportation services for long-hauling solid waste to a regional landfill, household hazardous waste processing, and recycling services.

Earlier planning documents evaluated various alternatives and led to implementation of the current solid waste transfer system. This document is the second review of the current transfer system conditions, evaluates previous assumptions and recommendations, and seeks to improve the existing solid waste, moderate risk waste, and recycling systems.

**1.2 BACKGROUND INFORMATION**

**1.2.1 Physiographic Setting**

Rural Pend Oreille County is located in the northeastern corner of Washington State. The County is narrow (22 miles in width and 66 miles long) and generally follows the north-flowing Pend Oreille River. Spokane County adjoins the south boundary, the eastern boundary is the Idaho State line, Stevens County adjoins the western boundary, and the northern extent is at the Canadian Border (British Columbia). Population density is located primarily on individually owned lands within the Pend Oreille River Valley and communities in the southern portion of the County. About 60% of County lands are located within the Colville and Kaniksu National

Forests (Selkirk Mountain Range) on the east and west sides of the Pend Oreille River. Topographic elevations commonly range from about 5,000 feet down to river elevations of approximately 2,000 feet. The four-season climate exhibits some marine influence, with 25 to 30 inches of average annual rainfall and average temperatures ranging from the low 20s (°F) in winter months to the 80s (°F) during the summer.

**1.2.2 Population Statistics**

The following are the most recent (2000) U.S. Census Bureau statistics for Pend Oreille County[[1]](#footnote-1):

*The county has a total area of 1,425 square miles, of which, 1,400 square miles (3,627 km²) of it is land and 25 square miles (65 km²) of it (1.76%) is water. There were 11,732 people, 4,639 households, and 3,261 families residing within the County. The population density was 8 people per square mile (3/km²), and there were 6,608 housing units at an average density of 5 per square mile (2/km²).*

*The median[[2]](#footnote-2) income for a household within the County was $31,677, and the median income for a family was $36,977. Males had a median income of $36,951 versus $20,693 for females. The per capita income for the County was $15,731, and about 13.60% of families and 18.10% of the total population were below the poverty line, including 27.60% of those under age 18 and 6.40% of age 65 or over.*

Population numbers within Pend Oreille County[[3]](#footnote-3) provide an estimate (for 2008) of 12,800, with the fastest growing component occurring in the unincorporated areas. The summer population also increases within the County, resulting from occupancy of vacation and second homes, boating and recreational vehicle use, and camping. Table 1-1 (and following graphs) summarizes population data from 2000 through April 2008:

**Table 1-1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2000**  **Census** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** |
| **TOTALS** | **11,732** | **11,800** | **11,800** | **11,800** | **11,900** | **12,200** | **12,300** | **12,600** | **12,800** |
|  | | | | | | | | | |
| **Unincorporated**  **Totals (1)** | 8,735 | 8,710 | 8,735 | 8,810 | 8,920 | 9,210 | 9,300 | 9,529 | 9,700 |
| **Incorporated**  **Totals** | 2,997 | 3,090 | 3,065 | 2,990 | 2,980 | 2,990 | 3,000 | 3,071 | 3,100 |
| Town of Cusick | 212 | 210 | 210 | 205 | 210 | 210 | 205 | 210 | 205 |
| Town of Ione | 479 | 475 | 465 | 440 | 425 | 425 | 420 | 420 | 425 |
| Town of Metaline | 162 | 160 | 160 | 160 | 160 | 160 | 165 | 165 | 170 |
| Town of Metaline Falls | 223 | 225 | 225 | 220 | 220 | 220 | 225 | 286 | 285 |
| City of Newport | 1,921 | 2,020 | 2,005 | 1,965 | 1,965 | 1,975 | 1,985 | 1,990 | 2015 |

**(1) Unincorporated areas include the towns of Usk and Dalkena.**





Population projections from 1990 through 2025 for Pend Oreille County, developed by the Office of Financial Management[[4]](#footnote-4), are summarized in Table 1-2.

**Table 1-2**

|  |  |  |
| --- | --- | --- |
| **Year** | **Population** | **Rate of Change** |
| 1990 | 8,915 | ---- |
| 2000 | 11,732 | 3.16% per year |
| 2007 | 12,600 | 1.06% per year |
| 2008 | 12,800 | 1.59% per year |
| 2010 | 13,683 | 3.45% per year |
| 2015 | 14,697 | 1.48% per year |
| 2020 | 15,691 | 1.135% per year |
| 2025 | 16,646 | 1.22% per year |

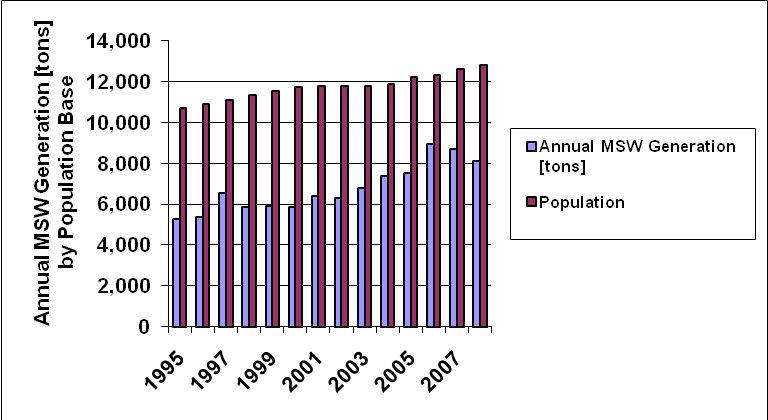
**1.3 MUNICIPAL SOLID WASTE GENERATION SUMMARY**

The Pend Oreille County annual municipal solid waste (MSW) tonnages, as reported by Regional Disposal Company, are provided in the following table. Comparing the total County population with the reported waste volumes provides an estimate of disposal rates per capita. Table 1-3 (and associated plot) shows (per capita) disposal rates increasing from approximately 3 pounds in the 1990s up to about 4 pounds since 2006 and an average annual increase of 3.4% from 1995 through 2008.

**Table 1-3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Annual**  **MSW Generation**  **[tons]** | **Population** | **Daily Disposal Rate**  **[pounds/person]** | **Percent Change (1)** |
| 1995 | 5,260 | 10,698 | 2.69 | ----- |
| 1996 | 5,345 | 10,905 | 2.69 | 0% |
| 1997 | 6,525 | 11,112 | 3.22 | +20% |
| 1998 | 5,875 | 11,319 | 2.84 | -12% |
| 1999 | 5,915 | 11,526 | 2.81 | -1% |
| 2000 | 5,870 | 11,732 | 2.74 | -2% |
| 2001 | 6,370 | 11,800 | 2.96 | +8% |
| 2002 | 6,313 | 11,800 | 2.93 | -1% |
| 2003 | 6,787 | 11,800 | 3.15 | +8% |
| 2004 | 7,391 | 11,900 | 3.40 | +8% |
| 2005 | 7,516 | 12,200 | 3.38 | -1% |
| 2006 | 8,922 | 12,300 | 3.97 | +17% |
| 2007 | 8,704 | 12,600 | 3.79 | -5% |
| 2008 | 8,124 | 12,800 | 3.48 | -8% |
| **Average annual increase from 1995 – 2008** | | | | **2.58%** |

**(1) Change in disposal rate from previous year.**



Projections of municipal solid waste generation through 2025 are summarized in Table 1-4 and assume population projections (as defined by the Office of Financial Management) and an average annual increase in solid waste generation of 2.58%.

**Table 1-4: Twenty Year Solid Waste Generation Projections**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **1995** | **2000** | **2007** | **2008** | **2010** | **2015** | **2020** | **2025** | **2028** |
| Population  Projections | ----- | 11,732 | 12,600 | 12,800 | 13,683 | 14,697 | 15,691 | 16,646 | 17,255 |
| Population  Growth per Year | ----- | 3.16% | 1.06% | 1.59% | 3.45% | 1.48% | 1.135% | 1.22% | 1.22% |
| Projected Solid Waste Generation [tons] Growth rate of 2.58% per year | ---- | 5,939 | 6,930 | 8,929 | 8,549 | 9,710 | 10,963 | 12,377 | 13,335 |
| Actual Solid Waste Generation [tons] | **5,260** | **5,870** | **8,704** | **8,124** | ----- | ----- | ----- | ----- | ----- |

Increased disposal rates are a product of many factors. Prior to the mid 1990s when the landfills were open, it was more cost-effective for residents to self-haul rather than participate in curbside collection. Curbside collection through the franchise haulers increased after the transfer stations were completed (with associated rate increases). Additionally, there has been increasing use of the franchise haulers by industrial, construction, and commercial customers within the County. Increased recycling and waste reduction efforts may decrease MSW generation over time, if appropriate economic incentives (and disincentives) occur through higher disposal costs and/or improved recycling and waste reduction opportunities.

The current facilities have the capacity to easily process two to three times the current volumes of solid waste, meeting the estimated long-range needs for solid waste handling facilities projected twenty years into the future. The increased projected waste stream will require increased operations activity, with additional movement of waste across the South County Transfer Station tipping floor and additional changes of trailers, boxes and transport to process larger volumes of waste.

**1.4 RECYCLING AND WASTE REDUCTION SUMMARY**

Recycling collection boxes for scrap metal, newspaper, cardboard, aluminum cans, tin cans and container glass are provided free of charge at the transfer stations. The public separates and delivers recyclable materials to the collection boxes that are monitored and cleaned by County personnel. Composting and recycling of construction, demolition, and landclearing (CDL) debris are currently not components of the existing system.

Waste reduction policies have not been formally initiated by the County, but specific goals and recommendations for implementing waste reduction strategies are provided in this ***Solid Waste Management Plan Update***.

**1.5 MODERATE RISK WASTE SUMMARY**

Moderate Risk Waste (MRW), which is primarily Household Hazardous Waste (HHW), is collected and processed at a facility located adjacent to the South County (Deer Valley) Transfer Station near Newport. MRW collection containers are also located at the Central County (Usk) and North County (Ione) Drop Box Sites. Disposal of MRW occurs prior (before weighing) to MSW drop off and is provided as a free service to County residents. Processed waste is shipped to various locations, with some items reused by the County (for example, used oil). Countywide average annual weights are approximately 9 tons of MRW and 6 tons of used oil.

**1.6 SPECIAL WASTES SUMMARY**

Special wastes are a category of generated waste materials that require management strategies outside municipal solid waste (MSW) collection, processing, transport, and disposal. These wastes include: biosolids (including septic tank and wastewater treatment plant sewage sludge), biomedical wastes (including animal carcasses), asbestos, petroleum contaminated soils and sludge, tires, and auto hulks and parts. These wastes are not handled through the County but are managed by the waste generators.

**1.7 LITTER CONTROL and ENFORCEMENT SUMMARY**

The Pend Oreille County Sheriff’s Department uses low-risk detention and court-ordered community service laborers on work crews to seasonally collect litter in the communities, on County roads, and along the state highways. The work crews pick up litter but also pick up fugitive and illegal dumpsites, separate the recyclables, and deliver solid waste to the South County Transfer station via a utility trailer that is pulled behind the work van.

Washington State Department of Transportation (WSDOT) maintenance crews collect litter directly from state highways; and Pend Oreille County sponsors an Adopt-A-Highway program, similar to the program administered by WSDOT, which enlists and encourages civic groups and individuals to collect litter on specifically assigned sections of the state highways.

The Northeast Tri-County Health District receives solid waste tax funds to investigate fugitive and illegal disposal site complaints, in cooperation with the County Sheriff’s Department.

**1.8 FRANCHISE HAULERS**

Two franchise haulers provide curbside collection services within Pend Oreille County:

* Excess Disposal operates in the southern half of the County serving Newport, Cusick, Usk, Diamond Lake, and Sacheen Lake, and handled approximately 4,200 tons of MSW in 2007.
* B&N Sanitation operates in the northern half of the County serving Metaline, Metaline Falls, and Ione, and handled approximately 816 tons of MSW in 2007.

**1.9 FACILITY SUMMARY**

The County has an inventory of three solid waste facilities: the South County Transfer Station and the North and Central County Drop Box Sites. The three facilities provide for disposal, transfer, and processing of recyclables and MRW wastes. There are no capacity deficiencies in meeting current solid waste handling needs, however there is the continued opportunity for improved operational efficiency and increased potential for waste reduction and recycling.

**1.91 South County Transfer Station**

The South County Transfer Station (Deer Valley) facility is located on approximately 5 acres in the east half of the SW1/4 of Section 28, Township 31 North, Range 45 East W.M. The facility is accessed from Deer Valley Road; approximately 1,000 feet west of Gray Road and directly east from County Road Shop No. 1 (refer to Figure 1-1).

The facility consists of the following components (refer to Figure 1-2):

* Transfer building, with tipping floor and a trailer loading bay set (with a 500-gallon sump) under a 50 ft. by 60 ft. steel building;
* Pit scale (80 foot);
* Scale attendant, operator, and shop building;
* Household hazardous waste collection, bulking, and storage facility (1,500 ft2);
* A five-sided concrete tipping wall with large capacity boxes for collection of recyclable items.
* Newly constructed (2008) recycling operations building (40 ft. by 80 ft. steel building) for housing a baler, cardboard stockpiles, and electronic recyclables collection site.

The facility is fenced with 6-ft. high chain link, with gates that are locked when the facility is closed to the public. No personal or attendant salvaged items are allowed to accumulate at the site.

The site averages from about 45 to 65 vehicles up to as high as 100 vehicles per day of residential self-haul. Traffic from commercial franchise trucks and contractor trucks (from the Usk and Ione Drop Box Sites) is highly variable and dependent upon the time of year and operational efficiencies. The majority of waste delivered to the facility is municipal solid waste. Current volumes are approximately 600 to 800 tons per month, which includes wastes from the two drop box sites and the two commercial franchise haulers where the County waste stream is consolidated into trailers for transport to the Roosevelt Regional Landfill in Klickitat County (Washington). Self-haul accounts for approximately 150 to 250 tons per month.

The facility receives the following recyclables into roll-on steel transfer containers: mixed paper, ferrous metals, tin cans, aluminum cans, cardboard, and glass. The household hazardous waste collection, bulking, and storage facility processes approximately 3 tons of automotive oil, antifreeze, batteries, and latex/oil paints and about 15 refrigerators per month.

The County-owned property near the facility also includes (refer to Figure 1-3):

* The closed Deer Valley Landfill, located immediately south of the facility;
* A staging area for salvaged auto hulks collected within the County; and
* Glass-crushing area for County use (inclusion in road-base).

**1.9.2 Usk Drop Box Station**

The Usk Drop Box Station is located on approximately 1 acre in the SW1/4 of the SE1/4 of Section 7, Township 32 North, Range 44 East W.M. (refer to Figure 1-4). Accessed from Jared Road, approximately 750 feet west of SR 211, the facility is adjacent (west) to County Road Shop No. 2. There is a small attendant building and concrete tipping wall for large capacity drop boxes for collection of self-haul municipal solid waste and recyclables (refer to Figure 1-5). There is no scale, so tipping charges are based on volume. The site receives up to about 50 vehicles per day, disposing an average of 10 tons per month of solid waste during the winter up to 50 tons per month during the rest of the year. The site also receives household hazardous wastes, which are stored in secondary containment where required. Although the site is partially secured in a fenced area behind a gate that is locked when the facility is closed, it is accessible through the access gate to Pend Oreille County Shop No. 2 (when the gate is unlocked). No personal or attendant salvaged items are allowed to accumulate at the site.

**1.9.3 North County (Ione) Drop Box Station**

The North County (Ione) Drop Box Station is located within a 40-acre County-owned parcel in the SW1/4 of SW1/4 of Section 4, Township 37 North, Range 43 East W.M. The facility is accessed from Sullivan Lake Road approximately 1.7 miles east of SR 31 (refer to Figure 1-6). The site has a scale attendant and shop building; a 40-foot pit scale and concrete tipping wall for large capacity drop boxes for collection of municipal solid waste and recyclable items (refer to Figure 1-7). The site receives about 25 to 100 self-haul vehicles per day, disposing an average of 30 tons of MSW during the winter up to 90 tons per month of municipal solid waste (primarily in the summer). The site also receives household hazardous wastes, which are stored in secondary containment where required. The site is located behind gates, which are locked when the facility is closed to the public. No personal or attendant salvaged items are allowed to accumulate at the site. The closed Ione Landfill is also located adjacent (north) of the facility.

