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INTEGRATED SOLID WASTE MANAGEMENT PLAN
FOR
PARK COUNTY, WYOMING

Prepared by:

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**June 1, 2009
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1.0 INTRODUCTION

1.1 Background

Until 1976, municipal solid waste (MSW) or “garbage” was not regulated by the Wyoming Department of Environmental Quality (DEQ). Throughout the West as towns developed in the early decades of the 20th Century, garbage was disposed of at common “dump” sites, which were often associated with large, wide gullies or river banks. The 1976 regulations were generally focused on eliminating open burning of trash to control air pollution, controlling litter, limiting the presence of scavenging animals that could carry disease, and limiting nuisance factors like flies and odors.

The cost of solid waste management has increased significantly in the past forty years due to a combination of federal and state regulations, increased awareness of environmental impact, and potential environmental liability as it relates to waste disposal facilities. Attention to both short and long term costs of managing solid waste and other waste streams (such as recyclables and hazardous and special waste) has resulted in significant changes in how solid waste is managed and controlled throughout the entire U. S. The distances and low population in Wyoming have always presented challenges to both the logistics and cost of managing solid waste.

1.2 Future Objectives Developed from the ISWMP Process to Date

Specific objectives of this integrated solid waste management plan are:

- 1. Permit the Cody Landfill as a lined facility for accepting municipal solid waste from all of Park County and surrounding areas (regional landfill). The permit application has been submitted to WDEQ. The first review by WDEQ has been received by Park County with responses currently being prepared.**
- 2. Continue to accept municipal solid waste (MSW) and construction and demolition debris (C&D) in unlined cells at the Cody, Powell, Meeteetse, and Clark Landfills until permit expiration, renewal, closure, or completion of lined cell at the Cody landfill. Meeteetse is scheduled to close on June 30, 2010.**
- 3. Consider closure of the Powell Landfill to MSW and continue evaluation of transportation and transfer services for Powell area residents.**
- 4. Continue to provide ancillary services at the Cody, Powell, Meeteetse, and Clark Landfills until permit expiration or renewal. Services include acceptance of:**
 - used oil (which is recycled),**
 - vehicle batteries (which are recycled),**
 - scrap metal and white goods for recycling, and**
 - green waste (e.g., leaves, grass clippings, brush, manure, and tree limbs) for use as cover, composting (with dead animals at Cody and Powell Landfills), or burning of clean wood (at all four landfills as conditions allow under an active smoke management permit issued by the WDEQ).**

5. Maintain compliance with local, state, and federal regulations by solid waste management entities.

6. Implement measures to minimize and prevent illegal dumping. Increased disposal costs may result in increased illegal dumping. Law enforcement, state, federal, regional, county, and other government agencies (such as Park County Commissioners, municipal councils, Wyoming Department of Game and Fish, BLM, and Park County Road and Bridge), and government attorneys must work together to take action when such events are identified. It is critical that representatives from these three groups commit and follow through on efforts to prevent illegal dumping and hold identified offenders responsible.

7. Develop a centralized recycling operation for Park County and surrounding areas.

8. Coordinate efforts by county, municipalities, and private or non-profit recyclers to increase diversion of waste streams and offer recycling services in areas currently with limited opportunities.

9. Continue current solid waste collection services by municipalities and private haulers with efforts to identify increased cost efficiencies.

10. Annually evaluate cost and operational accounting for every entity providing solid waste management services with consideration of multi-year planning and landfill permit time periods considered.

11. Continue current educational and informational programs and expand such programs as funding and staffing requirements allow. A copy of *A Summary of Public Education Programs for Implementation of Integrated Solid Waste Management Plans* prepared by Peak Environmental has been included as Exhibit U.

12. Create a solid waste management advisory council to further the above services.

1.3 Historic Solid Waste Regulatory Dates

Wyoming, like the rest of the United States, has seen changes in attitude and interest as it relates to solid waste management in recent years. "Dumps" are being replaced with "sanitary landfills" and garbage is now referred to as MSW (or other specific terms for other waste streams). The term "engineered" is now being applied to waste management systems with the consideration of lined waste disposal areas, leachate collection/removal systems, final cover systems, material recovery facilities, waste to energy facilities, and regional solid waste transfer stations. These engineered and more tightly regulated facilities are associated with increased costs which have prompted local officials and operators to pursue full cost accounting and alternate financing options rather than relying on funding with county or city general funds.

Following are several dates of regulatory significance as they pertain to solid waste management during the past 40 years.

- 1970 -- The U. S. Environmental Protection Agency was created.
- 1973 – The Wyoming Department of Environmental Quality (WDEQ) was formed.
- 1976 – The federal government passed the *Resource Conservation and Recovery Act (RCRA)*. *Subtitle C* of *RCRA* and its implementing regulations imposed specific federal requirements on materials deemed to be "hazardous," either because of being listed by EPA as hazardous or by reason of having hazardous or toxic characteristics. *Subtitle D* of *RCRA* delegated regulation of nonhazardous solid wastes to the individual states. This act resulted in EPA landfill regulations to prohibit open dumping.
- 1984 – The federal government reauthorized the Resource Conservation and Recovery Act and passed the Hazardous and Solid Waste Amendment which called for more stringent regulation of landfills.
- 1991 – The federal government passed significant amendments to *RCRA* to establish minimum standards for landfills which were designed to make them safer. These regulations were promulgated under 40 CFR 258 and are commonly referred to as Subtitle D. These regulations are the driving force and basis for most current waste disposal regulations for MSW at the state and local level. The regulations include location restriction standards (Subpart B), operating criteria (Subpart C), facility design requirements (Subpart D), groundwater monitoring requirements (Subpart E), closure/post closure requirements (Subpart F), and financial assurance (Subpart G). The compliance date for "large" landfills (receiving more than 100 tons per day) was October 9, 1993. The regulations included extended compliance deadlines for landfills in rural or arid states such as Wyoming. Subtitle D is widely viewed as the catalyst towards regional waste disposal facilities and marked the birth of solid waste transfer stations.
- March 22, 2004 – Revisions to 40 CFR 258 were promulgated to consider Research Development and Demonstration (RDD) Permits to consider and inspire innovative technology (such as alternate final cover system designs or bioreactor landfills).
- Other amendments to 40 CFR 258 (Subtitle D) included provisions for air quality (New Source Performance Standards) as well as revisions to compliance dates for groundwater monitoring systems and smaller landfills accepting less than 20 tons per day of waste.

Subsequent to 1991, the WDEQ (as an EPA "approved state") maintained the option to continue operation of unlined waste disposal trenches. The science at the time predicted that Wyoming's arid climate was not conducive to causing groundwater contamination. This approach was also driven by the fact that most local government landfill operators and officials in Wyoming strongly desired to keep waste disposal costs low.

1.4 Citizens' Advisory Group (CAG)

WDEQ has collected a substantial body of data since 1989 showing that an increasing number of Wyoming's landfills are leaking and contaminating groundwater. Based largely on these findings, the WDEQ, at the recommendation of Governor Dave Freudenthal, convened a Citizens' Advisory Group (CAG) which included landfill operators, municipalities, counties, elected officials, the WDEQ, and other interested citizens and groups to help identify the key problems with solid waste disposal in Wyoming and to identify solutions to these problems. The CAG reported that there were three interrelated solid waste problems facing the state and its communities:

1. The cost to provide safe solid waste disposal services to Wyoming's communities will increase appreciably in future years with many viewing cost increases as unnecessary.
2. Wyoming's recycling rate is lower than it should be.
3. Most Wyoming communities do not have the financial ability to remediate groundwater contamination caused by releases from current and historic unlined landfills. In addition, local financial constraints have significantly delayed the pace of remediation. These delays allow contamination to spread and will significantly increase the ultimate cost of remediation. Wyoming has at least 130 existing landfills. Fifty-two (52) of these are currently operating, and seventy-eight (78) are closed or abandoned. WDEQ's opinion is that groundwater contamination has been identified at twenty-one (21) municipal solid waste landfills. WDEQ has estimated that the total cost of remediation for past and current solid waste landfills in Wyoming could be at least \$180 million dollars.

The CAG proposed legislation with a formula to fund the anticipated very expensive mitigation. The legislation was hurriedly conceived and did not make it out of committee. The CAG was assembled again in 2005 with additional members. Legislation developed in 2005 by the CAG was more thoroughly developed and included proposed funding for studying regional landfills with incentives for landfill permittees and jurisdictions to plan together in an effort to study every reasonable option. The "studies" are termed Integrated Solid Waste Management Plans (ISWMPs). This legislation also included funding to pay for monitoring some groundwater wells at closed and operating facilities. In 2006, the legislation, *W. S. § 35-11-1901 through 35-11-1904*, was approved. A copy of that legislation is included as Exhibit A1. Part of the intent of the legislation is that more comprehensive groundwater monitoring should provide better tools to decide how to manage (and possibly close) landfills in the future. The Integrated Solid Waste Management Plans are also intended to encompass long range planning periods to properly consider and fully explore the costs/benefits of landfill consolidation, closure, alternative waste management methods (such as waste to energy or material recovery), and regional solid waste transfer facilities. The ISWMP planning process should result in solid waste management facilities and services which are more cost effective and in more environmentally conscious regional solid waste disposal facilities.

1.5 Park County Planning Area

Park County, with four permitted landfills, is one study group considering “in county” and “out of county” options. The ISWMP is divided into four phases. The first phase was organizational to identify participants and submit a “letter of intent” to WDEQ to establish funding. The second phase was the economic analysis which was submitted to WDEQ in August of 2008 with supplemental economic data provided in December of 2008. The third phase is a draft Final Plan and the fourth phase is the Final Plan which is to be submitted to the WDEQ on or before July 1, 2009. During the past several years, Park County has been responsible for managing and administering the operation of the waste disposal facilities near Cody, Powell, Clark, and Meeteetse. Although this responsibility has been and continues to be focused primarily on waste disposal, the intent of the ISWMP process is to study all aspects related to waste management within a given planning area including the benefits, costs, and efficiency of collection, transportation and recycling. Therefore the City of Cody, City of Powell, Town of Meeteetse, the Clark and Crandall communities, Powell Valley Recycling, private solid waste handlers, and other interested parties have been involved with the planning process in compiling this ISWMP.

Solid waste programs including collection, transportation, disposal, and recycling are complex programs that are not just local programs or issues. Solid waste programs and/or issues reach across county and state borders. Therefore, the SHWD, WDEQ included incentives such that neighboring landfill entities would plan together.

Park County is pursuing this integrated solid waste management planning effort with consideration of its four landfills (Cody, Powell, Meeteetse, and Clark) and its transfer facility at Crandall. Park County has engaged interested parties both within Park County and the area since the December, 2005, in this planning effort. The following groups have attended public meetings, provided information, and have been involved with the planning effort for the ISWMP for Park County: the City of Cody, the City of Powell, the Town of Meeteetse, the communities of Clark and Crandall, Powell Valley Recycling Task Force, private haulers which serve Park County (including Keele Sanitation and Two Tough Guys Services), the U. S. Department of Agriculture’s Forest Service (USFS), the U. S. Department of the Interior’s Bureau of Land Management (BLM), Wyoming Department of Game and Fish, Clark Resource Council, local press, and other interested citizens.

1.6 ISWMP Requirements

Following is a summary of the ISWMP requirements as noted in a letter written by the WDEQ in 2007 for ISWMP participants. A copy of that letter is included as Exhibit A2. The legislation, on which the letter is based, states that the obligation to provide the ISWMP is that of the landfill permittee, which is Park County for this ISWMP.

“Each ISWM plan should describe the management of solid waste generated within the service area of all facilities/entities covered by the plan. The department encourages participation in a multi-jurisdictional plan, using a regional approach to waste management. Plans must be submitted to the DEQ no later than July 1, 2009. Plans must address a period of not less than twenty (20) years and must contain the following information:

- *A description of the planning area covered by the ISWM plan and the names of all local governmental entities participating in the plan, including a copy of each governing body's resolution adopting the plan. This resolution was previously provided to WDEQ, and it is included as Exhibit A3;*
- *An evaluation of current and projected volumes for all major waste types within the planning area, including a discussion of expected population growth and development patterns;*
- *An evaluation of reasonable alternate solid waste management services, a description of the selected procedures, facilities and systems for solid waste collection, transfer, treatment, storage and information about how the procedures, facilities and systems are to be funded;*
- *A discussion of how the plan shall be implemented, including public participation, public education and information strategies which may include, but are not limited to, citizen advisory committees and public meetings during the preparation, maintenance and implementation of the plan;*
- *Objectives for solid waste management within the jurisdiction, including but not limited to:*
 - ⌚ *Waste diversion, reduction, reuse, recycling or composting;*
 - ⌚ *Waste collection and transportation;*
 - ⌚ *Improving and maintaining waste management systems;*
 - ⌚ *Household hazardous waste management; and*
 - ⌚ *Special waste management.*
- *An economic analysis of the total cost of alternatives and final systems selected by the participating local governmental entities to achieve the plan's objectives, including capital and operating costs;*
- *Elements including:*
 - ⌚ *Strategies to meet each identified objective;*
 - ⌚ *A schedule for implementation; and*
 - ⌚ *Any financial or other incentives offered to residents to encourage participation in local recycling programs.*

• Each plan will need to be submitted for public review prior to submission to the WDEQ. The plan submitted to WDEQ will need to include a statement describing public comments received and how the public comments were addressed. WDEQ will review each plan to determine if the plan is complete. If the plan is not complete, WDEQ will provide a written statement identifying the elements needing to be addressed in the plan. Upon addressing the incomplete elements, the local governmental entity or entities may resubmit the plan for subsequent review by the department.”