**1.10 OPERATIONS SUMMARY**

The Pend Oreille County Public Works Department, Solid Waste Division is responsible for the operation of the County’s solid waste facilities. The Public Works Director has overall responsibility for directing the solid waste operations and contract administration. The County also staffs two positions: a part-time Solid Waste Coordinator, who oversees the day to day operations, grants, and accounts receivable/payable; and a full-time Moderate Risk Waste and Recycling Coordinator, who is responsible for the day to day operations of the household hazardous waste and recycling activities. Pend Oreille County owns and maintains all of the solid waste facilities and the recycling containers (15 cubic yard to 40 cubic yard), with the exception of the containers supplied by American Recycling for metal.

The County contracts with Regional Disposal Company for the operation of the three solid waste facilities, the short haul of municipal solid waste (MSW) from Usk and Ione to the Deer Valley (South County) Facility, and the long haul of MSW from Deer Valley to Roosevelt Regional Landfill in Klickitat County, Washington. Regional Disposal Company provides site operations and short hauling with site attendants and equipment as well as hauling of recycled material to the facility, as designated by the County.

Regional Disposal provides two (2) site attendants at the Deer Valley Transfer Facility, and one (1) each at the Usk and Ione Drop Box Facilities for the operating days. The attendants provide all aspects of the station operations including, but not limited to, container loading services, overall site supervision, and assistance with recycling and moderate risk waste activities.

Hours of Operation:

* Deer Valley Transfer Station: Open 9:00 a.m. to 5:00 p.m., Thursday through Monday. Closed Tuesday and Wednesday.
* Usk Drop Box Facility: Open 9:00 a.m. to 5:00 p.m., Wednesday and Saturday only.
* Ione Drop Box Facility: Open 8:00 a.m. to 4:00 p.m., Wednesday and Saturday only.
* All facilities are closed to the general public on the following holidays: New Years Day, Labor Day, Thanksgiving Day, and Christmas Day.

**1.11 COMMUNITY PARTICIPATION**

The City of Newport and the Towns of Cusick, Ione, Metaline, and Metaline Falls have deferred solid waste planning responsibility to the County and Resolutions of Adoption for the current Solid Waste Management Plan (updated in 2002) are provided in **Appendix A** of this ***Solid Waste Management Plan*** update. None of the towns collect MSW or operate disposal facilities, and interlocal agreements for the current planning effort are provided in **Appendix A**.

The community was surveyed for additional information and recommendations related to solid waste management, recycling, and waste reduction efforts. Public input received by the County is also provided in **Appendix A**.

**1.12 SCOPE OF PLAN AMENDMENTS**

**1.12.1 Solid Waste Management Plan Guidance**

***Guidelines for the Development of Local Solid Waste Management Plans and Plan Revisions*** (Ecology Publication #90-11) outlines process and planning steps to preparing documents in standard formats. The majority of the guidance is directed towards scope, issues, and items to address in the preliminary draft of the plan. The balance of guidance provides procedural direction related to involving the public and regulators in the process. It is the intent of this document to adhere to the guidelines as much as practicable exploring ways to improve an existing rural collection and transfer system.

The balance of the planning effort is directed at presenting a draft document, soliciting public comment, obtaining regulatory approval, submitting the final document, and implementing the plan. Following is a list of planning tasks to be completed:

* **Guideline Steps 1, 2, 3:** Develop scope of plan for Pend Oreille County, based upon the current system, meetings with Ecology, telephone interviews with industry, and guidance documents.
* **Guideline Steps 4, 5:** Prepare and present preliminary SWMP and MRWP amendments to informal Solid Waste Advisory Committee (SWAC) for review and comment.
* **Guideline Steps 5, 6:** Incorporate SWAC comments and revisions into amendments for presentation of Draft SWMP and MRWP amendments to Washington State Department of Ecology (Ecology), Northeast Tri-County Health District (TCHD), and the Washington Utilities and Transportation Commission (WUTC), along with any required operational amendments, for review and comment.
* **Guideline Step 7**: Prepare a SEPA checklist and process for determination.
* **Guideline Step 8**: Prepare final amendments and documents based upon DOE and TCHD reviews and comments.
* **Guideline Step 9**: Obtain Resolutions of Adoption from the Cities, finalize amendments, and adopt SWMP and MRWP amendments by County Commissioners.
* **Guideline Step 10**: Submit final plan to DOE, TCHD and WUTC.
* **Guideline Steps 11, 12**: Implement and maintain plan.

**1.12.2 Solid Waste Management Plan Requirements**

|  |  |
| --- | --- |
| RCW 70.95.090 County and city comprehensive solid waste management plans — Contents. |  |

Each county and city comprehensive solid waste management plan shall include the following:  
  
     (1) A detailed inventory and description of all existing solid waste handling facilities including an inventory of any deficiencies in meeting current solid waste handling needs.  
  
     (2) The estimated long-range needs for solid waste handling facilities projected twenty years into the future.  
  
     (3) A program for the orderly development of solid waste handling facilities in a manner consistent with the plans for the entire county which shall:  
  
     (a) Meet the minimum functional standards for solid waste handling adopted by the department and all laws and regulations relating to air and water pollution, fire prevention, flood control, and protection of public health;  
  
     (b) Take into account the comprehensive land use plan of each jurisdiction;  
  
     (c) Contain a six year construction and capital acquisition program for solid waste handling facilities; and  
  
     (d) Contain a plan for financing both capital costs and operational expenditures of the proposed solid waste management system.  
  
     (4) A program for surveillance and control.  
  
     (5) A current inventory and description of solid waste collection needs and operations within each respective jurisdiction which shall include:  
  
     (a) Any franchise for solid waste collection granted by the utilities and transportation commission in the respective jurisdictions including the name of the holder of the franchise and the address of his or her place of business and the area covered by the franchise;  
  
     (b) Any city solid waste operation within the county and the boundaries of such operation;  
  
     (c) The population density of each area serviced by a city operation or by a franchised operation within the respective jurisdictions;  
  
     (d) The projected solid waste collection needs for the respective jurisdictions for the next six years.  
  
     (6) A comprehensive waste reduction and recycling element that, in accordance with the priorities established in RCW [70.95.010](http://apps.leg.wa.gov/RCW/default.aspx?cite=70.95.010), provides programs that (a) reduce the amount of waste generated, (b) provide incentives and mechanisms for source separation, and (c) establish recycling opportunities for the source separated waste.  
     (7) The waste reduction and recycling element shall include the following:  
  
     (a) Waste reduction strategies;  
  
     (b) Source separation strategies, including:  
  
     (i) Programs for the collection of source separated materials from residences in urban and rural areas. In urban areas, these programs shall include collection of source separated recyclable materials from single and multiple family residences, unless the department approves an alternative program, according to the criteria in the planning guidelines. Such criteria shall include: Anticipated recovery rates and levels of public participation, availability of environmentally sound disposal capacity, access to markets for recyclable materials, unreasonable cost impacts on the ratepayer over the six-year planning period, utilization of environmentally sound waste reduction and recycling technologies, and other factors as appropriate. In rural areas, these programs shall include but not be limited to drop-off boxes, buy-back centers, or a combination of both, at each solid waste transfer, processing, or disposal site, or at locations convenient to the residents of the county. The drop-off boxes and buy-back centers may be owned or operated by public, nonprofit, or private persons;  
  
     (ii) Programs to monitor the collection of source separated waste at nonresidential sites where there is sufficient density to sustain a program;  
  
     (iii) Programs to collect yard waste, if the county or city submitting the plan finds that there are adequate markets or capacity for composted yard waste within or near the service area to consume the majority of the material collected; and  
  
     (iv) Programs to educate and promote the concepts of waste reduction and recycling;  
  
     (c) Recycling strategies, including a description of markets for recyclables, a review of waste generation trends, a description of waste composition, a discussion and description of existing programs and any additional programs needed to assist public and private sector recycling, and an implementation schedule for the designation of specific materials to be collected for recycling, and for the provision of recycling collection services;  
  
     (d) Other information the county or city submitting the plan determines is necessary.  
  
     (8) An assessment of the plan's impact on the costs of solid waste collection. The assessment shall be prepared in conformance with guidelines established by the utilities and transportation commission. The commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.  
  
     (9) A review of potential areas that meet the criteria as outlined in RCW [70.95.165](http://apps.leg.wa.gov/RCW/default.aspx?cite=70.95.165).

**1.12.3 SWAC Requirements**

In accordance with RCW 70.95.165(3):

Each county shall establish a local solid waste advisory committee to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption. Such committees shall consist of a minimum of nine members and shall represent a balance of interests including, but not limited to, citizens, public interest groups, business, the waste management industry, and local elected public officials. The members shall be appointed by the county legislative authority. A county or city shall not apply for funds from the state and local improvements revolving account, Waste Disposal Facilities, 1980, under chapter [43.99F](http://apps.leg.wa.gov/RCW/default.aspx?cite=43.99F) RCW, for the preparation, update, or major amendment of a comprehensive solid waste management plan unless the plan or revision has been prepared with the active assistance and participation of a local solid waste advisory committee.

**1.12.4 Initial SWMP Scoping Effort**

This planning effort utilizes the following scope, which was presented and discussed with the Department of Ecology and Pend Oreille County prior to the start of work:

* Combine the Solid Waste Management Plan (SWMP), the Moderate Risk Waste Plan (MRWP), and Operations Plan amendments in a single planning effort and combining the public participation portion, working on document preparation concurrently.
* Focus planning and document preparation efforts on increased recycling and waste reduction opportunities and potential improvements in the current transfer station infrastructure, as opposed to detailed analysis of current condition/evaluation of previous alternatives and options.
* Evaluate system capacity and feasibility of increasing waste streams (demolition debris, inert wastes) for economic benefit from industrial generators within the County.
* Prepare a solid waste and moderate risk waste survey for telephone interviews of franchise hauler(s) and contractors, business/commercial representatives, and public officials.
* Collect and summarize solid waste, recycling, and MRW weights and budget records over a multiyear period for incorporation into the document.
* Contact representatives of local industries to identify waste streams and potential ways to take advantage of economies of scale on local handling costs.

The County will endeavor to establish a local solid waste advisory committee (SWAC) to assist in the development of programs and policies concerning solid waste handling and disposal and to review and comment upon proposed rules, policies, or ordinances prior to their adoption. Such committee shall consist of a minimum of nine members and shall represent a balance of interests and stakeholders including, but not limited to: citizens, public interest groups, business, the waste management industry, and local elected public officials. The following individuals have agreed to serve on the SWAC for the purpose of participating in updating the ***Solid Waste Management Plan*** and the process of identifying other stakeholders and additional input will be ongoing throughout the planning process (refer also to **Appendix A**):

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Affiliation** | **E-mail** | **Telephone No.** |
| Bob Nichols (Chair) | B&N Sanitation |  | 509-445-1353 |
| Charles Kress | Citizen | bocatt@hotmail.com | 509-447-5367 |
| Cindy Low | Excess Disposal | low7@verizon.net | 208-437-4502  509-448-2394 |
| Dave Alvarado | NW Industrial Services, LLC | dave\_alvarado@air-pipe.com | 509-496-1112 |
| Dennis McLaughlin | Regional Disposal Company | rdcspokane@aol.com | 509-244-3325 |
| Don Hutson | Kalispel Tribe of Indians | dhutson@kalispeltribe.com | 509-447-1147 |
| Scott Campbell | Ponderay Newsprint | scott.campbell@AbitibiBowater.com | 509-445-2304 |
| Travis Low (Vice-Chair) | Excess Disposal | sledpoor@hotmail.com |  |
| Judy Henshaw | Citizen (Newport Schools) | henshaw@newport.wednet.edu | 509-671-2342 |

**1.13 COMPREHENSIVE LAND USE PLAN**

The Pend Oreille County ***Comprehensive Land Use Plan*** was adopted by the Board of County Commissioners on October 17, 2005 and subsequently amended in February 2007 and March 2008.  Development regulations were implemented on September 1, 2007 and updated on May 16, 2008 effective July 1, 2008.  The ***Comprehensive Land Use Plan*** will be subject to annual review for the foreseeable future and changes to the development regulations will follow any plan amendments.

**1.13.1 Rural Designation**

The rural designation for Pend Oreille County is consistent with development patterns. Population was estimated in 2007 at 12,600 residents and land area of 910 square miles (0.65 of 1,400 square miles—removing forest service lands), providing a density of less than 16 residents per square mile. Level of service for recyclable materials is consistent throughout the County with containers available at the transfer station and drop box sites. Neither curbside collection of recyclables nor drop box sites for recyclables currently exists within the communities.

#### 1.14 SEPA REQUIREMENTS

A State Environmental Policy Act (SEPA) Checklist was completed for the draft plan (**Appendix B**) and a determination of non-significance is proposed based upon the recommendations section of this plan. The proposed changes in operations and facilities are ongoing maintenance and improvement work to existing facilities. There are no measurable impacts with regard to environmental elements listed in the SEPA Checklist.

**1.15 WUTC REQUIREMENTS**

A Washington Utility and Transportation Commission (WUTC) Checklist is required, updating volumes and financial information together with franchise hauler data (refer to **Appendix C**). WUTC is the primary regulator of the franchise haulers.

# Pend Oreille County

# Solid Waste Management Plan Update

# Section 2.0

# MUNICIPAL SOLID WASTE (MSW)

2.1 INTRODUCTION

Under state statute, the Revised Washington Code (RCW) definition of "solid waste" or "wastes" includes all putrescible and non-putrescible solid and semisolid wastes including, but not limited to: garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials. Management of municipal solid waste (MSW) generated by households, businesses and industry is divided into the following categories: solid waste (Section 2.0); recyclables (Section 3.0); construction, demolition, and land clearing (CDL) debris and inert waste (Section 4.0); moderate risk waste (Section 5.0) and special wastes (Section 6.0).

**2.1.1 MSW Management Goals**

* Provide for cost-effective and efficient collection and transfer of MSW.
* Provide for recycling and waste reduction opportunities at MSW facilities.
* Continue public outreach in MSW reduction, recycling, and appropriate disposal.

**2.2 EXISTING CONDITIONS**

Pend Oreille County provides solid waste transfer services for the unincorporated County and includes the incorporated communities of: Newport, Cusick, Ione, Metaline and Metaline Falls; as well as the Kalispel Tribe, under the agency rules found in Washington Administrative Code (WAC) 173-350-300.

MSW is collected and delivered by two franchise haulers or self-hauled to three (3) County facilities, the North and Central County Drop Box Sites or the South County Transfer Station, where waste is consolidated for long haul to a regional landfill. The three facilities also provide for disposal, transfer, and processing of recyclables and MRW wastes.

**2.2.1 Annual Weights and Projections**

Based on the projected population and solid waste increases outlined in **Section 1.0** (summarized in Figure 2-1), MSW volumes will more than double within the next twenty years to over 16,000 cubic yards annually with no changes in waste reduction or recycling efforts.