This summary is intended to serve as the Final Plan for the ISWMP for Park County, as submitted to WDEQ prior to July 1, 2009, the deadline established by the WDEQ.

The submittal of any part of the ISWMP to WDEQ or the acceptance by WDEQ of any part of the ISWMP does not require any affected party to implement any portion of the ISWMP. In other words, the plan is intended to provide direction for the solid waste service providers, elected officials, and citizens. The plan does not function as law such as a government ordinance, rule, or regulation.

Furthermore, the intent of this ISWMP is to provide objective information to decision-makers in Park County and to thus afford them the tools to take informed action on solid waste management issues.

1.7 ISWMP Consultants

Assisting with the development of this document and project are:

Holm, Blough and Company
1402 Stampede
Cody, Wyoming 82414
307-587-6281

Holm, Blough and Company provides surveying and engineering services for the Park County Landfills. They have calculated volume of air space used at the landfills which is instrumental with this ISWMP and with future landfill permitting and planning. They have assisted with the development of this ISWMP, public meetings, and fielding questions from various members of the public.

Thiel Engineering
9768 Yuba Ranch Way
P. O. Box 1010
Oregon House, California 95962
530-692-9114

Thiel Engineering and their support consultants have developed master plans and addressed siting issues for both the Powell and Cody Landfills. Thiel has also worked with Holm, Blough and Company to design the lined northern lateral expansion of the current Cody Landfill. This design, which includes liner and leachate collection, has been incorporated into the December, 2008, Cody Landfill Permit Renewal Application.

Several pro-formas (cost summaries) have been developed by Thiel Engineering for the planning of Powell and Cody Landfills. Others in this report have been based on Thiel Engineering's format in order to offer ease of comparison.

Thiel has also directed public meetings in Park County for the Cody Landfill Master Plan and provided support for ISWMP public meetings, this document, and with fielding of questions from various members of the public.

Additional assistance has been provided by:

Pilch Engineering
41 East Burkitt
Sheridan, Wyoming 82801
307-672-8750

Tom Pilch, P.E. and P.G., has provided field sampling services for the Park County Landfills since 1989. Pilch Engineering has provided engineering and hydrogeologic services for well placement and construction, well sampling, statistical analyses of sample results, and interpretation of groundwater information for the Park County landfills.

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Peak Environmental is the prime consultant for this ISWMP with the above firms providing support as necessary. The staff of Peak Environmental wishes to thank the various government officials, private firms, non-profit organizations, members of the public, and media who have contributed questions and comments to develop this ISWMP.

Peak Environmental has served as project manager for the Park County Landfills' permit applications since 2002. They have successfully submitted permits for both the Cody Landfill (2004) and the Powell Landfill (2006). The proposed Cody Landfill expansion and expiration of the 2004 permit dictated a new permit application submittal in 2008. The Wyoming Department of Environmental Quality has completed its first review of the application, and responses are being prepared.

Hydrogeologic services for well placement and construction and interpretation of groundwater information for the Park County Landfills have also been provided by Peak environmental since 2002.

1.8 Reference Sources

This report includes a summary of several aspects of Park County's solid waste programs and a summary of the solid waste program alternatives and estimated costs.

Documents from which data was obtained for this summary include:

1. "Summaries of Survey Responses for Landfill and Recycling Information and Solid Waste Collection Information", December 11, 2006
Prepared by Peak Environmental Management, Inc. for Park County Landfills
Dated February 14 – 16, 2007,
2. Income, cost, and material summaries provided by Park County Landfills, City of Cody, City of Powell, Town of Meeteetse, and Powell Valley Recycling,
3. Tax levy information from the Park County Assessor's Office, Mr. Doug (Rip) Brandt, Park County Courthouse 1002 Sheridan Avenue Cody, Wyoming, 82414 307-527-8650, January and August, 2008,
4. Wyoming Department of Revenue, Sales and Use Tax Distribution Reports, Total Distribution by Counties, Cities and Towns, Web site follows:
<http://revenue.state.wy.us/PortalVBVS/DesktopDefault.aspx?tabindex=3&tabid=10>,
and
5. Population estimates and projections for 2000 to 2020 from Jacalyn Neely, Senior Research Specialist, Wyoming Business Council, 214 West 15th Street, Cheyenne, Wyoming, 82002, Jacalyn.Neely@wybusiness.org, 307-777-2806.
Exhibit R includes population estimates for the five areas served by Park County for solid waste disposal. The "rural" population associated with each community was calculated assuming each had the same relative ratio of incorporated or "core" to "rural" areas. Population estimates for Clark and Crandall were estimated by the Park County Landfill staff. Clark and Crandall are not incorporated, but they do have "core" populations. Exhibit S, Population for Wyoming, Counties, Cities, and Towns: 2000 to 2020 was used to develop Exhibit R. The percentage increases in population for years after 2020 were based on the same annual percentage increase from 2000 to 2020, which is the percent increase recommended by the Wyoming Business Council.

1.9 Development Timeline for Solid Waste Management Planning in Park County

Currently the WDEQ has authorized the Park County landfills to operate until the following dates:

- Cody Landfill, April 22, 2009
- Powell Landfill, August 29, 2010
- Meeteetse Landfill, June 30, 2010
- Clark Landfill, December 1, 2010

The Crandall area is served by a 40 cubic yard roll-off container which is transported by a contractor to the Cody Landfill for disposal. The size of the facility precludes the need for a

permit from SHWD, WDEQ. The roll-off container is transported about once per month to the Cody Landfill for disposal.

A renewal application for the Cody Landfill was submitted to WDEQ in December, 2008. WDEQ has completed their first round of review, and responses are being prepared. It is routine for WDEQ to allow landfills to continue to operate without an operating permit letter if:

- 1) the landfill permittee is actively pursuing re-permitting or
- 2) WDEQ's review and approval of a permit application is pending.

A solid waste transfer facility which transfers 20 cubic yards or less of non-liquid solid waste per day and has 40 cubic yards or less total container capacity for solid wastes may be exempted by SHWD, WDEQ from having a permit or requirement to obtain a waste management authorization. Any such facility may be required to provide additional information to WDEQ. Chapter 2, Sanitary Landfill Regulations, SHWD, WDEQ contains a list of potentially exempted facilities which includes a description of limits on volume or numbers of items such as tires, used oil, vehicle batteries, and antifreeze.

A Development Timeline for Park County Landfills is included as Exhibit D. This chart depicts target dates for various landfill tasks including submittal of closure and operating permit applications, funding applications and agreements, and construction tasks for the landfills. The dates for the current efforts for the Cody Landfill 2008 permit renewal application which are listed in the timeline are undergoing revision. Given the many tasks associated with the Park County landfill system and contract negotiations between Park County and solid waste haulers, the timeline is intended as a guide. The timeline will continue to be revised as various solid waste management tasks are pursued and as many associated variables impact the timeline.

It should be noted that any or all of the dates for landfill closure or permit expiration and the other tasks listed on the development timeline are influenced by a variety of factors. Historically, WDEQ has not prevented landfills from operating if the landfill permittee is making a good faith effort to operate under WDEQ rules, regulations, and guidelines and submit appropriate documentation in a timely fashion. The review process for closure and operating permit applications with WDEQ involves a "give and take" process between WDEQ and the permittee. Although specific time periods for review and comment are listed in the WDEQ rules and regulations for the permitting process, the time periods are known to be adjusted based on the workloads of both WDEQ and the permittee.

Landfill operating permits are authorized for a four year period with the date specified by the operating letter sent by WDEQ after the permit application has been approved. Thus about every four years operating permit applications must be submitted. As noted on the development timeline, closure permit applications are to be submitted at least nine months prior to the permit expiration.

The Cody Landfill Master Plan (and the associated 2008 permit renewal application) has been designed so that this landfill has capacity for all of the MSW generated in Park County for more than the next 43 years. Timelines for implementation of the ISWMP include the dates and periods included on the Development Timeline for Park County Landfills as depicted in Exhibit

D. Additional time periods include considerations for implementation of landfill disposal rates in October, 2009 (now proposed with an increase from \$60.00 per ton up to \$90.00 per ton), and additional disposal fee increases in 2015 and 2020. Table 6, Residential Disposal Fee Comparison was prepared to illustrate how an average Park County residential customer's total collection and disposal fees might be affected by the landfill's implementation of increased rates. Given the variety of factors which can influence the solid waste volumes for disposal, recycling, diversion, and reduction, Park County has not elected to project what disposal fees may be after 2020.

2.0 PARK COUNTY SOLID WASTE HISTORY

The intent of this section is to provide a general history and overview of the waste management infrastructure and systems in place within the planning area (Park County). The information has been compiled based on interviews with Park County Landfill staff. Any errors are unintentional.

2.1 Landfills

Park County established a solid waste district (Park County Regional Solid Waste Management District, PCRSWMD) by resolution in February, 1984. Exhibit A4 has a copy of that resolution. Currently, the Park County Commissioners serve as the “directors” of that district with a designated landfill manager. Although the district was legally formed, the administration and operation of the landfills and Crandall transfer has been funded through the general fund rather than through a district therefore the four (4) municipal solid waste landfills and Crandall transfer station continue to be owned and operated by Park County. Within the past few years, Park County Landfills have operated as an enterprise fund with the objective that expenditures for the operation do not exceed income.

There are four active solid waste landfills in the county: Cody Landfill, Powell Landfill, Meeteetse Landfill, and Clark Landfill. Park County also operates a roll-off container in the Crandall area with its municipal solid waste (MSW) being transported to the Cody Landfill. All four landfills are permitted by the SHWD, WDEQ. The Crandall transfer facility does not require permitting due to the small waste stream managed at the facility. All of the landfills serve industrial, commercial, and agricultural clients along with residential customers. Park County has a significant tourist trade, and thus the landfills also serve those needs.

The Cody Landfill encompasses a total of 155 acres which were patented from the U. S. Government (Bureau of Land Management) within the past few years. The City of Cody initially operated a landfill on an area in the southwest portion of the current landfill site. The City of Cody moved from a disposal site near the Shoshone River to this area in 1972. Park County took over operation of the landfill in 1984, but the county did not operate on the site previously used by the City of Cody. The City of Cody had a lease from the BLM to operate the previous landfill site. The BLM lease was transferred to the county in 1995. The county made application to patent the leased lands in 1997. A total of 65 acres were patented in 2005, and 90 acres were patented in 2009 (which includes the previous City of Cody site). The Cody Landfill serves the citizens of the City of Cody and the immediate surrounding area. Upon closure of the Meeteetse Landfill in 2010, the Cody Landfill will be accepting their waste.

The Powell Landfill was originally operated by a private contractor in 1975 with the land being privately owned. The City of Powell purchased the land in 1982 and accepted daily operations. The original facility encompassed 235 acres. Park County purchased the land, operations, and equipment from the City of Powell in 1984. During the late 1980’s a land exchange was approved between the Browns (neighbor to the south of the landfill) and the county. The exchange allowed for an improved facility and operational design with 120 acres then being permitted for the active portion of the landfill. The Powell Landfill has a permit to treat petroleum contaminated soil (PCS) from within a 300 mile radius.

The Meeteetse Landfill operates on 7 acres of land which are leased from the Lazy BV Cattle Company. The current site was chosen from an original 20 acre parcel much of which was deemed unacceptable for development as a waste disposal facility in 1986. Since the Town of Meeteetse expanded the city limits closer to the current landfill site, Park County believes that repermitting at the current location may not be feasible. The current landfill is expected to be at capacity within a few months and much of the waste from the Meeteetse area is already being diverted to the Cody Landfill.

The Clark Landfill operates on 20 of 40 acres which were purchased from the Glacier Park Company in 1986. The original Clark Landfill (prior to 1986) was leased by Park County from the BLM, and that lease is believed to no longer be in place. That original Clark Landfill was operated on less than 5 acres of land located south of the current Clark Landfill site.

All four landfills accept MSW and construction and demolition debris (C&D). Additional services offered (which vary by landfill) include acceptance of:

- used oil (which is recycled),
- vehicle batteries (which are recycled),
- scrap metal and white goods for recycling, and
- green waste (e.g., leaves, grass clippings, brush, manure, and tree limbs) for use as cover, composting (with dead animals at Cody and Powell Landfills), or burning of clean wood (at all four landfills as conditions allow under an active smoke management permit issued by the WDEQ).

Although all of these above items are not recycled, they are separately managed to allow more efficient use of the waste categories. The landfills do not currently charge for receipt of any of these items. The operating costs listed in Exhibit E for the current operations include management of these special waste streams. Both current and proposed landfill operations described in this plan assume that these services will continue to be provided. The costs per ton for proposed landfill operations are costs charged for municipal solid waste (MSW) and construction/demolition debris (C&D) with that income being used to manage the special waste streams. Both the current and future objectives with funding special waste streams in this fashion benefit both the landfill operations and patrons by the following:

Landfill patrons:

- wish to not be charged for these special waste streams,
- prefer the convenience of sorting such waste, and
- support these methods of waste diversion at the landfills.