**Figure 2-1: Pend Oreille County Solid Waste Projections**

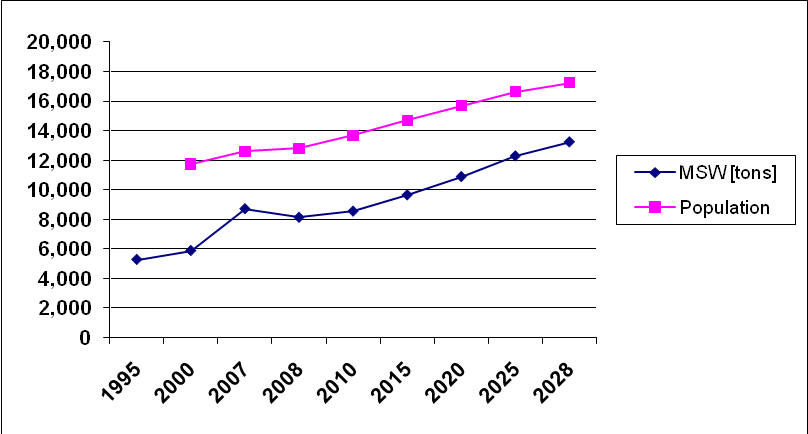


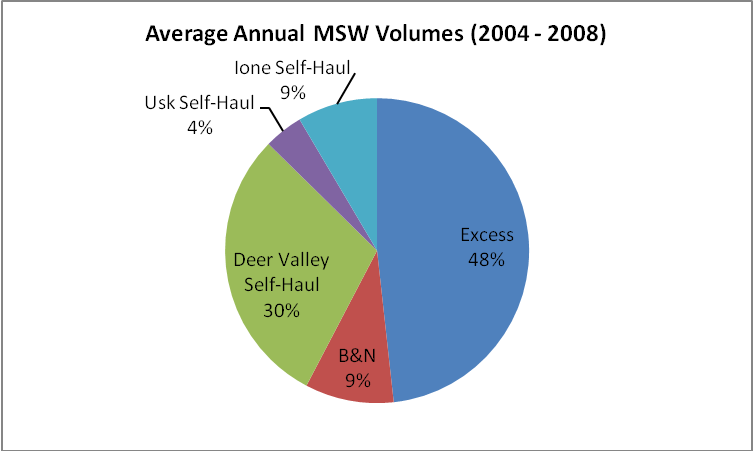
Table 2-1 and Figure 2-2 summarize the origin of total waste volumes, with the fastest growing component from franchise haulers. Franchise haulers collect approximately 60% of the MSW with 40% coming from self-haul.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 2-1: Annual Municipal Solid Waste Weights [Tons]** | | | | | | | |
| **Year** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** |
| Franchise Haulers **Excess Disposal**  **B & N Sanitation**  **Franchise Haulers Totals** |  |  | 3,528  768  4,296 | 3,777  776  4,553 | 4,148  747  4,895 | 4,213  816  5,029 | 4,153  761  4,914 |
| **Self-Haul Totals**  **South County Transfer Station (Newport)**  **Central County Transfer Station (Usk)**  **North County Transfer Station (Ione)**  **Self-Haul Totals** |  |  | 2,190  285  615  3,090 | 2,426  372  682  3,480 | 2,549  394  720  3,663 | 2,586  384  716  3,686 | 2.442  265  756  3,463 |
|  | | | | | | |  |
| **County Reported Totals**  **(Franchise and Self-Haul)** |  |  | **7,386** | **8,033** | **8,558** | **8,715** | **8,377** |
| **Regional Disposal (Landfill) Reported Totals** | **6,313** | **6,787** | **7,391** | **7,516** | **8,922** | **8,704** | **8,124** |

**NOTES:**

* Differences in weights are due to moisture content variances between transfer station loading and disposal at the landfill, with weight decreasing at landfill in summer months and increasing in winter months.
* All solid waste from franchise haulers (Excess Disposal and B&N Sanitation) and from North County (Ione) and Central County (Usk) is deposited at the South County (Newport) Transfer Station.
* South County Transfer Station (Newport) total is the self-haul portion of the waste deposited at South County Transfer Station (Newport).

Figure 2-2



2.2.2 Franchise Haulers

Pend Oreille County utilizes two franchise haulers, operating businesses that have remained under the same ownership for several decades. Curbside fees have remained relatively stable and increase in direct proportion to transfer station disposal rates. The number of curbside customers increases seasonally (during the summer) and has increased over time, with the last major spike in the mid 1990s when the County-operated landfills closed. Franchise volumes, as a percentage of total volume, have increased at a faster pace than self-haul volumes (that have remained fairly stable).

**Excess Disposal (Franchise Number G-000107)**

**Owners:** Cindy Low and Rod Troudt, 2654 East Hwy 2, Oldtown, ID 83822, (208) 437-4502

Franchise area covers southern Pend Oreille County, from the Spokane County line to Blue Slide (about 20 miles north of Cusick); and services approximately 700 residential customers (with a seasonal increase of approximately 50 residential customers in the summer) and approximately 240 commercial customers. (Refer to Figure 2-3: Franchise Service Area Map).

Largest commercial accounts:

* + - * Ponderay Newsprint, Usk: Approximately 2 20-cy compactor boxes and approximately 1 40-cy roll-off box weekly.
      * CD Zodiac (formerly Aerocell), Newport: Approximately 1 6-cy box and 1 30-cy roll-off box weekly.
      * Kalispel Tribe, Usk: Approximately 2 20-cy boxes weekly.
      * Fairchild AFB Survival School, Cusick: Approximately 1 4-cy box weekly and 1 40-cy box monthly.

**B&N Sanitary (Franchise Number G-000122)**

**Owner:** Bob Nichols, 403641 Hwy 20, Cusick, WA 99119, (509) 445-1353

Franchise area covers northern Pend Oreille County, from the Canadian Border to Tiger (about 5 miles south of Ione); and services about 300 residential and small commercial customers (apartments, groceries, and restaurants). (Refer to Figure 2-4: Franchise Service Area Map).

2.2.3 Industrial Generators

The number of industrial businesses has increased by about one or two since the last SWMP update and is consistent with current trends in slow industrial growth within a rural area. Ponderay Newsprint and C&D Zodiac (formerly Aerocell) are the two primary industrial businesses, with the Kalispel Tribe generating mixed loads of residential and industrial park MSW, all handled by the franchise haulers:

* Ponderay Newsprint (Central County) – Newsprint manufacturer

Recycles newsprint, generates up to 80 cy of MSW per week.

* C&D Zodiac Inc (South County) – Plastics manufacturer/fabricator

Generates up to 36 cy of MSW per week.

* Kalispel Tribe (Central County) – Reservation and industrial park

Residential and gun case manufacturers, up to 40 cy MSW per week.

The following are the other primary industrial generators who internally manage their waste:

* Pend Oreille County Public Utility District (South and North County) – Electrical power supplier (Box Canyon Dam) and community water system owners.
* Vaagen Brothers/Ponderay Valley Fibre (Central County) – Wood chip manufacturer.
* Pend Oreille County Railroad (Central County) – Operates a small branch line and rebuilds equipment.
* Teck Cominco (North County) – Zinc-lead mine with new tailings pond (not operating).
* Lafarge North America Inc (North County) – Closed cement plant, disposal area, and quarry.

**2.2.4 Federal Environmental Databases**

Environmental databases were checked for unknown and or potential industrial generators with some closed and temporary generators (such as the large motion picture operation in the Metaline Falls area). The mining industry and the closed cement plant in the northern county are the largest known potential generators of industrial wastes from remediation and future production activities.

The following Federal environmental databases were reviewed (2008) and summarized in Table 2-2:

**Table 2-2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Community or**  **Location** | **Zip Code** | **NRC**  **(Spills)**  **Note 1** | **CERCLIS**  **(Toxic Sites)**  **Note 2** | **RCRIS**  **(Hazardous Waste Generators)**  **Note 3** |
| **Pend Oreille County** | **County wide** | **11** | **0** | **0** |
| **Newport** | **99156** |  | **0** | **11** |
| **Usk** | **99180** |  | **0** | **2** |
| **Cusick** | **99119** |  | **0** | **2** |
| **Ione** | **99139** |  | **0** | **2** |
| **Metaline** | **99152** |  | **5** | **0** |
| **Metaline Falls** | **99153** |  | **3** | **10** |

**NOTES:**

1. **NRC (National Response Center)**

Eleven (11) spills are reported as occurring in the County, but none since 2002.

1. **CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Act)** Eight (8) mining and mill sites located in the northern County: Blue Bucket Mine, Grandview Mine, Oriole Mine, Pend Oreille Mine and Mill, Pend Oreille Village, Old Josephine Mill, Josephine Mine, and New Josephine Mill.
2. **RCRIS (Resource Conservation and Recovery Act)**

There were 27 hazardous waste generators reported including: existing operations, one time operations, and no longer in operation. Records are consistent with currently known industrial generators, and most internally handle waste (not managed through the County operations).

2.2.5 Closed Landfills

Prior to 1994, the County operated two landfills (in County-owned gravel pits) located near Newport on Deer Valley Road (South County or Deer Valley Landfill – refer to Figure 1-2) and near Ione on the Sullivan Lake Road (North County or Ione Landfill – refer to Figure 1-6). The County contracted with operators who collected fees, provided daily cover, and had salvage rights. The landfills (each about five acres in size and with a rough estimate of 100,000 cubic yards of MSW in place) were closed in 1994, under the requirements of Chapter 173-304-407 WAC (grading, geomembrane cover system, seeded topsoil, gas collection system, and groundwater monitoring wells).

Since closure of the two landfills, the County has endeavored to meet the requirements of post- closure monitoring within the challenges of limited staff and budget. Additional downgradient groundwater wells were installed at both landfills in 1999, with limited success; and groundwater monitoring has occurred on an intermittent basis due to variable and seasonal lack of sufficient quantities of groundwater (Ione) and limited access to monitoring wells in the winter. Both landfills appear to be stabilizing: the methane gas levels are too low to be flared; no significant areas of settlement are observed; storm water runoff systems have not received enough precipitation to pond water; and vegetative cover is now well established with no erosion problems.

2.2.6 Transfer Operations Staffing

The County has three (3) public employees overseeing the MSW facilities and operations:

* The Public Works Director has overall responsibility for directing the solid waste operations and contract administration.

* The Moderate Risk Waste (MRW)/Recycling/Household Hazardous Waste (HHW) Coordinator is responsible for the day-to-day operations of the household hazardous waste and recycling activities.

* The Solid Waste Coordinator oversees the day to day solid waste operations, grants, and account receivables and payables.

The Operations Contractor has up to five (5) employees working as operators and attendants of the MSW facilities and operations:

* Contractor provides up to two (2) driver/operators, using a backhoe to compact MSW in the trailers and hauling MSW to the rail yard in Spokane. The operators also use a roll off truck to move solid waste and recyclables between the drop box site and the transfer station and to various collection locations.
* The Contractor also provides one full time attendant at South County (Deer Valley) Transfer Facility and two (2) part time attendants--one each at Central (Usk) and North County (Ione) Drop Box Sites.

**2.3 KEY ISSUES**

* The previous recommendations for MSW evaluated at least four transfer options and three construction alternatives. Construction alternatives evaluated in the original SWMP included various size bottom-lined landfills and building a waste-to-energy plant and/or a mixed use composter. These alternatives for the small county waste stream are not economic, due to both capital and operational expenditures and dependence upon little or unknown technologies. Transfer alternatives considered truck transfer to Stevens County Landfill or Spokane County Waste to Energy Plant but are not possible due to capacity consideration and flow control ordinances. Truck transport to other regional landfills was also determined to be less economic than the current truck rail bimodal option.
* The County is operating with the minimum number of public employees and the Operations Contractor is endeavoring to operate the facilities at the lowest cost, with the least number of employees. As an alternative to the current condition, other public staffing alternatives should be considered to lower MSW handling and disposal costs (through increased recycling and reduction activities).
* Economic sustainability of the solid waste management system has always been a challenge for the County. Tipping fees have not been able to maintain the program without grant assistance and with minimizing staff and program operational costs.

**2.4 ALTERNATIVES**

|  |  |  |
| --- | --- | --- |
| **Facility and Equipment** | Improve efficiency and cost-effectiveness of solid waste collection, processing, and transport of MSW.  Maximize MSW diversion (recycling). | 1. Collect inert waste and construct an inert waste landfill at South County Transfer Station. 2. Baler and building for recyclable materials at the South County Transfer Station. 3. CDL diversion area at the South County Transfer Station. 4. Facility modifications for improved site security at Usk Drop Box Site. 5. Scale at Usk Drop Box Site 6. Develop a railcar loading facility, with POVA, as an alternative for truck transport of solid waste. |
| **Operations and Public Education** | Improve efficiency and cost-effectiveness of solid waste collection, processing, and transport of MSW.  Maximize MSW diversion (recycling). | 1. Evaluate public staffing alternatives for the transfer station and drop box sites. 2. Improve site layout and signage at Ione Drop Box site to optimize recycling loads. 3. Evaluate adjusting transfer station schedules and access restrictions to mitigate after-hours dumping. 4. Evaluate operational changes to remove more recyclables from solid waste collected by franchise haulers. 5. Evaluate curbside recycling collection strategies. 6. Evaluate offsite recycling collection strategies. 7. Develop public education materials, related to solid waste management within the County, for distribution at the facilities and other venues (County Fair, schools, Courthouse, etc.). 8. Coordinate school tours of the facilities. 9. Evaluate computerized scaling at all three facilities. |
| **Program and Administrative** | Develop and maintain an economically sustainable solid waste management program. | 1. Evaluate a Flow Control Ordinance for the County. 2. Assess the tipping fees and mechanisms for adjustment. 3. Continue to seek grant funding opportunities. 4. Evaluate the need for program fees and minimum transaction fees. 5. Evaluate disposal and operations contract options. 6. Evaluate post-closure monitoring requirements for closed Deer Valley and Ione Landfills, and financial assurance under WAC 173-304. |

2.5 RECOMMENDATIONS

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 2.4 and recommended the following to Pend Oreille County for further action and implementation:

**2.5.1 Facility and Equipment Recommendations**

* **Alternative 2**: Baler and building for recyclable materials at the South County Transfer Station.
* **Alternative 3**: CDL diversion area at the South County Transfer Station.
* **Alternative 4**: Facility modifications for improved site security at Usk Drop Box Site.
* **Alternative 5**: Scale at Usk Drop Box Site

**2.5.2 Operations and Public Education Recommendations**

* **Alternative 1**: Evaluate public staffing alternatives for the transfer station and drop box sites.
* **Alternative 2**: Improve site layout and signage at Ione Drop Box site to optimize recycling loads.
* **Alternative 6**: Evaluate offsite recycling collection strategies.
* **Alternative 7**: Develop public education materials, related to solid waste management within the County, for distribution at the facilities and other venues (County Fair, schools, Courthouse, etc.).
* **Alternative 9**: Evaluate computerized scaling at all three facilities.

**2.5.3 Program and Administrative Recommendations**

* **Alternative 2**: Assess the tipping fees and mechanisms for adjustment.
* **Alternative 3**: Continue to seek grant funding opportunities.
* **Alternative 4**: Evaluate the need for program fees and minimum transaction fees.
* **Alternative 5**: Evaluate disposal and operations contract options.
* **Alternative 6**: Evaluate post-closure monitoring requirements for closed Deer Valley and Ione Landfills, and financial assurance under WAC 173-304.

**Pend Oreille County**

# Solid Waste Management Plan Update

# Section 3.0

## RECYCLING and WASTE REDUCTION

**3.1 INTRODUCTION**

Recycling is defined as transforming or remanufacturing waste materials into usable or marketable commodities, rather than landfill disposal, and provides environmentally responsible and economically sustainable alternatives to traditional solid waste management practices.

Waste reduction practices result in less generated waste and corresponding decreased environmental problems associated with waste disposal[[5]](#footnote-5). The significant overall economic and environmental benefits lead to waste reduction as a statewide priority for solid waste management strategies.

This section summarizes existing recycling and waste reduction practices in Pend Oreille County, key issues and components, and recommended alternatives proposed to work towards the following goals and objectives.

* + 1. **Recycling and Waste Reduction Goals and Objectives**

The County will continue to endeavor and establish goals to increase recycling and waste reduction efforts through improvements in recycling opportunities, education, facilities, and markets. Although recycling rates were estimated to increase (as a percentage of MSW generated) at a rate of 1/2% (one half percent) per year (based on population projections), the recycling rate for Pend Oreille County has been consistently (since 1996) less than 10% of the total volume of municipal solid waste collected for disposal.

In order to work towards the Washington State goal of achieving a 50% municipal solid waste (MSW) recycling rate[[6]](#footnote-6) and increase waste reduction efforts, the following objectives are established for Pend Oreille County:

* Recycle materials before long-haul transport for landfill disposal and increase annual recycling rates.
* Ensure access to recycling collection services for urban/rural residences, businesses, and industry.
* Locate recycling sites to optimize service levels and transportation efficiencies.
* Promote local recycling businesses to support economic development within the County.
* Encourage competition to reduce costs of collection and processing.
* Reduce waste disposal through reuse and reduction practices.
* Reduce the amount and toxicity of disposed waste materials through reuse or avoiding initial generation.
* Support implementation of state and national level initiated waste reduction measures, and promote on a local level.

**3.2 EXISTING CONDITIONS**

**3.2.1 Recycling Facilities**

The County owns (with the exception of scrap metal containers provided by the recycler) recycling drop-boxes (40 cubic yard capacity) that are provided at the three municipal solid waste (MSW) facilities: South County (Newport), North County (Ione), and Central County (Usk) (refer to Figures 1-1 through 1-7). Use of the recycling drop boxes is free to the public, with informational signs providing directions to the correct locations within the sites for particular items. Contract station attendants monitor public use of the boxes, open and close the boxes for transport, notify the County of any problems that may arise, and arrange transport of full boxes to recycling facilities. County personnel are responsible for maintaining the boxes, and sorting and cleaning recyclable materials. The collection boxes are transported, under contract, to various recyclers with payment to the County (recycling income) for materials. Compostable materials (clean green) are currently not diverted from the solid waste stream.

**3.2.2 Commodities**

Recyclable materials from residential sources are collected by Pend Oreille County at the three transfer station and drop box sites, and commercial/industrial materials are managed directly with recycling contractors. Table 3-1 summarizes current recycling strategies.

**Table 3-1**

|  |  |
| --- | --- |
| **Sources and Processing** | **Recycling Destinations** |
| **Paper:** newspaper, magazines, books (hard covers removed). No paper contaminated with food, paints, or cleaning solvents. No wet paper. | **Ponderay Newsprint – Usk, (Pend Oreille County)**  The County collects mixed paper (office and newsprint) at the three transfer stations, in 20-cy roll-off covered boxes (owned by the County), and utilizes the operations contractor to transport the paper to sell to Ponderay Newsprint at a contracted mileage rate. County personnel clean the boxes by removing undesirable materials, string, and brown paper bags prior to delivery. |
| **Aluminum Cans:** separated and drained | **Du-Mor Recycling – Spokane (Spokane County)**  Currently the County collects aluminum cans at the three transfer stations, using 20-cy roll-off covered boxes (owned by the County), and the operations contractor transports the materials to sell to Du-Mor Recycling in Spokane at a contracted mileage rate. |
| **Tin/Steel Cans:** food/drink cans only, rinsed and labels removed. | **Du-Mor Recycling – Spokane (Spokane County)**  Currently, the County collects tin/steel cans at the three transfer stations, using 20-cy roll-off covered boxes (owned by the County), and the operations contractor transports the materials to sell to Du-Mor Recycling in Spokane at a contracted mileage rate. |
| **Corrugated Paper (Cardboard):** Two-ply brown cardboard. No waxed boxes, overseas cardboard or single-ply chipboard (such as cereal boxes, or paper towel cores or egg cartons). | **Du-Mor Recycling – Spokane (Spokane County)**  Currently, the County collects cardboard at the three transfer stations, using 20-cy roll-off covered boxes (owned by the County), and pays the site operation contractor to transport the boxes to Du-Mor Recycling in Spokane (at a contracted mileage rate and a haul distance of approximately 100 miles round trip). Du-Mor Recycling pays the County for cardboard (OCC), depending on current market prices. |
| **Ferrous Metals:** Scrap iron, steel only. No wood or other materials (non-ferrous metals). | **American Recycling – Spokane (Spokane County)**  The County currently pays rental on three 20-cy roll-off boxes. The vendor transports the boxes (with no mileage charge) when full and pays the County for the value of the metal based on current market prices. |
| Glass: | Newport (Deer Valley) Transfer Station and Ione Drop Box Site (Pend Oreille County)  The County collects and stockpiles clean container glass. No window glass, light bulbs, fluorescent lights, or cathode ray tubes are allowed and removed from the piles when found and when it is safe and feasible to do so. The goal of the container glass stockpiles is to incorporate glass into gravel base for road construction. However, due to location and quantity issues, this has not been an economic option. Road aggregate use is dependent upon the proximity of the pile to crusher sites and incorporation of the glass handling into project requirements. As stockpiles grow, reuse potential improves. Accepting container glass, while not generating revenue for the County, does save disposal costs for area residents. |

|  |  |
| --- | --- |
| **Sources and Processing (cont’d)** | **Recycling Destinations (cont’d)** |
| **Vehicle Batteries:** | **Toby’s Battery and Autoelectric, LLC – Spokane (Spokane County)**  Currently, Pend Oreille County’s HHW/Recycling Coordinator transports all vehicle batteries to Toby’s in Spokane. |
| **Rechargeable Batteries and Cell Phones:** | **Call 2 Recycle – Atlanta, Georgia**  These batteries and old cell phones can either be left at the HHW facilities or several Pend Oreille County offices have collection boxes available for public use. Free postage-paid boxes are provided by Call 2 Recycle to collect and ship the rechargeable batteries and old cell phones left at the HHW facility by County residents. |
| **Used Oil:** Collected at the transfer station and drop box sites and checked for reuse.  No charge for 5 gallons or less.  $20.00/gallon for 6 gallons or more.  Large quantities by inspection and approval. | **Pend Oreille County Shops**  Used in shop oil burning stoves and provided to other used oil burners in the area. |
| **Used Antifreeze:** Collected at the Transfer Station and Drop Box Sites and evaluated for reuse.  No charge for 5 gallons or less.  $20.00/gallon for 6 gallons or more.  Large quantities by inspection and approval. | Provided to other businesses who use the antifreeze to keep their machinery working through the winter, or the County pays a fee to **Earth 1st Fluid Recovery (Hayden, Idaho)** to extract the antifreeze from the storage drums and process. |
| **Tires:** Collects a few tires at a time from franchise loads and self-haulers. If less than 3 tires, disposal cost is included in the standard tipping fee. The County charges $20 per tire for three or more at a time. | Tires can be sent to the regional landfill at a rate of a couple per load, but this is not a preferred option. Tires are generally not considered recyclable, but can be shipped in large loads to regional facilities at considerable cost. |
| **Appliances**: White goods are accepted as metal, with Freon-based refrigerators and other appliances requiring processing prior to recycling. | See **Section 5** (MRW section) for additional information on refrigerators. |
| **Wood Pallets**: Collected in a pile next to tipping floor at Deer Valley Transfer Station. | Collected by self-haulers to reuse the pallets, wood or burn them. |
| **Auto Hulks:** | The County has held a collection event in the past in which several hundred hulks were collected and processed at no charge. Currently, hulks are collected by a contractor and staged at Deer Valley Transfer Station for processing. |
| **Inkjet, laser/fax cartridges** | **Print Cartridge Recycle.com – Auburn, Washington**  The cartridges can be dropped off at the transfer station or drop box sites. Additionally, several Pend Oreille County offices and the Post Office have collection boxes. Free postage-paid boxes are provided to collect and ship the cartridges dropped off at the Transfer Station and Drop Box Sites by County residents. |

3.2.3 Waste Reduction Programs

Previous Solid Waste Management Plan (2002 Update) recommendations focused on facility improvements to decrease operating and transportation costs associated with providing and improving recycling opportunities within the County; and although Pend Oreille County currently supports recycling and household hazardous waste (**Section 5**) collection programs at the three transfer station and drop box sites, focused efforts on waste reduction programs and practices have not been initiated by the County. The County does support and help facilitate independent waste reduction efforts by the business community including:

* Conservation District
* Ponderay Newsprint
* Teck Cominco
* School Districts
* Public Utility District (PUD)

**3.3 KEY ISSUES**

**3.3.1 Recycling**

The original ***Solid Waste Management Plan*** (September 1994) provided a summary of recommendations to increase MSW diversion rates, such as establishing a Countywide recycling program by developing a primary recycling facility at South County (Newport), with satellite facilities at Central County (Usk) and North County (Ione). Separated materials from Usk and Ione would be consolidated at the South County (Newport) Transfer Station for processing and transport to market.

Recommended facility improvements and equipment included:

* South County (Newport): covered drop boxes, building space for processing recyclables, impermeable composting pad, contract grinding services, glass bunker and crushing area, fenced metal storage area.
* Central County (Usk): covered drop boxes, fenced metal storage area.
* North County (Ione): covered drop boxes, impermeable composting pad, contract grinding services, fenced metal storage area.
* Equipment: truck with lift, trailer, forklift, scales, baler, drop-boxes, glass crusher, level truck, chipper/shredder, separator, and backhoe/loader.

Although some of these previous plan recommendations have been implemented, providing the public with a broader range of recycling opportunities and total quantities of recyclable materials have increased from 1996 through 2007 (as summarized in Table 3-2 and Figures 3-1 and 3-2), recycling rates have been consistently low (less than 10%) and unchanged by population trends and MSW generation volumes. Recycling has also consistently been an unprofitable operation due to transportation costs incurred by the County, the distance (mileage charge) to markets, and the low value of the materials. However, material prices have continued to increase (although still offset by transportation cost increases from escalating fuel prices), the collection boxes do provide the public with an opportunity to dispose of materials that would otherwise be collected as MSW, incurring additional disposal costs for the County.

##### Table 3-2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Annual Recycling Weights (ARW)**  **[pounds]** | | | | | | | | |
|  | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **Average**  **2003-2008**  **(1)** | **Average**  **1996-2000** |
| **Commodities** | | | | | | | | |
| **Ferrous Metals** | 904,260 | 798,636 | 851,020 | 873,200 | 839,160 | 745,720 | 835,333  (+32%) | 631,200 |
| **Newspaper** | 171,500 | 161,560 | 263,420 | 165,940 | 177,240 | 196,220 | 189,313  (+81%) | 104,680 |
| **Corrugated Paper** | 132,155 | 178,260 | 187,490 | 211,830 | 233,030 | 269,490 | 202,043  (+154%) | 79,640 |
| **Aluminum Cans** | 4,540 | 2,979 | 7,322 | 8,220 | 4,768 | 7,410 | 5,873  (+48%) | 3,960 |
| **Tin Cans** | 10,460 | --- | 8,700 | 8,820 | 11,740 | 18,850 | 11,714  (+21%) | 9,680 |
| **Glass** | --- | --- | 29,200 | --- | 86,840 | 108,660 | 49,533  (+486%) | 10,200 |
| **Other (2)** | --- | --- | --- | --- | --- | 38,516 | 38,516 | --- |
|  | | | | | | | | |
| **Totals [tons]** | **611** | **571** | **674** | **634** | **676** | **692** | **643**  **(+53%)** | **420** |
| **MSW Totals [tons]** | **6,787** | **7,391** | **7,516** | **8,922** | **8,704** | **8,124** | **7,907**  **(+28%)** | **6,175** |
| **Recycling Rates** | **9%** | **8%** | **9%** | **7%** | **8%** | **8.5%** | **8.25%**  **(+18%)** | **7%** |

**Notes:**

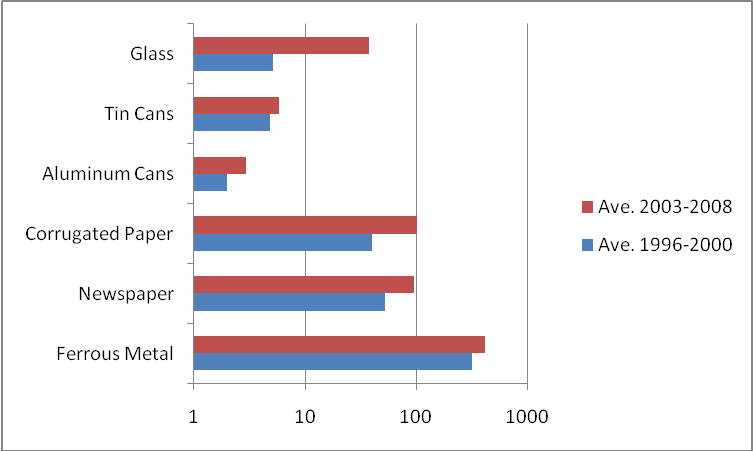
Information Sources: POC Annual Recycling Totals, and 2002 SWMP Update

(1) Values in “( )” are percent changes: averages from 2003-2007 / averages from 1996-2000.

(2) Also recycled in 2008: aluminum radiators (430 pounds), compressors (2,261 pounds), brass (104 pounds), copper (171 pounds), white goods – appliances (16,260 pounds), auto batteries (19,140 pounds), and laser/inkjet cartridges (150 pounds).

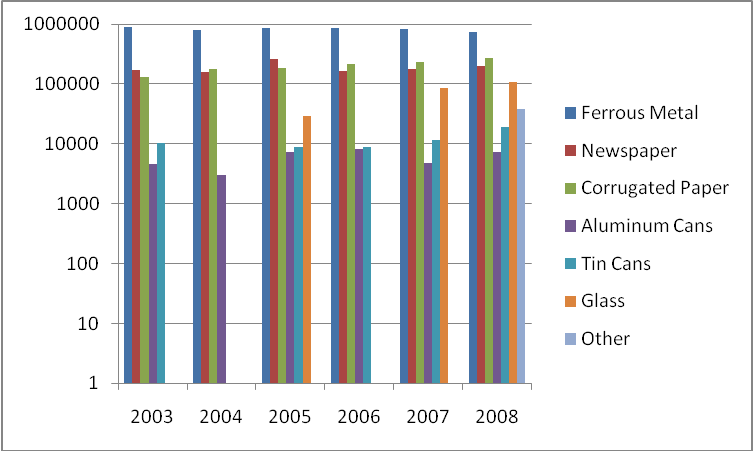
**Figure 3-1: Comparison of Average Annual Recycling Rates**

**[weights in tons – logarithmic scale]**

****

**Figure 3-2: Annual Recycling Rates by Commodity (2003-2008)**

**[Weight in pounds – logarithmic scale]**



**3.3.1.1 Electronic Waste[[7]](#footnote-7)**

Electronic waste refers to discarded computers, monitors, printers, fax machines, cell phones, electronic cables, and other electronic products. ***E-Cycle Washington*** is a program paid for by electronics manufacturers that provides responsible recycling for selected electronic products[[8]](#footnote-8). This new program is required under a Washington State law (Chapter 70.95N RCW) that was passed in 2006. The new law is an example of ***Producer Responsibility***, where the company that makes a product is responsible for minimizing the product’s environmental impact throughout all stages of the products’ life cycle, including end of life management (discussed further in subsection **3.3.2 Waste Reduction**).

The law requires that manufacturers set up a recycling program, but gives them implementation flexibility. The Washington Materials Management and Financing Authority (WMMFA) is the organization that sets up and runs the recycling program on behalf of the 200 member manufacturers that sell their computers and TVs in Washington State. The WMMFA has submitted a recycling plan to the Washington State Department of Ecology (Ecology), which provides the details of the program. The WMMFA has negotiated with collection sites throughout the state to provide recycling services. Collection sites are required, at a minimum, in every county and every city with a population of 10,000 or more. Once the program is launched in January, a list of collection sites will be available on [www.ecyclewashington.org](http://www.ecyclewashington.org) web site or by calling 1-800-RECYCLE. TVs, monitors, desktop computers, and laptop computers are accepted for recycling at no cost through E-Cycle Washington. Although the program does not provide free recycling for other electronic equipment (such as: printers, computer mice, fax machines, DVD players, MP-3 players, gaming consoles, keyboards, and other peripheral computer equipment), these electronic products can be recycled but may be assessed a fee. Pend Oreille County does not accept these devices for recycling and there are currently no collection sites within the County who accept these products, even for a fee.

Currently, there are three (3) facilities contracted with the manufacturer’s group to process electronics collected by the E-Cycle Washington program:

* Total Reclaim (Seattle, Washington)
* IMS Electronics Recycling Management (Vancouver, Washington)
* ECS Refining (Santa Clara, California – will be building a facility in Washington)

These facilities are required to process electronics in accordance with the Standard Plan, which describes how the manufacturer’s group (Authority) will be operating the recycling plan for all the electronics it collects. This information can be reviewed at the Washington State Department of Ecology web site[[9]](#footnote-9).