Landfill operator:

- preserves air space by diverting special waste streams,
- reduces the potential for adverse environmental impact,
- gains income from recycling white goods and scrap metal
(in years when value is sufficient), and
- improves efficiency of several aspects of the landfills' operations.

2.2 Collection

Current solid waste collection providers include the City of Cody for residents within the Cody city limits, the City of Powell for residents within the Powell city limits, the Town of Meeteetse for the residents within the Meeteetse city limits, private haulers or individual generators (residents and commercial interests) for rural residents and businesses. All three municipalities have commercial accounts with fees which vary based on size of collection container and frequency of collection. The City of Cody and Town of Meeteetse collect solid waste for their municipalities. The two major private haulers are Keele Sanitation and Two Tough Guys Services. Although many of those from whom solid waste is collected receive once a week collection, additional collection dates are provided at an additional cost by city, town, and private haulers. The City of Powell, however, offers twice each week solid waste collection as part of their standard fees. As part of the standard fee, the City of Cody also offers twice each week collection for roll-out containers during summer months.

2.3 Recycling

Recyclers in the county include the City of Cody, Powell Valley Recycling (PVR), and Regional Recycling, LLC. Other businesses within Park County also accept a variety of materials for recycling (such as businesses which must accept vehicle batteries for each one sold). Powell Valley Recycling is currently in discussions with the City of Cody and other interested recyclers to expand their operation to serve as a more regional recycling organization.

Exhibit G includes a copy of the agreement which has been signed by the City of Powell, City of Cody, Powell Valley Recycling, and Park County in order to advance efforts for a regional recycling program and managing partners to encompass all of Park County. (The copy in that exhibit does not have all of the signatures, but all entities have signed a copy of that letter.)

2.3.1 Powell Valley Recycling

Powell Valley Recycling Task Force (PVRTF) was formed in 1993 in Powell, Wyoming, by members of the League of Women Voters, the City of Powell Sanitation Department, Park County Landfills, and representatives from the Chamber of Commerce, Boy Scouts, 4-H, the Powell Tribune, the Powell City Council and members of the general public.

PVRTF was renamed recently to Powell Valley Recycling (PVR). PVR's mission at its inception and currently is to conserve natural resources and reduce the flow of solid waste going into our landfills. PVR's commitment is to achieve this while educating the public about the importance of recycling and providing adequate opportunities for recycling materials throughout the Big Horn Basin.

The Park County Fairgrounds was the first location for residents to drop off recyclable materials once each month. Volunteers sorted and loaded a truck. Newspaper, computer paper, and office paper were the first materials collected, and 22 tons were recycled in 1993.

Powell Valley Recycling now accepts newspaper, computer paper, office paper, corrugated cardboard, phone books, magazines, aluminum cans, steel cans, rechargeable batteries, household shredded paper and packing peanuts, glass containers, #1 and #2 plastics. Powell

Valley Recycling pays for aluminum beverage cans. The recycling center accepted 808 tons during fiscal year 2007-2008.

PVR now accepts a wider variety of recyclable materials and has increased its volume by more than 36 times its first year's volume. This illustrates how PVR's economic, staffing, and customer service strengths have grown. PVR is considered one of the premier recycling centers in the state with other centers and consultants looking to PVR for information about how PVR is operated in order to increase the efficiency of other centers in Wyoming.

Powell Valley Recycling operates in a 3,200 square foot leased building from the Boys and Girls Club of Park County. An additional lot of 5,000 square feet has an 1,800 square foot building with both the lot and building serving as cold storage. PVR also owns a 100 feet by 200 feet lot which is not currently in use. For future operations, a building of 12,000 square feet with an additional 10 acres would provide an optimum situation. However, the proposed budget for a centralized recycling operation for Park County and the surrounding areas (included in Exhibit G) considers a 7,000 square foot building with a 3 acre parcel.

Powell Valley Recycling started with volunteers only and now employs one full time manager, 2 full time employees, and 2 part time employees. Volunteers also assist the paid staff as needed. Three times each week, the City of Powell provides assistance for collection of corrugated cardboard throughout the City of Powell by using a garbage truck, and the City of Powell also assists with loading of materials for shipment to markets.

PVR in cooperation with the City of Powell's Sanitation Department provides recycling services in the City of Powell to both residents and businesses of Powell and to surrounding areas. The center is located at 535 North Hamilton Street, a leased building, with a cold storage area at 433 North Ingalls owned by Powell Valley Recycling. Hours open to the public are Monday through Friday from 10:00 a.m. to 5:30 p.m. and Saturday 10:00 a.m. to 3:00 p.m.

Services provided include:

- Residential and commercial drop-off of acceptable materials.
- Materials accepted include:
 - Newspaper, magazines, office and computer paper, catalogs, phone books, corrugated cardboard, steel cans, rechargeable batteries, Tyvek© envelopes, bubble wrap, packing peanuts, shredded paper, glass container, HDPE #2 colored and natural and PETE #1 plastics and aluminum cans (for which patrons receive cash).
- Used eyeglasses, cell phones, and ink cartridges are collected for different organizations in town as a service to these organizations. This offers a central drop off site for several organizations.
- Materials received from outside the city limits compose about 15% of the total recyclables handled by PVR.

- Direct collection of commercially generated cardboard within the City of Powell and close outlying areas is provided 3 times per week with 81 stops of which 67 have metal containers owned by the City of Powell, Park County, and Powell Valley Recycling. Collection services for cardboard are provided at a minimal cost to the businesses.
- The program currently recovers approximately 8% of the total waste stream. This calculation is based on figures in section 7.0 which lists tons received and tons charged and Table 3 and section 3.0 which segregate MSW from C&D. The Powell Landfill receives about 7,800 tons of municipal solid waste per year. During fiscal year 2008, PVR accepted 808 tons of material. About 15% of that is from communities outside of Park County.
 - **808 tons recycled X 15% = 121 tons not from Powell residents**
 - **808 tons – 121 tons = 687 tons recycled from Powell residents**
 - **7,800 tons MSW + 687 tons recycled = 8,487 total tons MSW**
 - **687 tons recycled ÷ 8,487 total tons MSW = 8%**
 - **Construction and demolition debris has not been included in the calculation of this recycling rate.**
- It is estimated that approximately 48% of the recovered materials come from the commercial businesses in the city, as a result of their participation in the cardboard recovery program. About 52% of the remaining recovered materials come primarily from the drop off program.
- Work with the court system in giving community service workers an opportunity to meet their obligations.
- Involved with work experience program for the developmentally disabled in the Powell school system.

With the anticipated MSW diversion from the Powell Landfill in 2010, Park County is in urgent need of a larger facility to be able to handle more materials and add new materials as recycling markets continue to develop. PVR owns two lots in the city with the intent of building a larger facility. Consideration has also been given to relocating to a different site with more acreage. The integrated solid waste management planning being conducted by Park County has illustrated that it is even more imperative that PVR relocate and build (or remodel) as soon as possible.

The growth of PVR in terms of paid staff and staff hours, size of utilized facilities, volume of materials, and services provided indicates the commitment of the PVR board and staff, the City of Powell, and area citizens and businesses. Their expanded operation also illustrates the interest of citizens and businesses to continue recycling throughout a long history and changes in local economics.

The distances to markets for Wyoming recyclables and low population present challenges to recycling centers throughout the state. The offer of convenience for recycling, unflagging support, and public education will continue to make PVR a leader in the recycling community as well as an integral part of the overall integrated solid waste management strategy for the planning area.

2.3.2 City of Cody Recycling Program

Cody's recycling program was started in 1993. Before moving to its current location at 602 15th Street in Cody, the program operated with 2 cans (enclosed trailers) located in the Bob Moore Memorial Parking Lot. At that time materials accepted were newspaper, office paper, and computer paper. Aluminum cans were accepted at the recycling location, but income derived from aluminum cans was not returned to this recycling program. Aluminum cans were collected from the program by Western Recycling and a Powell citizen.

In 1994, one third of the building now used as the recycling center was obtained. In 1995, the entire building was devoted to the recycling center. The center was initially opened on Tuesdays and Saturdays. In 2001, the center was open Tuesday through Saturday from 7:30 a.m. to 3:30 p.m. In the spring of 2004, the center's hours changed to Monday through Friday from 7:30 a.m. to 3:30 p.m.

Areas on the east side of the building were fenced to allow secure areas for drop-off of recyclables when the center was not open. In 2001 a collection trailer was placed in the Wal-Mart parking lot. In 2004, wire containers were designed, built, and placed next to several dumpsters in commercial areas of the city. Those wire containers have been replaced by reconditioned dumpsters which are now labeled for drop-off of cardboard only.

In 2005, the city purchased a new, automated baler. Prior to the acquisition of this baler, cardboard was required to be broken down and placed by hand in the baler when available. The new baler allows for more efficient and safer management of materials. Also in addition to cardboard, plastics #1 (PETE) can now be baled.

In 2006, the recycling center began accepting glass for diversion. The first load of glass was diverted on September 13, 2006, and it weighed 660 pounds. Currently, about two to three loads of glass averaging about 3,000 pounds are diverted each month. The glass is used by the Cody Landfill as part of its daily cover.

On January 1, 2008, the recycling center began accepting plastics #1 (PETE). From January 1, 2008, through May 31, 2009, 2,242 pounds of plastics have been recycled. (The center estimates that sixteen 20-ounce bottles weigh about one pound.)

During 1993, 184,882 pounds of material were recycled. In 2003, 964,713 pounds were recycled. Over the course of the first 10 years of the recycling program, the amount of material recycled increased by more than 500%. In 2007, 1,644,480 pounds of material were recycled. In 2008, a total of 1,586,640 pounds were recycled. Exhibit II has recycling data for the City of Cody.

The program currently recovers approximately 4.5% of the total waste stream. The calculation is based on figures in section 7.0 which lists tons received and tons charged and Table 3 and section 3.0 which segregate MSW from C&D. The Cody Landfill receives about 16,900 tons of municipal solid waste per year. During 2008, Cody accepted 793 tons of material.

- **16,900 tons MSW + 793 tons recycled = 17,693 total tons MSW**
- **793 tons recycled ÷ 17,693 total tons MSW = 4.5%**
- **Construction and demolition debris has not been included in the calculation of this recycling rate.**

3.0 POPOULATION, DEMOGRAPHICS, AND FUTURE WASTE CHARACTERIZATION

Population estimates and projections for 2009 to 2019 are provided in Exhibit S, Population for Wyoming Counties, Cities, and Towns: 2009 to 2019. The population estimates and projections were provided by the Wyoming Business Council. Exhibit R includes population estimates for municipalities and rural areas of Park County from 2009 through 2028.

The majority of solid waste generated in the county is municipal solid waste with households, retail businesses, travel and tourism establishments, and other small businesses composing the majority of the waste stream. Ranching and other agricultural interests contribute to the waste stream. Industry contributes to the waste stream with its major impact being petroleum contaminated soil (PCS) at the Powell Landfill and other soil disposed at the Cody Landfill. The majority of PCS by volume (and weight) is generated within a distance closer to the Powell Landfill than to the Cody Landfill. Since the Powell Landfill is currently permitted to accept PCS and the Cody Landfill is not, the Park County Landfill staff has determined that the Powell Landfill continues to be the most appropriate location for its continued operation of a PCS treatment area. Management of PCS is described in greater detail in Exhibit F, Park County Landfill Income. Tables in Exhibit F also list the income by waste stream.

Estimates provided by Park County Landfills, with support by Holm, Blough and Company, for MSW and C&D percentages are as follows:

Cody	MSW	65%
	C&D	35%

Powell	MSW	60%
	C&D	40%

Current residential development and increased localized oil and gas activity are currently contributing to the waste streams. Future waste increases may range from 1% to 2% per year. At this time, no significant changes in waste categories are expected. However, changes to the current solid waste management systems (such as tipping fee adjustments and construction of transfer stations) may result in significant modifications to the waste categories by disposal, recycling, and diversion.

4.0 SOLID WASTE COLLECTION

4.1 Summary of Collection Systems within Park County

Current solid waste collection providers include the City of Cody for residents within the Cody city limits, the City of Powell for residents within the Powell city limits, the Town of Meeteetse for the residents within the Meeteetse city limits, private haulers or individual generators (residents, and commercial interests) for rural residents and businesses. There are three private haulers in the county: Keele Sanitation, Two Tough Guys Services, and Garbage-B-Gone. Garbage-B-Gone does not dispose of solid waste at the Park County Landfills. Although many of those from whom solid waste is collected receive once a week collection, additional collection dates are provided at an additional cost by city, town, and private haulers. The City of Powell offers twice each week solid waste collection as part of their standard fees. As part of the standard fee, the City of Cody also offers twice each week collection for roll-out containers during summer months.

Collection costs (current and projected) for the Town of Meeteetse are included in Exhibit N. Collection costs for the City of Powell are included in Exhibit I. Collection costs for the City of Cody are incorporated into Table 6.

Meeteetse is considering the use of a private hauler and/or transfer facility since their truck for solid waste collection is about 11 to 12 years old.

Other than considerations of the Town of Meeteetse, there do not appear to be any pursuits of other changes to collection systems. The municipal and private haulers have been involved with the public meetings and have evaluated their costs, income, and operations. The proposed Park County Landfills disposal fee increase (up to \$90.00 per ton in October, 2009) is likely to result in some adjustments to generated MSW and C&D volumes and thus some modifications to the current collection systems.