**3.3.1.2 Composting**

Pend Oreille County currently does not divert yard waste from the solid waste stream, because most residents have managed these materials through home based composting and outdoor burning. However, outdoor burning has been banned in all urban growth areas in Washington (since January 1, 2007 and affecting all of the incorporated communities within the County). This outdoor burn ban may increase pressure on the County programs (such as Master Gardeners) to provide yard waste composting, mulching, and vermiculture (worm-based composting) classes and programs to assist residents with other management strategies.

**3.3.1.3 Construction, Demolition, and Land clearing (CDL) Debris**

Construction, demolition, and land clearing (CDL) debris presents an opportunity for diversion from the solid waste stream by either source separation of recyclable materials (primarily untreated wood and metal) or managing mixed loads at the South County (Deer Valley) Transfer Station. This is discussed further in **Section 4.0**.

**3.3.2 Waste Reduction**

The following laws apply to waste reduction and recycling in Washington State:

* Ch. 35.21 RCW – Miscellaneous provisions affecting all cities and towns
* Ch. 36.58 RCW – Solid waste disposal
* Ch. 70.93 RCW – Waste reduction, recycling and model litter control act
* Ch. 70.95 RCW – Solid waste management reduction and recycle
* Ch. 81.77 RCW – Solid waste collection companies

Because waste reduction decreases the economic impacts on local governments for waste collection, processing, marketing, and/or disposal of waste, it is the State’s top priority in the hierarchy for managing solid waste. Although it is acknowledged that waste reduction is a priority, implementing effective waste reduction strategies (as a component of the overall County responsibility for solid waste) is not economically feasible without significant funding assistance.

The following are general key components of effective waste reduction strategies[[10]](#footnote-10):

**3.3.2.1 Product Stewardship**

The concept of product stewardship emphasizes a shared environmental responsibility by:

* Manufacturers who reduce use of toxic substances; design for durability, reuse, and recyclability; and take increasing responsibility for the end-of-life management of products they produce.
* Retailers who support manufacturers who offer sustainable products and greater environmental performance; educate consumers on environmentally preferable products; and enable consumers to return products for recycling.
* Consumers who make responsible buying choices that consider environmental impacts; purchase and use products efficiently; and recycle the products they no longer need.
* Government Agencies who develop cooperative efforts with the business community; use purchasing power to support sustainable products; and support product stewardship legislation for selected products.

There is no single strategy for implementing product stewardship practices. Each product uses different resources, has different environmental impacts, and has different distribution and collection needs.

**3.3.2.2 Procurement**

Purchasing power provides significant influence on manufacturers to develop sustainable products. Initially, most efforts focused on demanding products made from recycled materials; and the Environmental Protection Agency (EPA) developed a list of designated products and associated recycled-content recommendations for federal agencies to use when making purchases, known as Comprehensive Procurement Guidelines.

Expansion beyond these initial efforts lead to “Environmentally Preferable Purchasing” (EPP) of products typically defined as having a lesser or reduced effect on human health and the environment when compared with competing products that serve the same purpose. Product criteria include: recycled content, reduced waste, less energy usage, less toxicity, and more durability.

**3.3.2.3 Internal Waste Reduction Policies**

Local governments and businesses are encouraged to learn more about waste reduction practices and work towards implementing and promoting those practices in the workplace and at home.

**3.3.2.4 Education Programs**

Waste reduction education stresses residential and business product selection based upon: increased product life, reusable and durable qualities, less packaging, decreased product consumption, more efficient use of resources, opportunities for reuse, less wasteful alternatives, and reduced toxicity.

**3.3.2.5 Business Waste/Materials Exchanges**

Business waste exchanges can offer opportunities for managing hazardous materials and industrial process wastes that cannot be eliminated or reused within the company. Materials exchanges of non-hazardous items are available for residents to use as well. Acting as a liaison between waste generators and potential users, waste exchanges are operated by public (states or local governments) as well as private entities. Increasingly, waste exchanges are making use of the internet to create online databases for sharing information, developing subscriber lists (materials wanted or available), and other data.

* 1. **ALTERNATIVES**

|  |  |  |
| --- | --- | --- |
| **Recycling Alternatives** | | |
| **Facility and Operational Improvements** | Develop facility and operational improvements to increase recycling and reuse rates within the County. | Obtain a baler and associated equipment and facility infrastructure at Deer Valley Transfer Station.Provide additional County staff at the Ione Drop Box Site to oversight recycling efforts.Provide additional recycling drop boxes at selected locations (such as fire stations and schools) within the County.Encourage Ecology to provide incentives to public/private business partnerships to initiate curbside recycling.Develop an E-waste collection site.Develop an “approved” (by County staff) re-useable items area at the transfer station/drop box sites.Evaluate opportunities for adding additional recyclable materials for collection.Coordinate with the school districts, local businesses, and post offices to collect mixed paper for recycling.Seek out other outlets for baled recyclables to optimize transportation costs.Evaluate adding plastics (as baled recyclable).Evaluate a “red bag” program for curbside collection of recyclable materials.Obtain portable recycling bins on trailers to haul behind a pickup for placement at public venues (Poker Paddle, County Fair, etc.). |
| Education | Provide and facilitate public education strategies to increase recycling and reuse rates within the County. | Expand the County website to provide additional information on County programs and regional links.Provide additional County staff at the Ione Drop Box Site to oversight recycling efforts and assist with public education.Develop a community service program through the schools to sort onsite generated recyclables and food waste.Encourage local restaurants and grocery stores to donate food items to charitable organizations and recycle food waste. |
| **Administration** | Develop mechanisms to maintain economic viability of the solid waste system within the County. | 1. Consider a flow control ordinance for solid waste within the County. 2. Evaluate fee structure for solid waste disposal to support recycling programs or establish fees for recycling. |

|  |  |  |
| --- | --- | --- |
| **Recycling Alternatives (cont’d)** | | |
| **Composting** | Develop a strategy for diverting yard waste and other compostable materials from the solid waste stream. | 1. Encourage Master Gardeners to provide yard waste composting and related classes to the public. 2. Evaluate yard waste collection at the transfer station/drop box sites. 3. Promote yard waste collection events (spring and fall). 4. Develop an in-County composting facility. |

|  |  |  |
| --- | --- | --- |
| **Waste Reduction Alternatives** | | |
| **Product Stewardship & Procurement** | Develop partnerships with private sector organizations to provide reuse and recycling options for select products.  Use purchasing power to influence markets for recovered materials and to encourage product stewardship.  Support product stewardship efforts. | 1. Evaluate opportunities with local businesses to implement a program within the County that returns materials to the originators for reuse or recycling. 2. Provide an E-Waste Collection Site at Deer Valley Transfer Station 3. Facilitate waste reduction efforts within the business community and public agencies within the County. 4. Promote the use of EPA’s Comprehensive Procurement Guidelines for reference in purchasing decisions and evaluate employing Environmentally Preferable Purchasing (EPP) practices by County agencies to increase County use of recycled materials and to encourage product stewardship through purchasing power. 5. Encourage other public agencies and contractors to evaluate and employ EPP through County contracts and education. 6. Support state and national efforts on the local level through participation and information transfer. |
| **Internal Waste Reduction Practices** | Implement in-house waste reduction programs and practices. | 1. Refer to the following as some examples, and provide internal incentives (such as special recognition) for employee performance. |
| * Promote electronic communications (instead of paper copies), as much as practicable. * Double-sided photocopying and printing. * Promote electronic (rather than paper) information, forms, and applications, as much as practicable. * Encourage the use of washable and reusable dishes and utensils. * Utilize rechargeable batteries and recycle. * Streamline and computerize forms as much as practicable. * Resort to “on-demand” printing of documents and reports as they are needed. * Lease long-life products when service agreements support maintenance and repair rather than new purchases. * Share equipment and occasional use items. * Choose durable products rather than disposable. * Reduce product weight or thickness when effectiveness is not jeopardized in products such as, but not limited to, paper and plastic liner bags. * Buy in bulk, when storage and operations exist to support it. * Reuse products such as, but not limited to, file folders, storage boxes, office supplies, and furnishings. * Mulch pruned material from landscapes and use on site. | | |

|  |  |  |
| --- | --- | --- |
| **Waste Reduction (cont’d)** | | |
| **Waste Reduction Education** | Coordinate and administer waste reduction programs. | 1. Facilitate, coordinate, and enhance current education efforts through the County website, printed materials available at the Courthouse, coordination with the Conservation District programs, school outreach programs, and public events. 2. Assist with business waste reduction/recycling audit programs. |
| **Waste/Materials Exchanges** | Coordinate, administer, and promote waste/materials exchanges. | 1. Encourage use of online materials exchange for primarily residential users, such as 2good2toss ([www.2good2toss.com](http://www.2good2toss.com)) developed by i-WasteNot Online Resource Recovery Systems by including links on the County website. 2. Assist with and promote business waste exchange audit programs. 3. Provide additional recycling/waste reduction information and links on the County website. |

**3.5 RECOMMENDATIONS**

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 3.4 and recommended the following to Pend Oreille County for further action and implementation:

**3.5.1 Recycling Alternatives**

**3.5.1.1 Recommendations for Facility and Operational Improvements**

* + - * **Alternative 1:** Obtain a baler and associated equipment and facility infrastructure at Deer Valley Transfer Station.
      * **Alternative 4:** Encourage Ecology to provide incentives to public/private business partnerships to initiate curbside recycling.
      * **Alternative 5:** Develop an E-waste collection site.
      * **Alternative 6:** Develop an “approved” (by County staff) re-useable items area at the transfer station/drop box sites.
      * **Alternative 7:** Evaluate opportunities for adding additional recyclable materials for collection.
      * **Alternative 8:** Coordinate with the school districts, local businesses, and post offices to collect mixed paper for recycling.
      * **Alternative 9:** Seek out other outlets for baled recyclables to optimize transportation costs.
      * **Alternative 12:** Obtain portable recycling bins on trailers to haul behind a pickup for placement at public venues (Poker Paddle, County Fair, etc.).

**3.5.1.2 Education Recommendations**

* + - **Alternative 1:** Expand the County website to provide additional information on County programs and regional links.
    - **Alternative 3:** Develop a community service program through the schools to sort onsite generated recyclables and food waste.
    - **Alternative 4:** Encourage local restaurants and grocery stores to donate food items to charitable organizations and recycle food waste.

**3.5.1.3 Program and Administrative Recommendations**

* + - **Alternative 2:** Evaluate fee structure for solid waste disposal to support recycling programs or establish fees for recycling.

**3.5.1.4 Composting Recommendations**

* + - **Alternative 1:** Encourage Master Gardeners to provide yard waste composting and related classes to the public.
    - **Alternative 2:** Evaluate yard waste collection at the transfer station/drop box sites.
    - **Alternative 3:** Promote yard waste collection events (spring and fall).

**3.5.2 Waste Reduction Alternatives**

**3.5.2.1 Product Stewardship & Procurement Recommendations**

* + - **Alternative 1:** Evaluate opportunities with local businesses to implement a program within the County that returns materials to the originators for reuse or recycling.
    - **Alternative 2:** Provide an E-Waste Collection Site at Deer Valley Transfer Station
    - **Alternative 3:** Facilitate waste reduction efforts within the business community and public agencies within the County.
    - **Alternative 4:** Promote the use of EPA’s Comprehensive Procurement Guidelines for reference in purchasing decisions and evaluate employing Environmentally Preferable Purchasing (EPP) practices by County agencies to increase County use of recycled materials and to encourage product stewardship through purchasing power.
    - **Alternative 5:** Encourage other public agencies and contractors to evaluate and employ EPP through County contracts and education.
    - **Alternative 6:** Support state and national efforts on the local level through participation and information transfer.

**3.5.2.2 Education Recommendations**

* + - **Alternative 1:** Facilitate, coordinate, and enhance current education efforts through the County website, printed materials available at the Courthouse, coordination with the Conservation District programs, school outreach programs, and public events.

**3.5.2.3 Waste/Materials Exchanges Recommendations**

* + - **Alternative 1:** Encourage use of online materials exchange for primarily residential users, such as 2good2toss ([www.2good2toss.com](http://www.2good2toss.com)) developed by i-WasteNot Online Resource Recovery Systems by including links on the County website.
    - **Alternative 3:** Provide additional recycling/waste reduction information and links on the County website.

# Pend Oreille County

# Solid Waste Management Plan Update

# Section 4.0

## CONSTRUCTION, DEMOLITION, LANDCLEARING AND INERT WASTE MANAGEMENT

**4.1 INTRODUCTION**

Disposal of construction, demolition, and land clearing (CDL) debris in limited purpose landfills is regulated under WAC 173-350-400. As alternatives to disposal, CDL offers opportunities for materials recovery and reuse; as well as segregation of inert materials, meeting the criteria described under WAC 173-350-990, for disposal under WAC 173-350-410 (inert waste landfill). Challenges, particularly associated with demolition debris, are related to the presence of hazardous materials that were not removed prior to demolition and hauled to the transfer station for handling by the County. This creates potential human health exposures for workers and liability concerns for the County.

The following sections summarize goals for Pend Oreille County related to management of CDL and inert wastes and recoverable materials, existing conditions, key issues and concerns, alternative strategies for management, and recommendations for implementation.

CDL and inert waste management goals for Pend Oreille County include:

* Minimize disposal of CDL and inert waste through recovery, reuse, and reduction programs.
* Develop and maintain guidelines and management strategies for CDL and inert waste recovery and disposal that are protective of operations staff and the environment.
* Allow opportunities and promote CDL and inert recycling and associated businesses to reduce costs of collection, transfer, disposal, and recovery.
* Include CDL and inert waste reuse and reduction in existing public education programs.

**4.2 EXISTING CONDITIONS**

Under regulatory definitions, CDL is solid waste (primarily inert) material generated from the demolition of buildings, roads, and other structures. Inert waste, defined as materials resistant to decomposition or degradation (criteria are defined in WAC173-350-990), is permitted for disposal in unlined landfills (permitted under WAC 173-350-410 requirements); whereas CDL must be disposed of in limited purpose landfills (permitted under WAC-173-350-400 requirements) that are constructed with bottom liners and leachate collection systems. Table 4-1 summarizes the types of waste materials by regulatory definition and Table 4-2 summarizes current facilities in the area handling CDL and Inert Wastes.