4.2 Town of Meeteetse

Meeteetse collects solid waste within the city limits while private haulers collect waste in areas outside of Meeteetse. If the town's truck is unavailable (due to necessary repairs) private haulers (such as Keele Sanitation) have provided collection services.

Meeteetse has one collection truck which is about 11 to 12 years old. The cost to replace the truck would add significantly to the town's budget. If that option is selected, an increase to the patrons' solid waste rates would be necessary to fund such a purchase. The increased haul distance from the town to the Cody Landfill will add additional wear to the current truck.

Thus the town is considering the cost and benefits of using a private collection firm. A copy of the contract which the Town of Frannie has with Keele Sanitation is included as Exhibit N1. Peak Environmental has also researched other contracts and emailed at least two to the Town of Meeteetse.

Following are several aspects of consideration for development of a request for proposals (RFP) or request for quotes (RFQ). The following are not intended to replace advice provided by legal or financial counsel and are not intended as legal advice. The listed items are included to provide a list of commonly identified aspects if one is engaging the services of an outside contractor which provides solid waste collection and transport services.

1. Evaluate previous costs when private hauler was used (incidental basis) to develop an estimate of what an annual fee for complete privatization would be. Weather and increased solid waste volumes during summer and other times may affect such as estimate.
2. If the town elects to issue an RFP or RFQ, it would be preferable to have more than one firm submit a bid. However, given the limited number of private haulers, this may not be achieved.
3. When engaging a private firm for this service, incorporate language which ensures that the firm pays their landfill disposal fees in a timely manner to ensure that continued disposal (at the selected landfill) can continue. An evaluation of the firm's credit rating can be conducted, and it should include their credit history with the selected landfill. Legal and financial counsel can assist with this type of review and appropriate contractual language.
4. The types of collection containers used by the town must match the collection equipment and ownership of those containers must be explained in any contractual document. A change in collection containers can add a significant amount to a contract and customers' monthly bills.
5. The planning area (Park County) needs to move towards consistency with collection containers and vehicle types so that equipment and services are more interchangeable for maximum efficiency. This applies for both municipal solid waste (MSW) and recyclables collection.
6. For people in lower income brackets, the town should consider billing mechanisms used by other government funded programs. For example, some property taxes are adjusted for people of certain ages, capabilities, and income.
7. Since private firms collect MSW in the rural areas around Meeteetse, there may be some cost efficiency with the town using those private services. Until a bid or proposal is provided by a private firm, the potential impact on the town's cost cannot be estimated.
8. The town currently has several households or businesses which utilize one container. Efforts have been made to provide collection frequency and container sizes in order to minimize use of the collection truck and maximize the volume of the containers. Although this aspect may not change with the use of a private hauler, it would be prudent to request that the hauler provide an opinion about collection frequency,

container type and size, and route efficiency. These items should be periodically evaluated.

9. Meeteetse has an existing drop off center for recycling and works in partnership with Powell Valley Recycling. The town typically operates 1 day per week for 5 hours per day in getting the materials to PVR. If Meeteetse gets additional recycling equipment and expands their capabilities, the level of effort may require 2 full days of transport and 1 full day for labor to operate the recycling facility. Consideration may be given to including recycling task in a privatized solid waste collection and hauling agreement.
10. The Town of Frannie (with providing their haul contract) added that the contractual language regarding unusual damage may be difficult to define from a legal standpoint and as such would recommend that the wording be revised to spell out when the town will be required to replace the containers.
11. Any reference to “containers” or service type should define if it applies to commercial and/or residential. Since there is a different degree and type of use more specific language
12. The Town of Frannie noted that the following paragraph will likely be added to their contract with Keele Sanitation: **“SOVEREIGN IMMUNITY: TOWN, its officers, employees, appointees and representatives, does hereby reserve TOWN’S immunity from tort liability of any kind or nature, and nothing herein shall be considered a waiver of immunity as provided by law.”**
13. It is standard in many such agreements for liability insurance to be a contractual item. The specific amount should be listed in the RFP or RFQ after consultation with the town’s attorney. Additional provisions about insurance often specify that the customer is named as additional insured, that the customer be notified at least 30 days (sometimes longer) prior to cancellation, that proof of insurance be provided prior to commencement of work, and that it be provided for the term of the contract.

Additional related insurance items may encompass having a letter of good standing from the Wyoming Department of Employment for both workers’ compensation and unemployment insurance. Some contracts also carry a clause for employers’ liability.

The town may already have similar contracts which address these items.

14. Language which allows the contractor to adjust prices is important to control costs. Some communities have not included sufficient terms or appropriate language to prevent costs from increasing significantly in a short time period. Two of the contracts provided via email to the town earlier in June, 2009, contained some language to this effect. Discussions with other local government entities regarding franchise agreements with other services (such as cable TV, electricity, or natural gas service) may provide some insight as to how the town may best control such services.

15. An RFP or RFQ would need to list the number and types of accounts. This information is easily accessible by the town. Changes in the number or types of accounts would need to be addressed in a contractual agreement.

5.0 SOLID WASTE MATERIAL TYPES AND VOLUMES

The majority of solid waste generated in the county is municipal solid waste with households, retail businesses, travel and tourism establishments, and other small businesses comprising the majority of the waste stream. Ranching and other agricultural interests contribute to the waste stream. Industry contributes to the waste stream with its major impact being petroleum contaminated soil (PCS) at the Powell Landfill and other soil disposed at the Cody Landfill and which is described in greater detail in Exhibit F, Park County Landfill Income. Tables in Exhibit F also list the income by waste stream.

Estimates provided by Park County Landfills, with support by Holm, Blough and Company, for MSW and C&D percentages are as follows:

Cody MSW 65%
C&D 35%

Powell MSW 60%
C&D 40%

Current residential development and increased localized oil and gas activity are currently contributing to the waste streams. Future waste increases may range from 1% to 2% per year. At this time, no significant changes in waste categories are expected. However, changes to the current solid waste management systems (such as tipping fee adjustments and construction of transfer stations) may result in significant modifications to the waste categories by disposal, recycling, and diversion.

The Cody Landfill is continuing to survey areas to determine how landfill space is used based on time and approximate weights. The Cody Landfill also plans to install scales in the near term which will further this evaluation and planning process. This study will provide valuable information for the Cody Landfill Master Plan and thus assist with designing the future operations of the Cody Landfill.

6.0 CURRENT INCOME AND EXPENSES FOR PARK COUNTY LANDFILLS

6.1 Income

Income is listed in Exhibit F. Park County has agreements with the City of Cody, City of Powell, and the Town of Meeteetse in regards to solid waste disposal cost and contractual terms. Solid waste is weighed by the haulers. Future considerations for both the Powell Landfill and Cody Landfill would be to install scales at those sites.

The funding mechanism for the Park County Landfills is currently an enterprise fund so that disposal fees pay for the cost of the landfills and associated operations. As stated in other sections of this ISWMP, additional funding sources are being pursued by Park County to finance some of the initial capital expenditures which are associated with the first lined municipal solid waste disposal cell at the Cody Landfill; cell, equipment, and associated site improvements. The Park County Commissioners also recently voted to increase the waste disposal fees from \$60.00 per ton to \$90.00 per ton to offset increasing landfill expenses.

6.2 Expenses

Expenses are listed in Exhibit E. Park County has recently modified their accounting system which has resulted in elimination of some cost categories. The Park County Landfill office has revised their internal accounting system to afford them the opportunity to more accurately track some cost categories.

Peak Environmental recommends that two cost categories, closure/post-closure and equipment replacement both have funds assigned each year to allow sufficient monies to be available when both of these categories require expenditures. Recently, the Park County Landfills have pursued this cost assignment method.

7.0 DISPOSAL ALTERNATIVES AND COST ANALYSES

Currently the WDEQ has authorized the landfills to operate until the following dates:

Cody Landfill, April 22, 2009
 Powell Landfill, August 29, 2010
 Meeteetse Landfill, June 30, 2010
 Clark Landfill, December 1, 2010

The Crandall area is served by a 40 cubic yard roll-off container which is transported by a contractor to the Cody Landfill for disposal. The size of the facility precludes the need for a permit from SHWD, WDEQ.

A renewal application for the Cody Landfill was submitted to WDEQ in December, 2008. WDEQ has completed their first round of review, and responses are being prepared. It is routine for WDEQ to allow landfills to continue to operate without an operating permit letter if:

- 1) the landfill permittee is actively pursuing re-permitting or
- 2) WDEQ's review and approval of a permit application is pending.

Volumes used for cost comparisons are as follows:

Cody Landfill	17,000 tons charged (billed to customer) 26,000 tons received
Powell Landfill	10,000 tons charged (billed to customer) 13,000 tons received
Meeteetse Landfill	400 tons charged (billed to customer) 400 tons received
Clark Landfill	208 tons charged (billed to customer) 208 tons received

In the following sections for Cody and Powell Landfills, there are explanations for the differences in weights received versus weights charged (or billed to customers).

It is likely that SHWD, WDEQ will require engineered containment systems (liners) for landfill cells where MSW is disposed at the current Park County landfill sites. With this in mind and given the necessary lead time for appropriate permitting, facility design, and site construction, representatives for the citizens of Park County must make decisions about how to best manage the funds and services for solid waste management. Although the ISWMP process assists with making such decisions, the future regulatory requirements more imminently drive the need to make solid waste management plans as soon as possible.

This section primarily addresses disposal and thus landfills. Some recycling services have been discussed in this section. However, a more detailed section for future recycling alternatives is included in section 9.0 Current and Future Recycling and Diversion and in Exhibit G.

Following is a summary of alternatives which have been considered for the ISWMP. Tables 1 – 6 provide cost and landfill life summaries. It should be noted that some rounding in those tables has been done for ease of comparison.

7.1 Cody

1. Line the current landfill, accept MSW (in lined cell), and accept C&D in unlined cell.*
2. Cody hauls MSW directly to Worland Landfill (not lined) without a transfer station. Park County continues to operate C&D cell at Cody Landfill.*
3. Cody has a transfer station from which MSW is hauled to Worland Landfill (not lined). Park County continues to operate C&D cell at Cody Landfill.*
4. Cody has a transfer station from which waste is hauled to Casper Landfill (lined). Park County continues to operate C&D cell at Cody Landfill.*

7.2 Powell

1. Line the current landfill, accept MSW (in lined cell), and accept C&D in unlined cell.*
2. Construct a transfer station at the landfill, operate a C&D cell at the current (not lined) landfill, and transfer MSW to Cody Landfill.*
3. Construct a transfer station at the landfill, operate a C&D cell at the current (not lined) landfill, and transfer MSW to Cowley Landfill.*
4. Powell hauls MSW directly to Cody Landfill, and Park County operates a C&D cell at the current (not lined) landfill.*
5. Powell hauls MSW directly to Cowley Landfill, and Park County operates a C&D cell at the current (not lined) landfill.*

7.3 Meeteetse

1. Transport MSW and C&D to Cody Landfill.
2. Transport MSW and C&D to Cody Landfill with some recycling services.

7.4 Clark

1. Transport MSW to Cody Landfill (lined) and operate a C&D cell.*
2. Close landfill and transport all waste (MSW and C&D) to Cody Landfill (lined).

7.5 Crandall

1. Transport existing roll-off to Cody Landfill.

*Indicates that ancillary services (such as used oil recycling and acceptance of scrap metal) would continue.

7.6 Cody Landfill Accepting Waste from Cody and Meeteetse Areas Only

Exhibit J includes a pro-forma for the Cody Landfill with the basis being that it would accept all MSW for the Cody and Meeteetse areas. This pro-forma has been developed using a landfill life span of about 42 years. This evaluation also includes an assumption that a liner (and associated leachate collection system) would be constructed at the Cody Landfill with MSW being disposed in those lined cells. C&D waste would be accepted but would be placed in an unlined cell.

Table 2, Comparison of Cody Alternatives lists consideration of the above-mentioned alternatives with transfer and/or transportation costs included. The tonnage (17,000 tons) listed on Table 2 is the volume for which fees are directly charged. (The tonnage listed on the pro-forma was determined to be incorrect.) Using the total annual cost on the last page of the pro-forma (\$1,867,014) and tonnage of 17,000, the cost per ton is about \$110.00, which is listed on Table 2.

It should be noted that the pro-forma in Exhibit J was used as guidance to develop Table 2, Comparison of Cody Alternatives. Thus the \$110.00 per ton listed on the last page of the pro-forma was determined to not include sufficient funds for closure of the current Cody Landfill site. Thus an additional \$10.00 per ton was added to the closure and post-closure cost for the existing site in Table 2. The relative amount of MSW and C&D listed on Table 2 has been determined to be the amount of each waste category for which a disposal fee is currently charged.

An additional 9,000 tons (in addition to the 17,000 tons per year) are received at the Cody Landfill, but do not have an associated fee. The difference in tonnage includes clean-up events sponsored by the municipalities, the ability of city and town residents to dispose at no charge with proof of municipal solid waste collection bills, 5% credit for illegal disposal, 1% credit for grass clippings, and highway, other road, and related clean-ups. Currently these items are part of the contractual agreement between Park County and the public and private solid waste haulers. The parties are in new contract negotiations, and thus it has not yet been determined if these categories will continue to be accepted at no fee. Should "disposal at no assigned fee" be eliminated, income for the landfill will be modified.

A scalehouse and new maintenance building are proposed for the Cody Landfill. Construction drawings are being prepared with construction expected to commence during July, 2009. New entrance facilities which include a scale, scalehouse, and maintenance shop are expected to be operational by October 1, 2009. The use of scales is expected to result in more accurate comparisons of tonnage to volume used in the landfill. Since Park County is currently in the process of renegotiating disposal contracts with municipal and private haulers, the use of scales may also result in changes to generators' disposal habits. One of the objectives with the use of scales is that those who generate a greater weight of waste pay a greater total for disposal as their total waste weight increases.

The Cody Landfill proposes to construct and operate a lined cell for municipal solid waste to serve all of Park County and an unlined cell for construction and demolition debris for the City of Cody and Town of Meeteetse along with their respective rural areas. The lined facility would have an associated leachate management system. At or near the time that the current active area has no remaining disposal space, both the municipal solid waste and construction and demolition debris would be disposed in an area north of the current active operation of the Cody Landfill and in an

area designated as northern lateral expansion in the 2008 permit renewal application. Thus changes to the current operation include a lined facility with leachate management, new disposal location (although adjacent) for municipal solid waste and construction and demolition debris, and service area for more of Park County. That 2008 permit renewal application requests only that Phase 1 for the northern lateral expansion be approved for the upcoming permit term. Information for Phases 2 and 3 (also lined), however, were included in the 2008 permit renewal application to provide a better evaluation of the site life development. On May 14, 2009, the WDEQ provided comments which are currently being addressed by Park County and its consulting and engineering firms.

7.7 Powell Landfill

Exhibit L includes a pro-forma for the Powell Landfill with a transfer station being constructed at the current site, continued operation of a C&D cell, and continuation of ancillary services. This pro-forma has been developed using a C&D cell life span of about 30 years. Tonnages differ slightly (now 10,000 considered in other comparisons) and disposal cost differs from the proposed fee of \$90.00 per ton. If this pro-forma is reconsidered, revisions to tonnages, disposal fee, and other items may be appropriate. At this time, Park County and the City of Powell have had informal discussions about construction of a transfer station.

Exhibit K includes a pro-forma for disposing of MSW and C&D at the Powell Landfill. This would include continuing with ancillary services (such as collection of used oil for recycling).

Table 3, Comparison of Powell alternatives lists consideration of the above-mentioned alternatives with transfer and/or transportation costs included. The tonnage (10,000 tons) listed is the volume for which fees are directly charged. An additional 3,000 tons are estimated to be received at the Powell Landfill, but do not have an associated fee. The difference in tonnage includes clean-up events sponsored by the municipalities, the ability of city and town residents to dispose at no charge with proof of municipal solid waste collection bills, 5% credit for illegal disposal, 1% credit for grass clippings, and highway, other road, and related clean-ups. Currently these items are part of the contractual agreement between Park County and the public and private solid waste haulers. The parties are in current contract negotiations, and thus it has not yet been determined if these categories will continue to be accepted at no fee. Should "disposal at no assigned fee" be eliminated, income for the landfill will be modified.

It should be noted that the pro-forma in Exhibit K was used as guidance to develop Table 3, Comparison of Powell Alternatives. The pro-forma uses a tonnage of 10,200; and Table 3 uses a tonnage of 10,000. Using the total pro-forma price for lining the Powell Landfill and maintaining current operations (\$2,062,385) and the tonnage of 10,000, the cost per ton is \$206.23, which was rounded up for Table 3, Option 2. The 10,000 tons was determined to be a better estimate than 10,200 tons.

7.8 Cody Landfill Accepting All of Park County's MSW and C&D

Exhibit M includes a pro-forma for the Cody Landfill being lined for MSW and accepting all MSW for Park County. This pro-forma has been developed using a landfill life span of about 25 years. Tables 2, 3, and 4 (cost evaluations for Cody Landfill and Powell Landfill), comparisons did not include waste volumes from Meeteetse, Clark, and Crandall since their volumes contribute no more than 2% of the total waste stream. In other words, the waste volumes and generation points

of Powell and Cody are the major factors with financial decision making for Park County Landfills. However, the volumes of waste for Meeteetse, Clark, and Crandall are part of the volumes considered in Exhibit M for planning cell life and in the recent Cody Landfill 2008 permit renewal application.

Table 1, Cody Master Plan Proposed Cell Life includes capacities in both cubic yards and years and the footprint in acres. This table lists life and footprint by current site and the three proposed phases of the lateral expansion. The relative volumes of MSW and C&D are also listed for the current site and future phases.

Table 4, Park County Comparative Alternatives lists consideration of the above-mentioned alternatives with transfer and/or transportation costs included. The tonnage (27,000 tons) listed is the volume for which fees are directly charged. An additional 9,000 tons are received at the Cody Landfill, but they do not have an associated fee. The difference in tonnage includes clean-up events sponsored by the municipalities, the ability of city and town residents to dispose at no charge with proof of municipal solid waste collection bills, 5% credit for illegal disposal, 1% credit for grass clippings, and highway, other road, and related clean-ups. Currently these items are part of the contractual agreement between Park County and the public and private solid waste haulers. The parties are in contract negotiations, and thus it has not yet been determined if these categories will continue to be accepted at no fee. Should "disposal at no assigned fee" be eliminated, income for the landfill will be modified.

It should be noted that the pro-forma in Exhibit M was used as guidance to develop Table 4, Park County Comparative Alternatives. Thus the \$104.00 per ton listed on the last page of the pro-forma was determined to not include sufficient funds for closure of the current Cody Landfill site. Thus an additional \$10.00 per ton was added to the closure and post-closure cost for the existing site in Table 4. The relative amount of MSW and C&D listed on Table 4 has been determined to be the amount of each waste category currently charged a disposal fee.

Table 4, section 2, Park County Regional lists the proposed tipping fee for the City of Cody's MSW at \$110.00 per ton plus \$10.00 per ton for closure and post-closure resulting in a total disposal fee of \$120.00 per ton. That section of the table also shows a host tipping fee of \$95.00 per ton plus \$10.00 per ton for closure and post-closure resulting in a total disposal fee of \$105.00 per ton. The listed "total cost per ton" for Park County other than the City of Cody is \$120.00 per ton with \$15.00 per ton of that being for transportation cost. There has been no agreement among any of the entities (county, municipalities, or private haulers) that this "transportation subsidy" will be applied nor that any specific amount would be applied. This information has been listed as an example only for planning and estimating purposes.

A scalehouse and new maintenance building are proposed for the Cody Landfill. Construction drawings are being prepared with construction expected to commence during July, 2009. New entrance facilities which include a scale, scalehouse, and maintenance shop are expected to be operational by October 1, 2009. The use of scales is expected to result in more accurate comparisons of tonnage to volume used in the landfill. Since Park County is currently in the process of renegotiating disposal contracts with municipal and private haulers, the use of scales

may also result in changes to generators' disposal habits. One of the objectives with the use of scales is that those who generate a greater weight of waste pay a greater total for disposal.

The Cody Landfill proposes to construct and operate a lined cell for municipal solid waste to serve all of Park County and an unlined cell for construction and demolition debris for the City of Cody and the Town of Meeteetse along with their respective rural areas. It should be noted that the lateral expansion will have sufficient capacity to accept MSW from outside the county. The areas or populations served and the associated landfill life would be dependent upon the volume of waste accepted. The lined facility would have an associated leachate management system. At or near the time that the current active area has no remaining disposal space, both the municipal solid waste and construction and demolition debris would be disposed in an area north of the current active operation of the Cody Landfill and in an area designated as northern lateral expansion in this permit submittal. Thus changes to the current operation include a lined facility with leachate management, new disposal location (although adjacent) for municipal solid waste and construction and demolition debris, and service area for more of Park County. That 2008 permit renewal application requests only that Phase 1 for the northern lateral expansion be approved for the upcoming permit term. Information for Phases 2 and 3 (also lined), however, were included in the 2008 permit renewal application to provide a better evaluation of the site life development. If areas outside of Park County request disposal of MSW and/or C&D, the county must evaluate how such acceptance will affect landfill life, the current permit term (which is expected to commence in 2009) and the time frame under which permit applications for Phases 2 and 3 must be submitted to WDEQ. On May 14, 2009, the WDEQ provided comments which are currently being addressed by Park County and its consulting and engineering firms.

7.9 Meeteetse Landfill and Town of Meeteetse

Exhibit N is a cost summary for the Town of Meeteetse. This summary includes current and projected collection and disposal costs. Recycling costs have also been included. The costs for the Town of Meeteetse, upon closure of the Meeteetse Landfill, will be the cost per ton charged by the Cody Landfill. Planning for MSW for Meeteetse has been incorporated into the pro-forma for the Cody Landfill accepting MSW for all of Park County, Exhibit M. Thus disposal costs for Meeteetse have been addressed for 25 years.

The Meeteetse Landfill is permitted to accept waste until June 30, 2010. Park County Landfill staff have been working to extend the life by redirecting bulky items and larger loads to the Cody Landfill.

7.10 Clark Landfill

Exhibit O is a cost summary for Clark which also assumes continued ancillary services. Planning for MSW for Clark has been incorporated into the pro-forma for the Cody Landfill accepting MSW for all of Park County, Exhibit M. Thus disposal costs for Clark have been addressed for 25 years. Park County is considering closing the Clark Landfill to both MSW and C&D. Increases in transportation costs (for MSW and/or C&D) based on fuel prices and inflation would be expected. The cost of the new lateral expansion for the lined cell for the Cody Landfill and the county's cash flow will determine if closing the Clark Landfill is feasible. Landfill closure activities, according to WDEQ regulations, are supposed to be complete within 18 months of closing the landfill. Closing both the Meeteetse and Clark Landfills in a short time may prove technically and/or cost

prohibitive based on available resources. If the Clark Landfill were to close, consideration would be given to the cost of maintaining a transfer station (e.g., roll-off boxes of less than 40 cubic yards) and the cost to citizens for transporting their own waste or having individuals arrange for a private waste collection.

7.11 Crandall Area

The Crandall area is expected to continue to operate as it is currently, and thus no additional cost summary (other than the current operation in Exhibit E) has been developed for it. Future costs would continue to be based on Cody Landfill disposal fees. Planning for MSW for Crandall has been incorporated into the pro-forma for the Cody Landfill accepting MSW for all of Park County, Exhibit M. Thus disposal costs for Crandall have been addressed for 25 years. Increases in transportation costs based on fuel prices and inflation would be expected.

7.12 New, Unsited, Unpermitted Landfill

Another option for all of Park County is to construct a landfill at another location within Park County. Transfer of Park County's solid waste to a new landfill (not yet developed) is an option. A regional landfill could be pursued in cooperation with other Big Horn Basin communities. A centrally located regional landfill (i.e., not currently sited, engineered, purchased, or permitted) would be at least \$5,000,000 and most likely would require as much as 10 years to open. This would involve land acquisition, groundwater and geologic characterization, engineering, and site development. Land acquisition is a major limiting factor. Land purchase price and acquisition time are factors for which a land buyer has little or no control. Site development includes roads, power, water, wastewater, phone, building construction, and a variety of other site and area features which are currently in place at the Cody Landfill.

One consideration in considering a new regional landfill site involves WDEQ requirements pertaining to engineered containment systems (i.e., liners/leachate collection systems). Currently, some sites in the Big Horn Basin have been determined to be geologically suitable with natural containment systems thus negating the need for expensive liners and leachate collection systems as determined by the WDEQ. The WDEQ has determined that the existing Park County landfill sites are not supportive of design and operations without liner systems. A new regionally sited landfill facility would need to be situated in favorable geology such that liners and leachate collection systems would not be required in order to be cost effective. In addition, the location of the site in relation to the main population centers (Cody & Powell) would be an important consideration in terms of the added costs for transportation. It should be noted that the trend towards lined landfills in Wyoming is building momentum, and there is there is a good possibility that the WDEQ may eventually require engineered containment systems (liner and leachate collection systems) at all of Wyoming's landfills.

7.13 Disposal at Existing Area Landfills

Transport and transfer of solid waste to Montana may be an option at some future date. Discussions with the landfill at Billings, Montana, have indicated that they would not accept solid waste from Wyoming. An inquiry was made to the Washakie County Solid Waste Disposal District #1 as to whether they would accept Park County's MSW and/or C&D. They declined to commit to accepting Park County's solid waste at this time.

The City of Casper currently charges \$43.00 per ton. The City of Casper could accept Park County's solid waste for disposal. The time period during which this fee may remain in effect is not known. Should Park County choose to use the City of Casper's Balefill, consideration should be given to attempt to include a contract clause addressing a fixed disposal fee for a specified time period.

Rail delivery of solid waste to another landfill location within or outside of Wyoming has been briefly considered. Limitations to this alternative are that:

- 1) The shipper must have rail and transfer facilities for transfer of solid waste from trucks or transfer station to the rail cars.
- 2) The receiving facility must have appropriate rail and transfer facilities as in 1) above. Location of rail relative to the disposal site determines if trucks are necessary to transfer from the rail unloading facility to landfill. For example, the City of Casper was approached regarding their interest in receiving solid waste from other locales by rail. Mr. Craig McOmie, State Recycling Coordinator, WDEQ, stated that the City of Casper was not currently interested in this option of waste delivery.
- 3) Rail costs must be negotiated with the rail company and are not fixed from customer to customer. Rail options are often limited due to the inability to estimate costs.