**Table 4-1**

|  |  |
| --- | --- |
| **Type of Waste**  **Disposal Requirements** | **Regulatory Definitions** |
| Demolition / Construction Debris  Limited Purpose Landfills  WAC 173-350-400 | **What Is Demolition Waste**: concrete, brick, bituminous concrete, wood and masonry, composition roofing and roofing paper, steel, and minor amounts of other metal like copper.  **What Is Not Demolition Waste:** Plaster (i.e., sheetrock or plaster board) or any other material, other than wood, that is likely to produce gases or a leachate during the decomposition process, and asbestos wastes. |
| Wood (Land clearing) Debris  Limited Purpose Landfills  WAC 173-350-400 | **What Is Wood Debris:** Solid waste consisting of wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, construction, demolition, handling and storage of raw materials, trees, and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hogged fuel, and log sort yard waste.  **What Is Not Accepted As Wood Debris:** Wood pieces or particles containing paint, laminates, bonding agents or chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate. |
| Inert Waste  Inert Landfills  WAC 173-350-410 | **What Is Inert Waste:** Cured concrete that has been used for structural and construction purposes, including embedded steel reinforcing and wood, that was produced from mixtures of Portland cement and sand, gravel, or other similar materials; asphaltic materials that have been used for structural and construction purposes (e.g., roads, dikes, paving) that were produced from mixtures of petroleum asphalt and sand, gravel, or other similar materials; brick and masonry that have been used for structural and construction purposes; ceramic materials produced from fired clay or porcelain; glass (composed primarily of sodium, calcium, silica, boric oxide, magnesium oxide, lithium oxide or aluminum oxide) including but not limited to, window glass, glass containers, glass fiber, glasses resistant to thermal shock, and glass-ceramics; stainless steel; and aluminum.  **What Is Not Considered To Be Inert:** Waste roofing materials or glass containing significant concentrations of lead, mercury, or other toxic substances. |
| Municipal Solid Waste (MSW)  Disposal regulated under WAC 173-351 | All solid and semisolid wastes including, but not limited to: garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes (non-recoverable and not meeting requirements for disposal in a limited purpose landfill), abandoned vehicles or parts, contaminated soils and dredged material, and recyclable materials. |
| Hazardous Waste  Disposal regulated under WAC 173-303 | All dangerous and extremely hazardous waste, including substances composed of both radioactive and hazardous components. |

**Table 4-2 (cont’d)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Facility** | **Name** | **Contact Numbers** | **Materials/Services** | **Operations** |
| Limited Purpose Landfill | Graham Road Recycling and Disposal Facility  1820 S. Graham Rd.  Medical Lake, WA | 509-244-0151 | Wood waste, lath and plaster, stumps (6 inches or larger) | Mondays through Fridays, 7:00 a.m. to 4:00 p.m.; go past the main gate of FAFB, first left on Graham Road; ½ mile south on Graham Road, turn right. |
| Asbestos (24-hour notice required) | Mondays through Fridays, 7:00 a.m. to 2:30 p.m.; must be double-wrapped in 6-mil plastic |
| Tires | Call for tire prices |
| Petroleum-contaminated soil, creosote-contaminated wood, railroad ties, concrete, asphalt, cardboard, plastics, metals |  |
| Inert Facilities | Diversified Recycling Industry  8716 N. Green St.  Spokane, WA | 509-467-2823 | Rock and dirt | Mondays through Fridays, 7:00 a.m. to 6:00 p.m.; Saturday from 8:00 a.m. to 5:00 p.m.; Sunday from 9:00 a.m. to 3:00 p.m. |
| Fencing, decking, lumber, pallets, logs, and limbs | These materials are not inert and are reused by Diversified Recycling Industry |
| Recycling Facilities | ABCO  Wood Recycling, LLC  3704 E. Dalke Ave.  Spokane, WA | 866-303-0663  509-482-0663 | Wood, land clearing debris | 30-cy and 40-cy drop boxes available.  Call for locations, operating hours, and prices. |

It is estimated that up to 10% of the MSW (or about 600 tons) collected at the Transfer Station and Drop Box Sites could be demolition debris and/or inert waste. These materials are often incorporated into MSW loads, commingled by self-haulers and franchise haulers. Recoverable and reusable demolition debris found on the South County (Newport) Transfer Station tipping floor, when practicable and as time allows, is separated by hand or equipment and stockpiled for reuse.

* Dimensional lumber and wood pallets will be and are separated and stockpiled for reuse.

* Metal pipes, metal roofing, metal electrical boxes, wiring and conduit, and metal appliances are separated and recycled as scrap metals.
* Asphalt roofing, painted and treated wood, carpeting, ceramics, window glass, and unusable furniture will not be separated and will be handled and treated as MSW.
* Asphalt, concrete and masonry when encountered in clean loads, will be stockpiled for reuse by the County.

**4.3 KEY ISSUES**

* Limited staffing and revenue sources for implementing special programs.
* Currently no policy or guidelines are in place for certifying which CDL loads do not contain hazardous materials.
* Cost-effective opportunities exist for recovering and reusing many CDL materials which would reduce the costs for disposal as solid waste.
* Potential for County CDL and/or Inert waste landfills.
* Need for a Disaster Management Plan for emergency disposal activities that coordinates with federal, state, and local agency emergency plans.

**4.4 CDL and INERT WASTE MANAGEMENT ALTERNATIVES**

|  |  |  |
| --- | --- | --- |
| **Facility and Operational Improvements** | Develop management policies for CDL and Inert wastes.  Evaluate options for optimizing diversion of CDL and Inert materials from the solid waste stream.  Ensure that a contingency plan is in place to manage disposal of materials resulting from natural disaster occurrences within the County. | 1. Develop acceptance criteria for CDL and Inert waste at the transfer station/drop box sites. 2. Provide information on the County website and written materials at Planning Department for contractors and residents. 3. Include links to additional information related to hazardous materials in demolition debris and asbestos survey/abatement for commercial and residential use. 4. Develop CDL and Inert waste collection and source separation facility/operational components at the South County (Deer Valley) Transfer Station and Ione Drop Box Site. 5. Evaluate development of a County CDL landfill. 6. Evaluate development of a County Inert Waste landfill. 7. Develop a Disaster Debris Management Plan for the County. |

|  |  |  |
| --- | --- | --- |
| **Public Education** | Provide outreach and education on options for waste reduction and recovery of CDL and Inert waste materials.  Create and promote markets within the County for recycling and reuse of CDL and Inert wastes. | 1. Provide information on the County website and written materials at Planning Department for contractors and residents. 2. Include links to additional information related to deconstruction techniques and green building. 3. Evaluate using land use designations, tax/licensing incentives, permitting, siting, and technical assistance for creating a “Market Development Zone” to attract businesses that utilize recyclable materials, remanufacture products, or provide reuse opportunities. |
| **Administration** | Promote CDL and Inert waste diversion within the County through public works projects. | 1. Develop CDL and Inert waste diversion specifications for public works projects. 2. Use recycled content building specifications for public works projects. 3. Develop a CDL and inert waste diversion ordinance. 4. Evaluate financial incentives/disincentives to encourage recovery of CDL and Inert materials. |

**4.5 RECOMMENDATIONS**

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 4.4 and recommended the following to Pend Oreille County for further action and implementation:

**4.5.1 Recommendations for Facility and Operational Improvements**

* **Alternative 1**: Develop acceptance criteria for CDL and Inert waste at the transfer station/drop box sites.
* **Alternative 2**: Provide information on the County website and written materials at Planning Department for contractors and residents.
* **Alternative 3**: Include links to additional information related to hazardous materials in demolition debris and asbestos survey/abatement for commercial and residential use.
* **Alternative 4**: Develop CDL and Inert waste collection and source separation facility/operational components at the South County (Deer Valley) Transfer Station and Ione Drop Box Site.
* **Alternative 7**: Develop a Disaster Debris Management Plan for the County.

**Pend Oreille County**

# Solid Waste Management Plan Update

# Section 5.0

**MODERATE RISK WASTE MANAGEMENT**

##### 5.1 INTRODUCTION

**5.1.1 Regulatory Framework and Guidelines**

* Hazardous Waste Management Act (Chapter 70.105 RCW)
* Used Oil Recycling Act (Chapter 70.95I RCW)
* ***Guidelines for Development of Local Hazardous Waste Plans***, Washington State Dept. of EcologySolid Waste Services Program Publication #93-99, August 1994
* ***Implementation Guidelines for Local Hazardous Waste Plans***, Washington State Dept. of Ecology Solid Waste Services Program Publication #92-14, July 1992.

Moderate risk wastes (MRW) are hazardous wastes that are exempt or conditionally exempt from the Dangerous Waste Regulations, due to their small quantity[[11]](#footnote-11) or origin as generated from household use. Businesses or institutions generating or accumulating hazardous waste quantities above the small quantity exclusion limits are required to manage the hazardous wastes under more stringent regulatory criteria and requirements. Used oil management requirements were also included in moderate risk waste management strategies in 1991 to address collection sites for recycling and reuse limitations.

**5.1.2 MRW Management Goals**

* Manage MRW with an emphasis on waste reuse and reduction over disposal.
* Monitor MRW and maintain regulatory procedures for tracking quantities recycled and disposed.
* Provide for cost-effective and efficient collection and transfer of MRW, promote MRW recycling, and establish guidelines and strategies for managing specific MRW streams.
* Continue public outreach and education efforts regarding MRW reuse, reduction, and disposal.

###### 5.2 EXISTING CONDITIONS

**5.2.1 Facilities and Operations**

Household Hazardous Waste (HHW) is the primary component of the Moderate Risk Waste (MRW) stream managed by Pend Oreille County. A Household Hazardous Waste (HHW) collection and processing facility is located at the South County (Newport) Transfer Station (refer to Figures 1-1 and 1-2), with additional collection boxes at the Central County (Usk) and North County (Ione) Drop Box Sites.

Moderate risk waste is collected at each of the three County facilities in leak proof containers. Processing and consolidation occur on a regular basis, either onsite or following transport to the appropriate County or vendor facility. All MRW is stored in secured (fenced and gated) areas, and public access is allowed only during facility operational hours. Some products, suitable for reuse, are staged on a “free table”. Longer storage (up to six months), accumulation of the more hazardous items, and MRW processing occurs at the South County (Newport) transfer station MRW facility. The following briefly summarizes standard operating procedures for processing and managing typical materials received at the South County (Newport) facility:

* **Motor Oil**: Recycled into 5-gallon containers, then screened and emptied into 55-gallon drums. The public and County Shop employees pick up drums of used motor oil for fuel source in shop heaters.
* **Antifreeze**: Recycled by the public at the free table or processed and shipped to an appropriate vendor for reuse.
* **Latex paint**: Recycled at the “free table” if useable, or managed as solid waste (5 gallons or less and dry solids only).
* **Oil based paints and flammables**: Oil based paints are made available to the public on the “free table” if they are useable. The remaining are placed into 55-gallon drums and shipped to an appropriate vendor for energy recovery or transported to Spokane County for consolidation with compatible materials.
* **Pesticides, herbicides, and others**: Non-banned items are recycled at the “free table” or processed into packed drums and shipped to Spokane County for consolidation with compatible materials.
* **Refrigerators:** Several hundred refrigerators are collected each year. The County removes and collects the refrigerant gas (Freon) and the compressor oil prior to recycling the hulks as scrap metal. The compressors are placed in leak proof bins and delivered to a metal recycler as a separate item.
* **Batteries:** Stockpiled in leak proof bins and regularly transported to specialty vendors for recycling.
* **E-Waste:** The County has recently agreed to accept limited types of electronic devices at the South County (Deer Valley) Transfer Station. The accepted electronic devices are placed on pallets, shrink-wrapped, and stored until transported off-site.

**5.2.2 Staff Training**

The MRW operations manager/technician has attended available training courses and continues to participate in MRW (as well as MSW and recycling) educational and training opportunities when available in the region.

**5.2.3 Program Budget**

The County MRW program adds a relatively nominal expense component to the overall per ton cost for MSW disposal. Staffing is a full-time position (MRW management shared 50/50 with recycling management responsibilities), and is supported by state grant programs. Most of the collected items are recycled, so MRW disposal costs are nominal. The greatest costs are associated with managing refrigerators and packed drums. Previous grant programs funded existing facilities; and although there is always potential for improvements, the actual facility needs are limited.

**5.2.4 Household Hazardous Waste Quantities**

The majority of collected materials include: automotive waste (oil, filters, antifreeze, and batteries) and paint wastes (solvents, thinners, preservatives, oil and latex paints). Additional wastes typically include: gardening products (pesticides and herbicides), household cleaners, glues, adhesives, and flammables. All wastes are transported to the South County (Deer Valley) Transfer Station MRW facility and processed for reuse or shipment. Table 5-1 and Figure 5-2 summarize estimated annual quantities of MRW (primarily used oil and HHW) managed by the County.

###### Table 5-1

###### Annual Moderate Risk Waste Collection Summary(1)

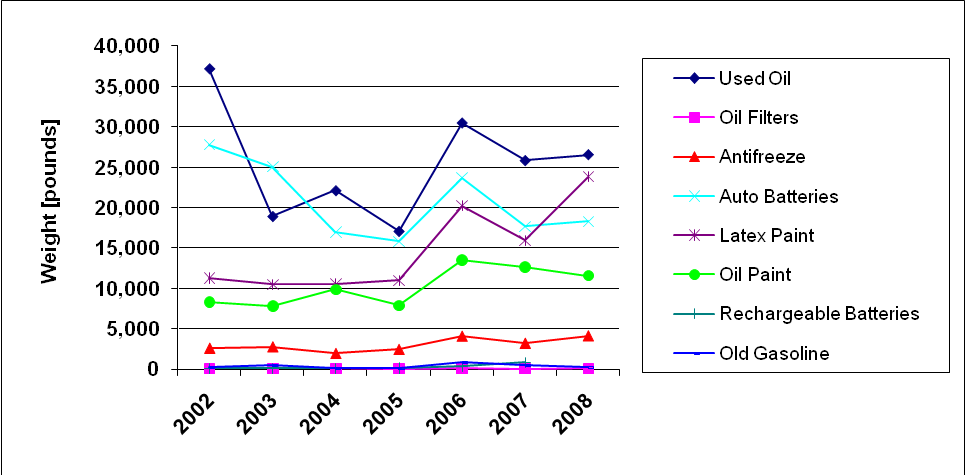
|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Units** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **Average**  **(2002-2008)** |
| Used Oil | pounds | 37,119 | 18,936 | 22,115 | 17,111 | 30,455 | 25,826 | 26,554 | 25,445 |
| **Oil Filters** | pounds | 79 | 86 | 89 | 66 | 80 | 58 | 78 | 77 |
| **Antifreeze** | pounds | 2,600 | 2,770 | 1,952 | 2,456 | 4,088 | 3,208 | 4,128 | 3,029 |
| **Auto Batteries** | pounds | 27,720 | 25,026 | 16,975 | 15,820 | 23,660 | 17,640 | 18,241 | 20,726 |
| **Latex Paint** | pounds | 11,288 | 10,483 | 10,533 | 10,920 | 20,221 | 15,920 | 23,823 | 14,741 |
| **Oil Paint** | pounds | 8,313 | 7,800 | 9,842 | 7,884 | 13,475 | 12,573 | 11,533 | 10,203 |
| **Rechargeable**  **Batteries** | pounds | 98 | 131 | 115 | 146 | 362 | 840 | 823 | 359 |
| **Old Gasoline** | pounds | 262 | 487 | 120 | 130 | 855 | 535 | 230 | 374 |
| **Total Weight (2)** | **pounds**  **tons** | **87,479**  **43.7** | **65,719**  **32.9** | **61,741**  **30.9** | **54,533**  **27.3** | **93,196**  **46.6** | **76,600**  **38.3** | **85,410**  **42.7** | **74,954**  **37.5** |
|  | | | | | | | |  |  |
| **Refrigerators** | each | 153 | 129 | 129 | 19 | 381 | 305 | 305 | 203 |

##### NOTES:

##### (1) Information Source: Pend Oreille County - Annual Household Hazardous Waste Collection Reports.

##### (2): Total excludes collected minimal quantities of pesticides, herbicides, solvents, flammables, acids and bases.

**Figure 5-2**

\ 

* + 1. **Small-Quantity Generators**

As limited resources allow, Pend Oreille County provides ongoing assistance to citizens and small businesses to minimize the generation of hazardous materials and appropriate management of wastes that are generated. Activities include: ongoing educational assistance at the MRW Facility (Deer Valley Transfer Station), information provided on the County website and at the transfer station, and availability of onsite technical assistance (field audits) for small businesses, commercial, and industrial generators in waste reduction and management strategies. Materials not accepted at the MRW facility are typically referred to hazardous waste collection facilities in Spokane County.

**5.2.6 Regulated Generators**

The federal Resource Conservation and Recovery Act (RCRA) and the Washington State Hazardous Waste Management Act (HWMA, Chapter 70.105 RCW) regulate hazardous waste from the point of generation to final disposal (“cradle to grave”). Generators of regulated quantities of hazardous waste, transporters of hazardous wastes, or owner/operators of TSD (treatment, storage, disposal) facilities must obtain an EPA/state identification number which has associated regulatory requirements including annual reporting describing hazardous waste management activities.