7.14 Closure of Existing Park County Landfills

Since fiscal year 2007-2008, the Park County Landfill staff has set aside about 5% of receipts for landfill closure and post-closure with the objective being that the money would be used for the four currently operating landfills. About \$160,000 is in that closure/post-closure fund as of the date of this ISWMP.

The SHWD's Rules and Regulations, Chapter 7, Financial Assurance Requirements provide for voluntary participation of owners of municipal solid waste disposal facilities in the state's guarantee trust account. The account was created by the Wyoming Legislature to provide a state guarantee that adequate funds would be available to adequately close and conduct post-closure care and monitoring at municipal solid waste disposal facilities in the event of unanticipated closure. Participation in the account by owners of municipal solid waste disposal facilities satisfies the financial assurance requirements of the state's and the EPA's landfill regulations under RCRA. Rather than using contractors' bids for the specific site tasks for closure and post-closure, Park County has elected to use the SHWD's cost calculations for closure and post-closure. Thus annual premiums have been calculated by the SHWD. Park County has paid annually into the state account for all four currently operating landfills since 1997. This state managed account functions as an insurance policy in effect and does not have sufficient funds to fund closure or post/closure tasks for any of the landfills.

It should be noted that WDEQ did not require this financial assurance payment from landfills until 1997. There was no legislation prior to this which required landfills to maintain their own closure/post-closure accounts nor did the state have a mechanism for collecting such funds. Additionally, all of Wyoming's municipal solid waste landfills (except for one) are publicly owned

which results in a different evaluation of long term liability since governments do not “go out of business” in the same fashion as private enterprise. Many of Wyoming’s landfills which have initiated closure/post-closure funds internally (i.e., not WDEQ’s fund) have done so only recently (within about the past five years). Some government financial managers had required that all monies be spent each year rather than creating a reserve account for any purpose.

To close all four landfills at once (or within a short time period), at least \$1,386,000 would be required to be available within about an 18 month period. WDEQ’s regulations state that closure applications must be submitted between 270 and 180 days prior to the date a facility is scheduled to close. The closure process for sanitary landfills must begin within 30 days of the date on which a facility ceases to receive wastes and must be completed within an additional 180 days. The closure process for industrial and construction/demolition landfills must begin within 9 months of the date on which a facility ceases to receive wastes and must be completed within an additional 12 months.

There are additional landfill sites which have either been operated by Park County and/or on land owned by Park County. Clark #1 landfill is near the current Clark Landfill (also known as Clark #2) and is land owned by Park County. The former Kysar site is also on land owned by Park County. The former Cody Landfill site (operated by the City of Cody) is adjacent to the current Cody Landfill and is now on land owned by Park County (recently transferred from the U. S. Government to Park County). There are funds (about \$180,000) designated for tasks related to “old landfills” (which may or may not have been permitted). It has not been determined if or to what extent closure/post-closure monies generated for the current Cody Landfill or monies from the “old landfills” may be used for closure/post-closure at the former Cody Landfill site. Additionally, the tasks (e.g., site reclamation or environmental monitoring) to be completed at the “old landfills” have not been determined, and thus the cost of future activities cannot be estimated. The above mentioned costs for closure/post-closure of the four operating landfills would not necessarily apply to the “old landfills” for a variety of reasons including the fact that additional monitoring wells may be required, the sites have not operated for a long time period, and may require additional ground stability and/or revegetative work.

The costs included in the proposed alternatives in this ISWMP do include a full consideration of closure and post-closure costs for Park County’s currently operating landfills. The closure and post-closure costs are also based on current conditions and situations.

8.0 OTHER WASTE MANAGEMENT ALTERNATIVES AND COST EVALUATIONS

In working towards a comprehensive integrated solid waste management strategy for the planning area (Park County), a wide range of alternatives are available and were considered. In addition to the waste collection and landfill disposal options presented in other parts of this document, the benefits and costs associated with waste to energy, full scale material recovery (MRF), baling, and waste transfer were also fully evaluated. The following information addresses each of these alternatives and presents the relative advantages, disadvantages, and costs for the various waste management alternatives.

8.1 Waste to Energy

With the current push towards alternate energy sources, waste to energy projects have become increasingly popular over the past several years. Several companies in Europe and North America have developed patented waste incineration processes that are now used throughout the United States. Unfortunately, facilities of this type are typically sited and reserved for large population centers where economies of scale on throughput can be realized. In most cases a minimum throughput of 250 tons per day is needed to sustain a typical waste to energy project (5 megawatt power potential). In addition, access to the electrical grid infrastructure is needed. In areas where natural resources and available energy are plentiful and less expensive (i.e., Wyoming), the economic viability of such projects is vastly reduced. According to the Solid Waste Association of North America (SWANA), there are more than 500 municipal waste incinerators, of all sizes, operating in the U.S. and Canada. The majority of incinerators (especially the older ones) deal only with the incineration of waste and are not actively involved in energy production. Of those more than 500 units, approximately 45 incinerators produce electricity. Several of these are located in California which has some of the most rigid environmental standards in the world.

Assuming that waste could be attracted from other outside sources to make such a project economically viable, it is estimated that the cost to site, permit, and construct such as facility would exceed \$25 million. The debt service would add another \$13.4 million in cost over a 20 year period. Annual operation and maintenance costs would be roughly \$1.3 million per year based on data from existing operating facilities. The debt service would generally be offset with the revenue from the sale of electricity to the power grid (43,200,000 KWH X \$.0575 U. S. Dollars). Although the estimated cost to site, design, construct, and operate a 250 ton per day facility would be in the range of \$80 per ton. The estimated costs to design, construct, and operate a waste to energy facility (including collection, transportation, and disposal of residual materials) with less than 70 tons per day of throughput would be more than \$200 per ton. This is based on an extrapolation and interpolation of a 250 per ton per day cost model for a similar sized facility under development in the Warrenton, Virginia, area (Feasibility Study- Antares 2007).

In addition to the above noted economy of scale and throughput limitations, the siting and permitting of a full scale waste to energy facility in Park County within 50 miles of Yellowstone Park would very likely face considerable public scrutiny and siting/permitting obstacles. Although the associated technologies have continued to emerge and improve in terms of environmental compatibility in recent years, public perception and acceptance of such a project in this area is

highly uncertain. With this in mind, it is likely that the siting and permitting process could take up to 10 years or longer.

8.2 Methane Recovery for Fuel

Methane recovery from municipal solid waste (MSW) landfills has become very common in recent years. Landfill gas development projects have emerged due to alternate energy incentives including tax credits at the federal, state and local levels. Unfortunately, most landfill gas development projects require large landfill sites, larger waste streams, and sufficiently wet climates to promote the microbial activity necessary to generate usable quantities of landfill gas. All of these are limiting factors as to the economic viability of developing a landfill gas recovery project at a regionally located MSW disposal facility in Park County. The fact that there are currently no landfill gas development projects operating in Wyoming is reflective of these limiting market conditions. Pursuit of methane recovery from a Park County Landfill is considered not economically feasible at this time based on the current waste stream, abundant (relatively inexpensive) natural resources, and the arid climate.

8.3 Waste Transfer with Baling Capability

Another alternative generally considered as part of the ISWMP process involved the possibility of siting a centralized solid waste transfer station with baling capability to serve all of Park County while transferring the baled waste to a regional MSW landfill outside of Park County. Under this scenario, MSW would continue to be collected locally utilizing the existing equipment, trucks, and personnel to the extent possible and practical. For the purposes of this study, it is assumed that a full scale transfer station with baling and recycling capability would be sited midway between Powell and Cody along the Powell Highway. It is also assumed that construction and demolition waste materials would continue to be managed and disposed at the current Cody and Powell Landfill sites.

The transfer station could be expected to manage roughly 19,960 tons of MSW initially which would include roughly 6,200 tons of MSW per day from Powell, 11,000 tons from Cody, and roughly 2,760 tons from Meeteetse, Clark, Crandall, and other rural Park County areas. Assuming that the facility would be designed for a 30 year service life with an expected 1% annual increase in MSW delivered to the facility, the maximum design capacity for the facility would need to be roughly 27,000 tons per year.

Based on similar examples across the country including some similar operations in Wyoming, a transfer station with full scale baling and recycling capability would cost between \$2.0 and \$2.5 million dollars to site, construct, and equip depending on the type and extent of recycling desired. The debt service for the initial capital investment realized over 30 years at 4.5% annual interest would add another \$2.1 million to the cost of the facility. Operating costs for a facility of this size would be approximately \$190,000 per year based on published data for similarly sized facilities. This would result in an average cost of roughly \$17.20 per ton to site, permit, construct, and operate a transfer station facility with full recycling, baling, and transfer capability. This cost does not include the costs for transfer to an end user recycler or marketer or the costs to transfer and dispose any waste not recycled at a WDEQ permitted municipal solid waste landfill.

As discussed in previous sections of this ISWMP, the host tipping fee for waste disposal facilities outside Park County are uncertain and are likely subject to change. For example, the average disposal rate in Casper is roughly \$43 per ton. Estimates of \$125 per ton have been floated as a tipping fee for the permitted waste disposal fee at Worland. The landfill at Cowley would likely be in the \$70 per ton range but it is unclear whether or not the landfill could accept Park County's waste due to available capacity limitations. In addition, it is understood that the North Bighorn Landfill (Cowley) rates are based on the continued design, construction, and operation without an engineered containment system (i.e., liners and leachate collection systems). If the WDEQ were to require lining and leachate collection systems at the Cowley facility, the fees would likely increase sharply and would be closer in line with the \$125 per ton rates planned for other areas in the Big Horn Basin and seen in other parts of Wyoming. Regardless, the best case scenario of waste transfer to Cowley at \$70 per ton was used as the basis for this comparison.

A best case scenario of waste transfer from the centrally located baler/recycling/transfer facility located midway between Cody and Powell would involve a round trip haul of about 100 miles. Using the transfer costs and assumptions discussed previously, an average transfer cost of \$0.20 per ton per mile would result in transfer costs of about \$20 per ton to transfer the MSW to Cowley. This would be in addition to the \$15 per ton cost discussed previously to address the additional collection related transportation costs to divert waste to a centrally located facility. Therefore, the total cost to site, construct, and operate a full scale baling/recycling, and transfer facility and then transfer and dispose the baled waste to a regional landfill in neighboring Big Horn County would be in the range of \$122.20 per ton (best case at Cowley). If the baled waste were to be transferred to Worland, the transfer costs would be \$40 per ton, (See other sections of this ISWMP.) and the disposal fees would be closer to \$125 per ton yielding a total estimated cost of \$197.20 to construct/operate the baler/recycling/transfer facility while transferring the baled waste to Worland for disposal.

In summary, the estimated costs for this alternative would be highly variable, uncertain, and subject to change but would be in the range of **\$122.20 per ton to \$197.20 per ton**. It should be noted that careful considerations, negotiations, and contract language would have to be formulated to protect Park County and Park County's interest if Park County's waste were to be transferred to an unlined out of county waste disposal facility for which Park County has no siting, design, and operational control. Also, this scenario assumes continued operation of C&D waste landfills at Powell and Cody. As discussed in previous sections of this ISWMP, the costs for C&D waste disposal would be in the range of \$120 to \$130 per ton under this scenario.

8.4 Material Recovery Facility with Baler

The costs of full scale material recovery are highly variable and dynamic depending on the availability, continuity, and reliability of available markets, proximity of end users, and other factors. For the purpose of this ISWMP, comparisons with other similar full scale operating material recovery facilities (MRFs) provide the basis for the cost analyses described herein.

An MRF accepts materials, whether source separated or mixed, and separates, processes and stores them for later use as raw materials for remanufacturing and reprocessing. The main function of the MRF is to maximize the quantity of recyclables processed, while producing materials that will generate the highest possible revenues in the market. For the purpose of this ISWMP, it was assumed that the primary resource recovery means would be by use of mechanical materials separation and recovery. The stages involved in designing an MRF system to process commingled recyclables include:

1. Conceptual design
2. Evaluation of the markets and economics of operation
3. Development and gathering of data necessary for the design
4. Detailed engineering design of system
5. Siting design
6. Procurement of equipment
7. Construction
8. Processing of materials
9. Marketing

Even in a best case scenario, current recycling efforts generally involve uses and markets for paper, glass, ferrous containers, aluminum containers, cardboard, newspapers, and plastic containers. Typical MRFs of the size and type that would be required for Park County would likely involve the use of conveyors, magnetic separation (ferrous materials), screening (disc and trammel), air classification (used to separate lighter materials from heavier materials, rotating disc separator (for non-ferrous metals removal), Detect and Route (DAR) systems (for separating different types of plastics), and possibly a DAR system for separating various types of glass by color. There are also DAR systems available for paper sorting which also have proven to yield mixed results in terms of performance and efficiency. In order to properly manage the wide range of materials and to maximize efficiency in the diversion, transfer, and deliver of the recovered products, the MRF would also require compaction and baling capabilities.