There are a limited number of industrial and commercial businesses in Pend Oreille County that generate hazardous waste in quantities requiring special handling, transport, disposal, and reporting, summarized in the following (Sources: Washington State Department of Ecology Database, 11/2008 and RCRAINFO database queries, 11/2008**)**:

**South Pend Oreille County**

|  |  |  |
| --- | --- | --- |
| **Facility Name** | **Regulatory Permit Numbers** | **Type of Facility** |
| Spring Valley Mfg.  3335 Spring Valley Rd.  Newport | RCRA ID#:  Ecology ID#: 41399753  Emergency & Hazardous Chemical Inventory Report | Boat Building and Repairing |
| WSDOT  806 W. Spokane Hwy SR 2  Newport | RCRA ID#:  Ecology ID#: 84852532  Emergency & Hazardous Chemical Inventory Report | Transportation |
| C & D Zodiac  501 N. Newport Ave.  Newport | RCRA ID#: WAH000011197  Large Generator  Ecology ID#: 29232489  Air Quality Permit, Hazardous Waste Generator | Aircraft Parts and Equipment |
| Unocal Bulk Plant 0528  1st and Pine SW Cor.  Newport | RCRA ID#: WAD988495735  Ecology ID#: 17342596  Emergency & Hazardous Chemical Inventory Report | Petroleum Bulk Station and Terminal |

**Central Pend Oreille County**

|  |  |  |
| --- | --- | --- |
| **Facility Name** | **Regulatory Permit Numbers** | **Type of Facility** |
| Ponderay Newsprint Company  422767 Hwy 20  Usk | RCRA ID#: WAD982657975  Conditionally Exempt Small Generator, Used Oil Program  92628392 –Air Quality Permit, Hazardous Waste Generator, Emergency & Hazardous Chemical Inventory Report, Toxics Release Inventory, Water Quality Permit | Newsprint Mill |
| USAF – Fairchild AFB – Cusick  Sec 27, T34N, R43E  3962 Tacoma Creek Rd.  Cusick | RCRA ID#: WA4570000162  Ecology ID#: 3347859  Emergency & Hazardous Chemical Inventory Report, Toxics - UST | Military Training Facility |
| Vaagen (Ponderay Valley Fibre)  103 – 6th St.  Usk | RCRA ID#: WAD988524088  Conditionally Exempt Small Generator  Ecology ID#: | Wood Product Manufacturing |
| S&S Coatings at Northwest Steel Fab., Inc.  418643 State Hwy 20  Cusick | RCRA ID#: WAR000012419  Ecology ID#: | Metal Coating, Engraving, and Allied services to Manufacturers |

**North Pend Oreille County**

|  |  |  |
| --- | --- | --- |
| **Facility Name** | **Regulatory Permit Numbers** | **Type of Facility** |
| WSDOT – Ione  SR31 MP 4.23  Ione | RCRA ID#:  Ecology ID#: 89496758  Emergency & Hazardous Chemical Inventory Report | Transportation |
| Box Canyon Dam  7492 Hwy 31  Ione | RCRA ID#: WAD988496501  Conditionally Exempt Small Generator  Ecology ID#: 24564629  Hazardous Waste Generator, Toxics - UST | Hydroelectric Power Generation - Dam |
| BPA Metaline Radio Site  Metaline Falls | Ecology ID#: 82694682  Emergency & Hazardous Chemical Inventory Report | Government Facility |

**North Pend Oreille County (cont’d)**

|  |  |  |
| --- | --- | --- |
| **Facility Name** | **Regulatory Permit Numbers** | **Type of Facility** |
| Seattle City Light – Boundary Dam Hydroelectric  219 Boundary Dam Rd.  Metaline Falls | RCRA ID#: WAD988511135  Conditionally Exempt Small Generator  Ecology ID#: 1745757  Emergency & Hazardous Chemical Inventory Report  Ecology ID#: 12977115  Hazardous Waste Generator, Toxics – UST | Hydroelectric Power Generation - Dam |
| Pend Oreille Mine  1382 Pend Oreille Mine Rd.  Metaline Falls | RCRA ID#: WA0000897645  Large Generator  Ecology ID#: 15428546  Toxics (enforcement, cleanup site), Water Quality Permits, Hazardous Waste Generator | Lead Ore and Zinc Ore Mining |
| Lehigh Portland Cement Co.  Metaline Falls | RCRA ID#: WAR000004598  Ecology ID#: 58794555  Hazardous Waste Generator, Toxics cleanup site  Ecology ID#: 16536919  Toxics – UST | Cement Manufacturing |
| LaFarge North America, Inc.  210 East 3rd Ave.  Metaline Falls | RCRA ID#: WAD009063116  Ecology ID#: | Cement Manufacturing |
| Pend Oreille Valley Railroad I  Metaline Falls | RCRA ID#: WAD099038887  Ecology ID#: | Line-Haul Railroad |
| Pintlar Corp. - Pend Oreille Mine  S10,11, 14, 15, T39N, R43E  Metaline Falls | RCRA ID#: WAD980738587  Ecology ID#: | Lead Ore and Zinc Ore Mining |
| RFI West Side Yellowhead Mine  T39N, R43E, S16  Metaline Falls | RCRA ID#: WAD988479382  Ecology ID#: | Lead Ore and Zinc Ore Mining |
| Robinson Excavating & Trucking  301 Lehigh Circle  Metaline Falls | RCRA ID#: WAH000014860  Ecology ID#: | Foundation, Structure, and Building Exterior Contractor |

**5.3 KEY ISSUES**

The primary focus of MRW management is toxicity reduction of disposed wastes, achieved through the following areas of emphasis:

* Household and public education.
* Household hazardous waste collection.
* Business technical assistance.
* Business collection assistance.
* Enforcement.

**5.4 MODERATE RISK WASTE ALTERNATIVES**

|  |  |  |
| --- | --- | --- |
| **Public Education** | Expand public education programs to reduce the generation of MRW and alternative products.  Provide education on the risks associated with mercury in the waste stream such as disposal of thermometers and light ballasts. | 1. Provide MRW generation reduction information on the County Website. 2. Provide printed materials (MRW reduction and alternative products) to be available at the transfer station, drop box sites, and Public Works building. 3. Continue with the “free table” at the South County (Deer Valley) household hazardous waste facility to reuse appropriate products as alternatives to disposal. 4. Access Washington Toxics Coalition’s Home Safe Home Program website for additional information on alternatives to hazardous household products. 5. Work with franchise haulers to screen solid waste for evidence of MRW. 6. Provide a collection location at the Deer Valley Household Hazardous Waste Facility for mercury waste products. 7. Provide information on the risks of mercury in the waste stream on the County Website. 8. Provide printed materials, or a sign/poster, on the risks of mercury in the waste stream to be available at the transfer station, drop box sites, and Public Works building. |

|  |  |  |
| --- | --- | --- |
| **Household Hazardous Waste Collection** | Maintain collection system for moderate risk waste. | 1. Maintain collection of household hazardous waste at the South County (Deer Valley) transfer station and Central and North County drop box sites. 2. In coordination with the communities, school districts, and medical facilities, evaluate needs for expansion of collection sites and mobile collection. 3. Continue to evaluate HHW facility operations for ways to increase efficiency and revenue, while decreasing expenses. |
| **Business technical and collection assistance** | Reuse of lubricating oils.  Provide business collection assistance for MRW.  Enforcement efforts. | 1. Maintain collection and processing of used oil within the County, and continue with existing reuse program 2. Promote reuse of re-refined lubricating oils within the County. 3. Provide technical assistance to businesses and agencies related to waste reduction, collection, and disposal of MRW and hazardous waste. 4. Continue with public education and collection strategies. 5. Enhance load inspection capabilities by franchise haulers and transfer station and drop box site attendants. |

5.5 RECOMMENDATIONS

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 5.4 and recommended the following to Pend Oreille County for further action and implementation:

**5.5.1 Recommendations for Public Education:**

* **Alternative 1**: Provide MRW generation reduction information on the County Website.
* **Alternative 2**: Provide printed materials (MRW reduction and alternative products) to be available at the transfer station, drop box sites, and Public Works building.
* **Alternative 3**: Continue with the “free table” at the South County (Deer Valley) household hazardous waste facility to reuse appropriate products as alternatives to disposal.
* **Alternative 4**: Access Washington Toxics Coalition’s Home Safe Home Program website for additional information on alternatives to hazardous household products.
* **Alternative 5**: Work with franchise haulers to screen solid waste for evidence of MRW.
* **Alternative 6**: Provide a collection location at the Deer Valley Household Hazardous Waste Facility for mercury waste products.
* **Alternative 7**: Provide information on the risks of mercury in the waste stream on the County Website.
* **Alternative 8**: Provide printed materials, or a sign/poster, on the risks of mercury in the waste stream to be available at the transfer station, drop box sites, and Public Works building.

**5.5.2 Recommendations for Improvements in Household Hazardous Waste Collection:**

* **Alternative 1**: Maintain collection of household hazardous waste at the South County (Deer Valley) transfer station and Central and North County drop box sites.
* **Alternative 3**: Continue to evaluate HHW facility operations for ways to increase efficiency and revenue, while decreasing expenses.

**5.5.3 Recommendations for Improvements in Business Technical and Collection Assistance:**

* **Alternative 1:** Maintain collection and processing of used oil within the County, and continue with existing reuse program.
* **Alternative 3:** Provide technical assistance to businesses and agencies related to waste reduction, collection, and disposal of MRW and hazardous waste.
* **Alternative 5:** Enhance load inspection capabilities by franchise haulers and transfer station and drop box site attendants.

# Pend Oreille County

# Solid Waste Management Waste Plan Update

# Section 6.0

**SPECIAL WASTES**

**6.1 INTRODUCTION**

Special wastes are a category of generated waste materials that, in accordance with WAC 173-303-073[[12]](#footnote-12), “*pose a relatively low hazard to human health and the environment...and can be safely managed with a level of protection that is intermediate between dangerous and nondangerous solid wastes”.* Special wastes are conditionally excluded from dangerous waste requirements, but require specific management strategies that are typically outside municipal solid waste (MSW) collection, processing, transport and disposal. In Pend Oreille County, identified special wastes, and associated management strategies include the following:

**6.2 EXISTING CONDITIONS**

**6.2.1 Biosolids**

Biosolids are sewage sludge, generated from municipal wastewater treatment plant process (not industrial sludge), and septage (septic tank sludge) that can be beneficially recycled and meets all requirements under chapter 70.95J RCW.[[13]](#footnote-13) Currently, septic tank sludge is transported to municipal wastewater treatment plants for disposal. Wastewater treatment plant sewage sludge is land applied by permit.

**6.2.2 Biomedical Wastes**

Biohazard wastes generated from medical facilities are collected at the clinics and hospitals and managed through a private medical waste contractor. The community medical facilities also accept “sharps” dropped off by residents and provide free empty containers to any member of the community to use for proper sharps disposal. Animal carcasses are not handled by the County, but are included in Disaster Debris Management Planning.

**6.2.3 Asbestos**

Asbestos residuals from demolition activities are not handled through the County facilities. They are managed by the generator, and the nearest disposal location is in Spokane County (refer to **Section 4.0**).

**6.2.4 Petroleum Contaminated Soil (PCS) and Sludge**

The County does not handle petroleum contaminated soil or sludge from oil/water separators. These materials are managed by the generator and the nearest disposal location is in Spokane County (refer to **Section 4.0**).

**6.2.5 Tires**

The County accepts limited quantities of tires at the transfer station and drop box sites for a fee (refer to **Section 3.0**). Large stockpiles of tires are managed by the generator.

**6.2.6 Auto Hulks and Parts**

In the past, the County sponsored annual collection events, but the service is now provided on a more intermittent basis. Also, for a period of time, an outside contractor provided County-wide auto hulk removal, and the County provided space to store auto hulks and parts on County property near the Deer Valley Transfer Station. The contractor consolidated the collected auto hulks and parts until an economically viable volume was reached to mobilize crushing and transport equipment. This practice has been discontinued, and the contractor is in the process of removing all materials from County property.

**6.2.7 Restaurant Generated Oil and Grease**

Oil and grease generated from local restaurants is currently not managed by the County.

**6.3 ALTERNATIVES**

1. Continue to provide public information on management strategies and locations that handle special wastes.
2. Continue to collect tires at the transfer stations.
3. Continue to have commercial haulers audit the waste stream contents of participating business and residential users of collection services.
4. Evaluate alternative collection strategies and staging locations for auto hulks.
5. Evaluate whether alternative management strategies are required for cooking oil and grease wastes.
6. Periodically review and amend County acceptance criteria and management protocols, related to Special Wastes, for users of the transfer station and drop box sites.

**6.4 RECOMMENDATIONS**

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 6.3 and recommended the following alternatives to Pend Oreille County for further action and implementation:

* + - **Alternative 1**: Continue to provide public information on management strategies and locations that handle special wastes.
    - **Alternative 2**: Continue to collect tires at the transfer stations.
    - **Alternative 3**: Continue to have commercial haulers audit the waste stream contents of participating business and residential users of collection services.
    - **Alternative 4**: Evaluate alternative collection strategies and staging locations for auto hulks.
    - **Alternative 5**: Evaluate whether alternative management strategies are required for cooking oil and grease wastes.
    - **Alternative 6**: Periodically review and amend County acceptance criteria and management protocols, related to Special Wastes, for users of the transfer station and drop box sites.

# Pend Oreille County

# Solid Waste Management Plan Update

# Section 7.0

# BUDGET

**7.1 INTRODUCTION**

Budget goals are to attain an economically sustainable program for solid waste management and meet all applicable regulatory requirements. Approximately 88% of the solid waste revenues come from tipping fees, with the remaining 12% generated from grants (8%), recycling revenue (2-3%) and solid waste taxes. Approximately 80% of the expenditures go towards contracted disposal, long haul transport and operations, with the remaining balance (20%) spent on county operations and taxes. Table 7-1 provides a summary of the solid waste budget for 2005 through 2008.

##### Table 7-1: Solid Waste Budget (Actuals)

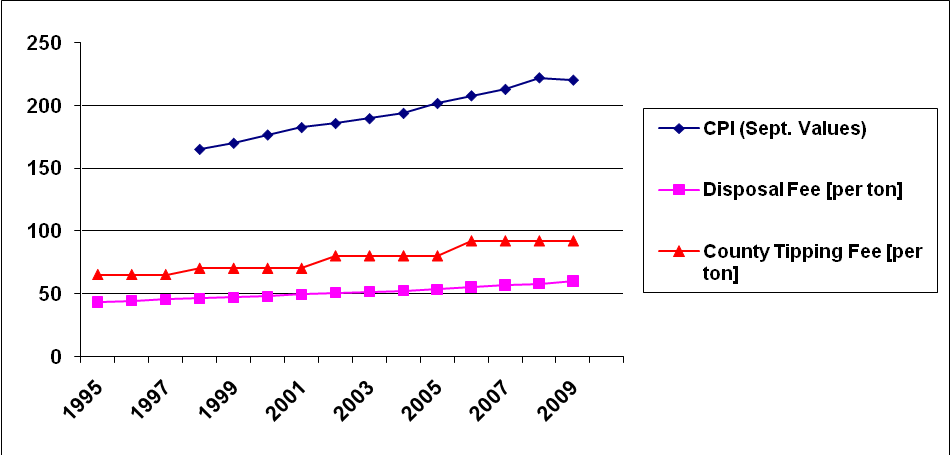
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2005** | **2006** | **2007** | **2008** |
| **REVENUE** |  |  |  |  |
| Disposal (Tipping) Fees | $717,279 | $771,694 | $836,651 | $795,516 |
| Recycling Revenue | $18,004 | $19,113 | $26,822 | $42,066 |
| Solid Waste Grants | $79,388 | $77,522 | $59,871 | $81,589 |
| Solid Waste Taxes | $12,708 | $12,113 | $13,662 | $12,300 |
| Other | $950 | $548 | $894 | $867 |
| Interfund Charges | ---- | ---- | ---- | $2,282 |
| Recycle Building Grant | ---- | ---- | ---- | $105,328 |
| **TOTALS** | **$828,328** | **$880,992** | **$937,901** | **$1,039,948** |
|  |  |  |  |  |
| EXPENDITURES |  |  |  |  |
| Disposal, Long Haul & Operations | $619,614 | $759,556 | $727,322 | $685,717 |
| County Operations (P/R, supplies, other services) | $95,145 | $131,160 | $141,452 | $138,692 |
| Refuse Tax | $9,518 | $12,805 | $15,749 | $12,359 |
| B&O Tax | $9,626 | $11,778 | $9,282 | $11,918 |
| Equity Transfer (Loan Payments) | $25,000 | $25,000 | ---- | ---- |
| Interfund Payments | $8,976 | $7,145 | ---- | $13,596 |
| Recycle Building and Equipment | ---- | ---- | ---- | $217,871 |
| TOTALS | **$767,879** | **$947,444** | **$893,805** | **$1,080,153** |
| **NET** | **$60,450** | **($66,452)** | **$44,095** | **($40,205)** |

The contracted disposal, transport and operations expenditures increase annually with the Consumer Price Index (CPI), while the revenue increases with tipping fee changes that are dependent upon County Commissioner approval. Tipping fee increases occur on an approximate 3- to 4-year cycle, with the history provided in Table 7-2 and Figure 7-1 for years 1995 through 2009.