Based on existing facilities that operate with similar waste streams, a full scale MRF to manage all of Park County's waste would require a building with at least 30,000 square feet of floor area and would require roughly \$3.5 to \$4.0 million to construct and fully equip. Some of the best case scenarios nationwide have achieved up to 80% recovery and reuse of materials; however, due to the remote and rural nature of Park County, availability of markets, and other factors, a goal of 50% was assumed as the basis for this cost comparison. The debt service for the capital costs of the facility assumed over 30 years at 4.5% interest would total an additional \$3.4 million. The cost for operation of the MRF based on regional averages would be roughly \$32 per ton of materials diverted. Assuming the recycled materials could be transferred to a regional recycler within a 200 mile round trip radius, the costs for transportation to an end user based on the \$0.20 per ton per mile transportation costs used previously would be \$40 per ton for the diverted recyclables.

Although there are some opportunities for sale of certain materials as a possible revenue source, for the purpose of this study the markets are considered too variable and uncertain to rely on as the basis for cost comparisons. Therefore, it is assumed that the recovered materials could be given away for some positive or beneficial end use. Therefore, the cost per ton of materials diverted as a result of recycling would be roughly \$88 per ton including capital costs of the facility, operations, and transfer to the end user. The costs to divert the remaining 50% of residual materials to a landfill would be \$32 per ton (processing/separation), plus \$20 to \$40 per ton transportation (Cowley vs. Worland), and \$70 to \$120 per ton for disposal at either Cowley, Worland, or other permitted waste disposal facility located in the Big Horn Basin. In addition to the above costs, both Cody and Powell could expect additional transportation costs for their collection vehicles in diverting waste to a centrally located facility. These costs are estimated to involve roughly \$15 per ton. Therefore, the total cost for waste management in Park County (not including collection costs) for Park County under this scenario (MRF with baler) would be estimated as follows:

Materials Diverted for Recycling: \$88 per ton (50% Diverted)

Materials Diverted for Disposal: \$44 per ton (Processing at MRF)

\$20 to \$40 per ton (Transfer to Bighorn Basin)

\$70 to \$125 per ton (Disposal in Big Horn Basin)

\$134 to \$209 per ton (50% Diverted)

+ Additional Collection Transportation Costs at \$15 per ton

Using weighted averages (50% diverted and 50% disposed), this scenario would cost Park County citizens between \$119 per ton and \$156 per ton. As stated previously, the variable nature of the recycling markets as to whether or not there would be reliable end users for the various materials recovered is highly questionable in today's economic climate. In addition, the variability and uncertainty regarding disposal alternatives outside of Park County minimizes the opportunity for accurate planning estimates. For this reason, the **range of \$119 per ton to \$156 per ton** for this alternative is considered accurate for general planning only and should be evaluated much more thoroughly using waste sorting, market analyses, and other means if the county wishes to explore this alternative further.

8.5 Municipal Solid Waste (MSW) Composting

Creating compost from MSW is another option for disposal and reuse of solid waste. A successful compost and transfer facility is located just north of West Yellowstone, Montana. This \$4.5 million dollar facility owned by Gallatin County accepts MSW from Yellowstone National Park and converts a portion of the MSW into compost that is stored and marketed at the facility. At this time only 30% - 40% of the MSW becomes compost, and the remainder is trucked to a landfill at Logan Montana. (Preliminary estimates were that about 70% of the MSW could be composted.) All MSW (except the compost portion) from the West Yellowstone area is transferred to the Logan, Montana, landfill. There is no landfill in the West Yellowstone vicinity. This compost facility truly is "state of the art", is a sophisticated process, and expensive. The tipping fees are \$166.00 per ton for MSW delivered to the tipping floor. All MSW transferred to Logan, Montana, is charged \$125.95 per ton, and this cost includes the transfer, transportation, and tipping fee at Logan. Although composting is an option for Park County, it appears to be much too expensive to pursue at this time.

9.0 CURRENT AND FUTURE RECYCLING AND DIVERSION

9.1 Current Operations

Recyclers in the county include the City of Cody, Powell Valley Recycling, and Regional Recycling, LLC. Other businesses within Park County also accept a variety of materials for recycling (such as businesses which must accept vehicle batteries for each one sold). Histories of the Powell Valley Recycling (PVR) and the City of Cody's recycling program are included in section 2.0 Park County Solid Waste History.

Diversion and recycling are also conducted at all four Park County landfills. Services offered (which vary by landfill) include acceptance of used oil (which is recycled), vehicle batteries (which are recycled), scrap metal and white goods for recycling, and green waste (e.g., leaves, grass clippings, brush, manure, and tree limbs) for use as cover, composting (with dead animals at Cody and Powell Landfills), or burning of clean wood (at all four landfills as conditions allow under an active smoke management permit issued by the WDEQ).

Although all of these items are not recycled, they are separately managed to allow more efficient use of the waste categories. The landfills do not charge for managing these special waste streams. The operating costs listed in Exhibit E for the current operations include management of these special waste streams. Both current and proposed landfill operations described in this plan assume that these services will continue to be provided. The costs per ton for proposed landfill operations are costs charged for municipal solid waste (MSW) and construction and demolition debris (C&D) with that income being used to manage the special waste streams. Both the current and future objectives with funding special waste streams in this fashion benefit both the landfill operations and patrons by the following:

Landfill patrons:

- wish to not be charged for these special waste streams,
- prefer the convenience of sorting such waste, and
- support these methods of waste diversion at the landfills.

Landfill operator:

- gains air space by diverting special waste streams,
- reduces the potential for adverse environmental impact,
- gains income from recycling white goods and scrap metal
(in years when value is sufficient), and
- improves efficiency of several aspects of the landfills' operations.

Although private recyclers and private waste haulers were contacted for various aspects of this and previous reports, income and expense information was unavailable. The amounts of materials recycled by any of the private recyclers were not obtained. Since income, expense, and volume handling information may be proprietary, Peak Environmental does not recommend pursuing this data further. Private recyclers (such as Regional Recycling, LLC) have not been addressed in this document. Private recyclers and other supporting private enterprises are welcome to participate in this program development at any time.

Exhibit G includes a summary of income and expense information along with recyclable commodity information for Powell Valley Recycling.

PVR receives income from the sale of commodities, city support which is billed by the City of Powell to each solid waste account, business support, other gifts and donations, and rental space for a trailer stored at their facility. A list of those income streams by category is included in Exhibit G.

The City of Cody funds its recycling program with the sale of commodities and from the sanitation budget (which functions as an enterprise fund). For the City of Cody, the most recent cost information initially provided was for 2004-2005 since that is the most recent year for which sanitation (collection) and recycling were recorded separately. According to information provided by the City of Cody, the city's recycling program currently costs the city about \$130,000 per year. Although the current recycling commodities markets are variable, the city estimates that approximately \$22,000 per year is realized from the sale of recycled materials. The city is proposing a fee to citizens and businesses to help fund the recycling budget shortfall. Specifically, the city proposes to implement fees of \$1.50 per household per month and \$5.00 per business per month (fee may vary based on collection frequency and solid waste amount) to cover the \$108,000 recycling budget. It should be noted that the city estimates that about \$75,000 is saved by the city by diverting the recycled materials from disposal at the Park County Landfills by not incurring disposal fees for the recycled amounts.

Both the PVR and City of Cody's recycling programs are at their physical capacities without major infrastructure, storage expansion, and improvements. If increased volumes are accepted at either operation, they would need to move to larger facilities. This would require larger buildings, additional equipment, increase in square footage of the property, increased staffing, and associated increase in support costs (such as utilities and fuel).

9.2 Future Operations

9.2.1 Background and Summary

To further the development of a centralized recycling operation to serve all of Park County, the City of Powell, City of Cody, Park County, and Powell Valley Recycling (PVR) have had several meetings. Exhibit G contains a copy of a letter of agreement which has been signed (separately) by Park County, the City of Powell, City of Cody, Park County, and Powell Valley Recycling (PVR). Currently, PVR, the City of Cody, and Regional Recycling, LLC are the major recyclers in the county.

Several organizational and informational meetings have been held involving the above named parties and other interested organizations and citizens. Peak Environmental has developed one report for this group and anticipates development of at least one more to assist the group with pursuing funds and facilities.

Portions of this ISWMP and documents developed for the above group specific to recycling are intended to summarize the history of recycling in Park County, to explain opportunities and obstacles to recycling and diversion in the county, to describe potential budget (income and

expense) items, and to list operational needs and expectations for a centralized county recycling operation.

Although private recyclers and private waste haulers were contacted for various aspects of this and previous reports, income and expense information was unavailable. The amounts of materials recycled by any of the private recyclers were not obtained. Since income, expense, and volume handling information may be proprietary, Peak Environmental does not recommend pursuing this data further. Private recyclers (such as Regional Recycling, LLC) have not been addressed in this document. Private recyclers and other supporting private enterprises are welcome to participate in this program development at any time.

Both PVR and the City of Cody recycling programs are at their capacities. Both facilities and programs need larger facilities, changes in equipment to manage larger volumes, and increased staff to continue serving area citizens. Exhibit G includes a proposed budget for development of a centralized county recycling operation which would, at this point, involve the PVR board as the managing partner.

The details of what resources the City of Cody might transfer to PVR have not been determined. The development of a preliminary budget, however, allows all parties to evaluate which costs are associated with various services (collection, transportation, management, and marketing) and thus determine potential funding sources.

Exhibit G includes a budget and operational description for a future centralized recycling operation for Park County and the surrounding areas. Specific equipment items and personnel time and wages have been listed to provide as much detail as possible. There are, however, a number of items for which equipment type (e.g., portable recycling containers), new facility location, and transportation responsibilities have not yet been determined. The intent with Exhibit G is that it provide a basis from which the involved parties can proceed with continued plans.

9.2.2 Special Waste Management

9.2.2.1 Bear-Resistant Recycling Containers

Due to the remote nature of portions of Park County, consideration should be given to acquisition and use of bear-resistant recycling containers. Ms. Tara Hodges, Bear Wise Community Coordinator, Wyoming Game and Fish Department, contributed the majority of information in this section. Ms. Hodges has been in discussions with the Park County Commissioners regarding her interest in pursuing options. Other organizations in Park County (such as Park County Landfill staff, municipal entities, and PVR) have not made decisions regarding the use of bear-resistant containers. Grant monies may be available for initial acquisition of such containers and thus associated costs have not yet been finalized.

This section is provided for preliminary cost and informal purposes. Ms. Hodges' contact information is as follows:

Ms. Tara Hodges
 Bear Wise Community Coordinator
 Wyoming Game and Fish Department
 2820 State Highway 120
 Cody, Wyoming 82414
 307-272-1121

Recycling trailers which may be placed in the South Fork, North Fork, or Meeteetse (depending on how far out of town) in Park County have the potential to attract both grizzly and black bears. It is important that Park County entities consider purchasing bear-resistant recycling trailers for use in these rural areas to minimize human-bear conflicts and insure residents' safety. Bear-resistant trailers are not necessary in the City of Powell or in the City of Cody.

Depending on resident participation and frequency of servicing, rural areas of Park County will require at least a 10 cubic yard capacity trailer. With limited county or recycling program resources, a current assumption is that the trailer will be serviced once each week or once every two weeks.

Recycling trailers with bear-resistant features (with a 10 to 16 cubic yard capacity) can cost \$9,000.00 to \$36,500.00. Local quotes have not been investigated, but they should be considered in order to match trailers and equipment to local needs. See Tables PVR7 and PVR8 in Exhibit G for more description and attached spreadsheets.

Ms. Hodges has been pursuing estimates for recycling trailers. There is a wide variability of trailers' features and the type of equipment used to transport the trailers to a recycling center and equipment used to unload (if necessary) has not been determined. Tables PVR7 and PVR8 are provided as comparison of relative costs. The type of equipment available to unload the trailers and to transport the trailers will allow further investigation of trailer costs.

Grant monies may be available, with Ms. Hodges' assistance, to support the purchase of the bear-resistant trailers. The various parties with interests in recycling have not concluded who will be responsible for transport of such trailers. The cost of transportation from the rural areas and incorporated areas of Park County has been estimated in Table PVR6, Collection Container and Transportation Costs in Exhibit G. Grant monies are not available for supporting the cost of transportation to a recycling center.

9.2.2.2 Hazardous Waste

For the past several years, Park County Landfills have cooperated with county wide efforts (Park County Weed and Pest District, Park County, and municipalities) to sponsor household hazardous waste collection days. Various involved parties contribute designated percentages to this effort with collected waste being properly disposed by properly permitted hazardous waste contractors. These efforts have involved public education campaigns. Park County Landfills and other previously participating entities will continue these efforts as funds are available.

The WDEQ's Pollution Prevention Program Coordinator, Mr. Steve Roseberry, 307-777-7347 or SRoseb@wyo.gov serves as a resource for hazardous waste issues both at home and work. As noted later in this ISWMP, both WDEQ and EPA have an extensive educational resource list.

Park County Landfill staff conduct inspections of loads as part of their permit requirements to prevent inappropriate wastes from being disposed in the landfill. In addition to households which may generate hazardous waste, businesses can also generate hazardous waste. Special disposal requests are considered by the landfill manager in order to avoid inappropriate disposal. The landfill staff also inform disposers of potential issues, field questions at the gates and by phone regarding which materials are acceptable for disposal, and identify businesses which have a potential to dispose of inappropriate waste. Park County Landfills and their waste management partners will continue to educate the public about the use of household hazardous materials and waste prevention. They will also continue to inform businesses about hazardous waste generation issues, disposal options, and related regulatory issues.