**Table 7-2: Regional Disposal and County Fees**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Consumer Price Index**  **(CUUR0400SA0, CUUS0400SA0)**  **September values** | **Regional**  **Disposal Fee**  **[per ton]**  **(Expenditure)** | **County**  **Tipping Fee**  **[per ton]**  **(Revenue)** |
| **1995** |  | $43.33 | $65.00 |
| **1996** |  | $44.19 | $65.00 |
| **1997** |  | $45.28 | $65.00 |
| **1998** | 165.1 | $46.13 | $70.00 |
| **1999** | 170.0 | $46.86 | $70.00 |
| **2000** | 176.6 | $47.71 | $70.00 |
| **2001** | 182.5 | $49.29 | $70.00 |
| **2002** | 185.7 | $50.69 | $80.00 |
| **2003** | 189.6 | $51.45 | $80.00 |
| **2004** | 193.8 | $52.37 | $80.00 |
| **2005** | 201.7 | $53.36 | $80.00 |
| **2006** | 207.8 | $55.21 | $92.00 |
| **2007** | 212.92 | $56.63 | $92.00 |
| **2008** | 222.132 | $57.82 | $92.00 |
| **2009** | 220.294 | $59.95 | $92.00 |

**Figure 7-1**



The Consumer Price Index (CPI) measures the average changes in prices over time of goods and services purchased for personal consumption by urban U.S. households, and consists of the generalized items listed below for urban west consumers:

* FOOD AND BEVERAGES (breakfast cereal, milk, coffee, chicken, wine, full service meals, snacks)
* HOUSING (rent of primary residence, owners' equivalent rent, fuel oil, bedroom furniture)
* APPAREL (men's shirts and sweaters, women's dresses, jewelry)
* TRANSPORTATION (new vehicles, airline fares, gasoline, motor vehicle insurance)
* MEDICAL CARE (prescription drugs and medical supplies, physicians' services, eyeglasses and eye care, hospital services)
* RECREATION (televisions, toys, pets and pet products, sports equipment, admissions);
* EDUCATION AND COMMUNICATION (college tuition, postage, telephone services, computer software and accessories);
* OTHER GOODS AND SERVICES (tobacco and smoking products, haircuts and other personal services, funeral expenses).

The CPI is used to adjust the annual solid waste disposal and operations contract and is not representative of actual cost increases for a solid waste disposal operator. Landfill space is primarily a sunk cost and fixed component, with the operations and transportation components being variable and increasing over time. The urban west CPI is used because there is no rural west or rural CPIs. There are component CPIs that can be segregated, such as transportation, but the multi-year averages are similar and the contract would be subject to greater upward and downward spikes on an annual basis.

The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services and tracks the average change in prices over time of domestically produced and consumed commodities. The index is comprised of prices for both consumer goods and capital equipment, but excludes prices for most services (does include solid waste collection).

Table 7-3 summarizes current year (2009) tipping fees for municipal solid waste and moderate risk waste (household hazardous waste).

|  |  |
| --- | --- |
| **Table 7-3: Current (2009) Solid Waste Disposal Rates** | |
| **North and South County Transfer Stations** | |
| Solid Waste (per ton) | $92.00 + Tax |
| Minimum | $4.60 + Tax |
| **Central County Transfer Station** | |
| Solid Waste (per cubic yard) | $15.00 + Tax |
| Minimum | $4.60 + Tax |
| **All Transfer Stations** | |
| Scrap Metal: clean and separated | Free |
| Newspaper: clean and separated | Free |
| Cardboard: clean and separated | Free |
| Metal Cans: clean and separated | Free |
| Container Glass: clean | Free |
| Freon Charge per Appliance | $20.00 + Tax |
| Tires: 3 or more (each) | $20.00 + Tax |
| **Household Hazardous Waste** | |
| 5 gallons or less | Free |
| 6 gallons or more (per gallon) | $20.00 per gallon |
| **NOTES**  1. South County Scale weighs in 20-pound increments.  2. North County Scale weighs in 10-pound increments.  3. Usk fees based on cubic yard measurements.  4. Refuse tax is currently 3.6%. | |

Table 7-4 provides a budget forecast for years 2009 through 2015, projecting a required tipping fee increase in 2010. Tipping fees have historically increased about every 4 - 5 years by 10%-15% and are driven by disposal fee increases (about 3% annually), increased solid waste generation volumes, and uncertainties associated with recycling revenues/expenditures and grant funding availability.

##### Table 7-4: Pend Oreille County Solid Waste Budget Forecast (2009-2015)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2008**  **Actuals** | **2009**  **Estimates** | | **2010**  **Estimates** | | **2011**  **Estimates** | | **2012**  **Estimates** | | **2013**  **Estimates** | **2014**  **Estimates** | | **2015**  **Estimates** |
| Estimated Refuse Weight [Tons] | **8,124** | 8,334 | | 8,549 | | 8,769 | | 8,995 | | 9,227 | 9,466 | | 9,710 |
| Disposal and Long Haul Rate/Ton |  | $84.75 | | $85.10 | | $85.45 | | $85.80 | | $86.15 | $86.50 | | $86.86 |
| Local Operational Cost Rate/Ton |  | $20.14 | | $20.22 | | $20.31 | | $20.39 | | $20.47 | $20.56 | | $20.64 |
| Local Tipping Cost Estimate/Ton |  | $104.89 | | $105.32 | | $105.75 | | $106.19 | | $106.62 | $107.06 | | $107.50 |
| **Projected Tipping Fee [Per Ton]** | **$92** | **$92** | | **$105** | | **$105** | | **$105** | | **$105** | **$105** | | **$105** |
|  | | | | | | | | | | | | |  |
| **REVENUE FORECAST** | | | | | | | | | | | | | |
| Disposal Fees |  | $766,691 | $897,604 | | $920,762 | | $944,517 | | $968,886 | | $933,883 | $1,019,525 | |
| Recycling Revenue | **$42,066** | $44,169 | $46,378 | | $48,697 | | $51,131 | | $53,688 | | $56,372 | $59,191 | |
| Solid Waste Grants | **$75,000** | $75,000 | $75,000 | | $75,000 | | $75,000 | | $75,000 | | $75,000 | $75,000 | |
| Taxes Collected |  | $12,650 | $14,810 | | $15,193 | | $15,585 | | $15,987 | | $16,399 | $16,822 | |
| **Total Expected Revenue** |  | **$898,511** | **$1,033,792** | | **$1,059,651** | | **$1,086,233** | | **$1,113,561** | | **$1,141,655** | **$1,170,539** | |
| **Excluding SW Grants** |  | **$823,511** | **$958,792** | | **$984,651** | | **$1,011,233** | | **$1,038,561** | | **$1,066,655** | **$1,095,539** | |
|  | | | | | | | | | | | |  | |
| **EXPENDITURES FORECAST** | | | | | | | | | | | | | |
| Disposal and Long Haul Costs | **$685,717** | $706,289 | | $727,477 | | $749,301 | | $771,781 | | $794,934 | $818,782 | | $843,345 |
| Local Operations Costs | **$162,969** | $167,858 | | $172,894 | | $178,081 | | $183,423 | | $188,926 | $194,594 | | $200,431 |
| **Total Expected Expenditures** |  | **$874,147** | | **$900,371** | | **$927,382** | | **$955,204** | | **$983,860** | **$1,013,375** | | **$1,043,777** |
|  | | | | | | | | | | | | | |
| **NET TOTALS** |  | **$24,364** | | **$133,421** | | **$132,269** | | **$131,030** | | **$129,701** | **$128,279** | | **$126,762** |
| **EXCLUDING SOLID WASTE GRANTS** |  | **($50,636)** | | **$58,421** | | **$57,269** | | **$56,030** | | **$54,701** | **$53,279** | | **$51,762** |

**Assumptions:**

1. Weight based on 2008 actual Regional Disposal weight, adjusted for future population growth (assuming a 2.58% annual increase).
2. Disposal, long haul, and operating cost estimates are based on 2008 actual total cost, with a 3% annual increase.
3. Local operation cost estimates are based on 2008 actual total (excluding recycling building/equipment capital costs), with a 3% annual increase.
4. POC 2009 tipping fee increasing to $105 in 2010.
5. Disposal revenue is total refuse weight times tipping fee rate.
6. Recycling revenue estimates are based on 2008 actual total, with a 5% annual increase.
7. Grant revenue average (2005 – 2008), with no projected increases (2008 grant for recycling building and equipment excluded).
8. Taxes collected are 1.65% of expected disposal fees.
9. Interfund payments and charges are excluded.

**7.2 KEY ISSUES**

* The current transfer facilities and landfill closures were constructed with revenue from County timber sales, with this source of funding no longer available. More recent improvements have been made with grant dollars and it is expected that grant funding or some other mechanism of generating revenue will be needed for future capital improvements. Additional budget stability issues include nonpayment or slow payment of account receivables, dependence upon shifting grant sources and amounts, and future unfunded regulatory requirements and enforcement issues.
* It is possible with increased revenue from recycling and reduction of long haul and disposal expenditures through the use of diversion (recycling, CDL, and inert waste) that tipping fee increases may occur at a slower pace and capital improvements may be financed with solid waste revenues.
* Currently, the CPI is used to adjust the annual solid waste disposal and operations contract and is not representative of actual cost increases for a solid waste disposal operator. Landfill space is primarily a sunk cost and fixed component, with the operations and transportation components being variable and increasing over time. The urban west CPI is used because there is no rural west or rural CPIs. There are component CPIs that can be segregated, such as transportation, but the multi-year averages are similar and the contract would be subject to greater upward and downward spikes on an annual basis.

Alternatively, the Producer Price Index (PPI) tracks the average change in prices over time of domestically produced and consumed commodities. The index is comprised of prices for both consumer goods and capital equipment, but excludes prices for services. However, the PPI is also subject to spikes such as the current 13% increase from 2007-2008 and the PPI does include non-producing service industries such as solid waste operations and landfills.

* 1. **ALTERNATIVES**

1. Institute an ordinance for flow control (an example is attached).
2. Evaluate program fees for recycling that may be used to assist with developing a financially sustainable recycling program.
3. Consider changing the operations contract adjustment so that the operating and transportation portions of the contract increase with CPI, but the disposal portion remains static for the term of the current contract.
   1. RECOMMENDATIONS

The Solid Waste Advisory Committee (SWAC) reviewed the alternatives summarized in Section 7.3 and recommended the following alternatives to Pend Oreille County for further action and implementation:

* **Alternative 2**: Evaluate program fees for recycling that may be used to assist with developing a financially sustainable recycling program.
* **Alternative 3**: Consider changing the operations contract adjustment so that the operating and transportation portions of the contract increase with CPI, but the disposal portion remains static for the term of the current contract.

# Pend Oreille County

# Solid Waste Management Plan Update

# Section 8.0

# SUMMARY OF RECOMMENDATIONS AND

# IMPLEMENTATION SCHEDULE

**8.1 PREVIOUS RECOMMENDATIONS**

The 2002 Solid Waste Plan Update made general recommendations for facility, equipment, program, and budget modifications. Many of those recommendations were implemented while others are included in the recommendations for this plan. Recommendations not implemented and advanced to this plan cycle should be considered with portions or parts modified and/or deferred to a later planning cycle.

**General Recommendations:**

* Provide public information and education with signs, brochures, classes, events and contact.
* Consider facility safety with signage and dust control.
* Increase public disposal fees to cover operating costs.
* Establish an annual reserve (carried over each year) to insulate the program from annual deficit funding via the county current expense fund.
* Consider annual tipping fees increases based upon the Consumer Price Index (CPI).

**Facility and Equipment Recommendations:**

* South County Transfer Station repairs and improvements as part of ongoing maintenance and operations.
* North County Drop Box Site project increase in collection box storage capacity from five to seven stations as maintenance improvements.
* Central County Drop Box Site opening day changed from Thursdays to Wednesdays.
* Central County Drop Box Site expansion and improvements.

**Equipment Recommendations:**

* Purchase Compactor Baler
* Start Metal Stockpiles at South County Transfer
* Purchase three reinforced metal recycling boxes

**Program Recommendations:**

* Hold collection events for special waste items.
* Produce informational brochures.
* Do public and school presentations on MSW, MRW, recycling and waste reduction.
* Start recycling hotline, radio spots, brochures, booths at fairs, school education, world wide web home pages, business waste reduction audits, waste reduction and recycling awards, a master composter program, a compost demonstration site, mulch mower promotion, and rate incentives.
* Purchase recycling and waste reduction equipment developing improved recycling.

**Budget Recommendations and Planning:**

* Implement tipping fee increase.
* Continue to apply for CPG Grants.
* Amend plan to match operation and grant needs.

### 8.2 CURRENT RECOMMENDATIONS and IMPLEMENTATION SCHEDULE

Refer to Table 8-1 attached, pages i - ix.

1. Reference: U.S. Census Bureau – American FactFinder: http://factfinder.census.gov/ [↑](#footnote-ref-1)
2. Median is a statistical term described as the number separating the higher half of a sample set or data population from the lower half, and is found by arranging all the data points from lowest value to highest value (ranking) and picking the middle value. [↑](#footnote-ref-2)
3. Reference: Office of Financial Management – ***Population and Components of Population Change by County: April 1, 2000 to April 1, 2008*** - http://www.ofm.wa.gov/pop/april1/ [↑](#footnote-ref-3)
4. Source: Office of Financial Management. [www.ofm.wa.gov](http://www.ofm.wa.gov) Population figures for 1990 and 2000 – US Census Current 2007 population – Office of Financial Management, June 2007 2010-2025 Office of Financial Management Growth Management Act Population projections November 2007. [↑](#footnote-ref-4)
5. Reference: EPA Waste Wise website at: [www.epa.gov/wastewise](http://www.epa.gov/wastewise) - waste reduction resource information. [↑](#footnote-ref-5)
6. The State’s recycling rate is based on municipal solid waste as defined by the Environmental Protection Agency (EPA) and includes durable goods, nondurable goods, containers and packaging, food wastes, and yard trimmings. It does not include: industrial waste, inert debris, asbestos, biosolids, petroleum contaminated soils or construction, demolition, and land clearing debris (CDL) disposed of at municipal solid waste landfills (Reference: ***Solid Waste in Washington State—Thirteenth Annual Status Report***, Washington State Department of Ecology, December 2004). [↑](#footnote-ref-6)
7. Reference: E-Cycle Washington Local Government Toolkit, Draft-September 8, 2008, Washington State Department of Ecology. **http://www.ecy.wa.gov/programs/swfa/eproductrecycle/.** [↑](#footnote-ref-7)
8. Starting January 1, 2009, manufacturers are required to provide recycling services (at no cost) for unwanted TVs, monitors, desktop computers, and laptop computers to households, small businesses, charities, schools, and small governments. [↑](#footnote-ref-8)
9. Reference - http://www.ecy.wa.gov/programs/swfa/eproductrecycle/docs/StandardPlan.pdf. [↑](#footnote-ref-9)
10. References:

    EPA Product Stewardship website at: [www.epa.gov/epr/](http://www.epa.gov/epr/)

    Washington State Dept. of Ecology Beyond Waste website at: www.ecy.wa.gov/beyondwaste/

    Product Stewardship Institute (PSI) website at www.productstewardship.us [↑](#footnote-ref-10)
11. Small quantity generators (SQG’s) are businesses that generate less than 220 pounds per month or per batch for most hazardous wastes (2.2 pounds of acute or extremely hazardous wastes). [↑](#footnote-ref-11)
12. State of Washington Dangerous Waste Regulations (11/30/2004) – Conditional exclusion of special wastes. [↑](#footnote-ref-12)
13. Chapter 173-351 WAC – Criteria for Municipal Solid Waste Landfills. [↑](#footnote-ref-13)