9.2.2.3 Electronic Waste

Segregation of electronic waste has been investigated by the Park County Landfills. At least two contractors have been identified who routinely travel to the Park County area. At this time, sufficient funds are not available to segregate such waste. Park County Landfills do, however, provide electronic waste disposal information to those interested in funding their own recycling efforts.

The centralized recycling operation effort in Park County will also be evaluating how they can assist county citizens and businesses with recycling electronic waste. Related information can be one aspect of their public education efforts.

9.2.2.4 Tires

Tires are currently being baled at the Cody Landfill and Powell Landfill. A contractor is providing the baling service and transporting them to a temporary repository in Montana. The objective is that the tires will be reutilized when recycling markets rebound. The current tire recycling and reuse market presents significant challenges to Wyoming. Park County Landfills and recyclers will continue to evaluate options since a variety of factors influence both cost and markets.

9.2.2.5 Construction and Demolition Waste

Construction and demolition waste (C&D) waste is diverted and reused as much as possible at the Park County Landfills. Some asphalt is used as road material for roads within the landfill. Clean wood is diverted for burning according to the air permits held by the landfills.

Exhibit P is a memorandum from WDEQ which lists materials which are acceptable for placement in a C&D cell and examples of those which are not acceptable for a C&D cell. With the proposed landfill fee increase, local contractors are likely to pursue diversion opportunities simply to reduce their disposal costs. Landfill staff will continue to be diligent about allowing appropriate materials into designated cells. The construction of the new lined cell at the Cody Landfill is expected to also result in more stringent inspection of loads at the Cody Landfill in order to maintain the space in the lined cell for MSW.

Some general options which can be pursued to encourage diversion are for the county to work with municipalities to develop incentives for C&D diversion and tie those to building and demolition permits. Both the county and municipalities are limited by their existing ordinances for such waste materials. Project cost can be used to develop triggers at which contractors must divert a certain percentage from the landfill or a cost added to the building or demolition permit. If costs are added to building or demolition permits, a mechanism must be in place to use those funds for improved solid waste management.

Some of Wyoming's communities have a stipulation with demolition permits that the building inspector can require testing of building materials such as for asbestos or PCBs in light ballasts in order to prevent regulated wastes from being improperly disposed.

9.2.2.6 Other Special Waste Streams

Composting, used oil, and vehicle batteries have been addressed elsewhere in this ISWMP. The use of grass as part of daily cover may be reduced or cease when the Posi-Shell™ is used at the Cody Landfill.

Objectives of special waste stream management are to limit the potential for long term liability and adverse impact to the groundwater (such as can occur with hazardous wastes) and to divert, recycle, and reuse other waste streams such as metals.

Park County Landfills will continue to work in conjunction with municipalities, recyclers, and rural areas to continue these objectives.

9.3 Limitations to Recycling

The following are major factors that can affect recycling levels and costs:

1. Cost of fuel
 - a. This factor affects all costs such as equipment, facilities, personnel, and other daily operating costs.
2. Locations of markets for recyclables
 - a. This factor influences the availability of the markets and distance to markets.
3. Value of recyclables
 - a. Several markets have recently experienced significant reductions in recyclables' value. World markets influence the value, and thus recycling centers have little to no ability to improve upon this factor. This aspect is one that requires a strong manager with sufficient time to devote to maximizing market value.
4. Quality of recyclables
 - a. The quality of loads determines if loads will be accepted by markets and the values of the loads. The public must be willing to properly prepare recyclables and prevent rejected loads. There may be additional effort necessary on the part of a recycling center's staff to prepare loads.

5. Transportation costs

- a. Trucking costs can be managed by the use of contracts with private haulers or by purchasing a tractor and trailer combination. If a truck (tractor/trailer) is purchased, a driver must have a CDL (commercial driver's license). Implementation of health and safety programs (e.g., in regards to drug and alcohol testing) will be necessary. Overhead costs for those health and safety programs and truck maintenance must be considered. As the number of loads increases, it becomes more cost effective to purchase a truck and add a driver to the staff. The number of loads and the timing of their delivery influence whether truck and driver acquisition or contracting is better. At this point, it appears that contract transportation offers the most flexibility for Park County's recycling programs.

Peak Environmental contacted Teton County to request information about their cost per ton for recycling. For their ISWMP, a cost of about \$190 per ton for recycling of traditional commodities (i.e., exclusive of items such as hazardous waste, yard waste, wood, and scrap metal) was developed. For fiscal year 2008, Teton County recycled 9.8% (traditional recyclables). A summary of their operation is included in Exhibit H.

Currently PVR recycles about 8% of the solid waste stream for Powell. Peak Environmental has evaluated several recycling programs throughout the state during the past few years for a variety of projects. The best recycling percentages range from about 10% to 15% of the total waste stream. This percentage does not include scrap metal recycled by scrap metal dealers, used oil or vehicle batteries, or green waste (grass clippings, leaves, branches, and other similar organic materials). Communities which incorporate green waste into their recycling percentages generally show a significantly higher rate of recycling. The amount of metal recycled by private scrap metal dealers is unavailable due to its being proprietary information. Traditional recyclables as noted above include plastics, glass, some metals, and paper products.

Proposed increases in the Park County landfill disposal rates (projected at \$90.00 per ton in October, 2009) may result in an increased volume of recycled materials in order for generators to decrease disposal costs. Economics has been found to be a major factor with influencing volumes and types of materials recycled in other parts of the U. S.

The citizens of Park County have supported recycling efforts in many ways over a long time period. The demand for such service throughout the county illustrates that need to continue to offer and expand recycling and diversion services.

9.4 Funding Sources

The organizational structure of a recycling program determines which funding sources are available. Exhibit O1 contains a chart of eligibility (with key for acronyms).

USDA Rural Development Water and Environmental Programs (RD WEP), and USDA Rural Development Community Facilities Programs (RD CF) may be the only funding sources for a non-

profit organization such as Powell Valley Recycling. (See Exhibit O1.) A government owned and operated recycling facility could be eligible for funds from more sources.

It should be noted that every funding source:

- 1) requires some type of application process,
- 2) may require partnering with other government agencies,
- 3) may require matching funds and/or loans,
- 4) will have stipulations or restrictions about how money can be used and other restrictions about the operations or policies of the receiving group, and
- 5) may have other criteria which present obstacles to the receiving organization.

This section includes brief descriptions of funding sources, and in some cases, the amount of money that might be available. The listing in this section of a potential fund does not indicate that the money would be available for Powell Valley Recycling, the City of Cody, or any other recycling organization. The funds described in this section are those which have received the most discussion to date.

9.4.1 Solid Waste District, Property Tax Funding

The Park County Landfills currently function as an enterprise fund which means that landfill receipts are budgeted to meet expenses.

Exhibit Q, *Wyoming Statute, Title 18, Chapter 11, Solid Waste Districts* states that solid waste districts are allowed to levy up to 3 mils of property valuation for funding of such a district. Criteria for such funding would require that a vote be held to ask the question if the district could levy such a tax. There is no guarantee that such a tax would be accepted by the Park County citizens. Although this is a funding option, it is one which requires passage by the voting citizens of Park County.

Park County established a solid waste district by resolution on February, 1984. (See Exhibit A4.) Currently, the Park County Commissioners serve as the “directors” of that district with a designated landfill manager. A district may exist without having the ability to levy taxes.

**Available Funds at 3 Mils
Park County**

Year	Property Value	3 Mils
2004-2005	\$524,377,133	\$1,573,131
2005-2006	\$624,820,620	\$1,874,461
2006-2007	\$721,445,601	\$2,164,336
2007-2008	\$779,332,792	\$2,337,998
Average	\$662,494,036	\$1,987,482

If a tax levy is passed by the citizens, all three mills do not have to be levied. It is Peak Environmental's understanding that the levied funds can be used for recycling.

The objective of the use of a property tax for solid waste management services is that property owners support the services. People who rent property or have no rent (i.e., subsidized housing or tourists) see increases in their rent or in goods or services purchased by the property owners passing the tax through to their customers.

9.4.2 Landfill Disposal Fees

A portion of landfill disposal fees could be earmarked for recycling. Since the proposed disposal fee to be implemented in October, 2009, is \$90.00 per ton (up from the current \$60.00 per ton), there will likely be resistance to adding more for recycling to that fee. Park County could evaluate the benefit of using a portion of that for recycling. The cost of the proposed Cody Landfill expansion combined with operational costs of the Powell, Clark, and Meeteetse Landfills (and associated closure costs) will determine the availability, if any, of that \$90.00 per ton for recycling. At this time, it appears to be unlikely that this is a funding source.

Should disposal fees at some point have an earmark for recycling, Peak Environmental suggests that disposal bills (tipping fee bills) list the amount for recycling and the amount for landfilling separately. Citizens who contribute to the recycling income need to be aware that recycling is a separate venture from disposal and better appreciate how both solid waste systems are operated.

As an example of potential funding, a \$5.00 per ton earmark for recycling assuming 27,000 tons disposed (Based on about what is actually charged at the landfill.) would yield about \$135,000 annually. About 36,000 tons are disposed annually in the county. Only about 27,000 tons have an associated disposal fee. The difference in tonnage includes clean-up events sponsored by the municipalities, the ability of city and town residents to dispose at no charge with proof of municipal solid waste collection bills, 5% credit for illegal disposal in city and town dumpsters, 1% credit for grass clippings, and highway, other road, and related clean-ups. Should "disposal at no assigned fee" be eliminated, the total amount earmarked could thus be increased.

The objective of funding recycling by landfill fees results in generators of larger volumes of waste being charged more. Thus the "pay as you throw" concept can encourage larger waste generators to identify diversion and recycling alternatives.

9.4.3 Community Support

The budget in Exhibit G estimates cities' support at about \$50,000 for the City of Powell and \$130,000 for the City of Cody which assumes a charge by the city to both residential and commercial customers. The City of Powell currently charges \$1.50 for residential accounts and other similar fees for commercial accounts. The City of Cody is currently considering a charge of \$1.50 per residential customer per month and \$5.00 per commercial customer per month. Consideration could also be given to approaching the Town of Meeteetse and the private haulers to implement a similar fee for recycling. This method presents a challenge for collecting monies from Meeteetse and rural residents.

The City of Cody could also evaluate the current cost of their recycling operation and direct those funds to PVR. Although this option may present some special legal and financial arrangements, this approach may be more feasible as far as the city's customers are concerned.

Park County could also direct money from their general fund to support PVR.

Business, private citizen, and foundation donations can also be solicited. However, PVR's experience is that this type of funding source offers a small percentage of the operating or capital expenditure budget.

9.4.4 Sales Taxes

Wyoming has a 4% state rate for sales and use tax. Counties may levy up to an additional 3% in local option taxes with voter approval. There are a 1% General Purpose County Optional Tax and a 1% Special Purpose County Option Tax (also known as a capital facilities tax, which is instituted at voter approval for a specific time period). These two optional taxes have been discussed as sources of funding for both recycling and landfill development costs in Park County.

Two other sales and use tax categories which are unlikely to be investigated by Park County for solid waste management purposes include

- The Resort District Tax

This was capped at 1% until July 1, 2007. After that, qualifying resort districts may levy up to an additional 3%. A resort district is an unincorporated town of less than 500 people whose main industry is tourism. The resort district tax is assessed in addition to the sales tax, and is distributed to the resort district board for general purposes. Currently only Teton Village Resort District imposes this tax.

- The Economic Development Tax

It is imposed in quarter percent increments not to exceed a rate of one percent. The economic development tax is a local option tax assessed for the purpose of economic development and business assistance projects. Currently only Goshen County imposes this tax.

A 1% sales tax could be levied on retail sales. In order to implement this tax, the issue must be placed before the voters and the issue must pass. Following is the amount of funds which could be collected.

Available Funds at 1% of Retail Sales

Year	Retail Sales	1%
2007-2008	\$553,219,000	\$5,532,199

The above figures are based on monthly distribution for July 31, 2007, through June 30, 2008, and were calculated for a period during which the capital facilities tax (Special Purpose County Option Tax) was in place. A discussion with a representative of the Wyoming Department of Revenue indicated that this was the best set of numbers to use to arrive at potential available funds. Some tax returns are delayed in receipt by the department since some pay quarterly rather than monthly. Some tax returns would be amended and arrive at various times which may or may not be included in the chosen months. Given other alternatives for selecting figures for this purpose, this selection was the best for the purpose of this ISWMP.

9.4.5 Grants

Grants (those sources commonly known) for a recycling center do not provide sufficient funds to purchase all of the equipment, facility, or other budget items described in the budget proposal in Exhibit G of this document. Although specific benefactors may be identified, those sources are not routinely available. Thus reliable and routine funding mechanisms must be identified and implemented.

Two grant sources listed in Exhibit G (proposed budget) are the Moyer Grant and U. S. Department of Agriculture (USDA).

The Moyer Grant was approved previously, and PVR has reapplied. The status of the Moyer Grant is not yet known, although it is likely that it would be reapproved. The Moyer Grant would be used for building a facility. It does not have a matching fund requirement.

The USDA grant would be for building construction. It requires that PVR spend its own money (such as a loan) before the grant is approved. The amount listed in this budget was an estimate; the USDA allows other amounts to be requested.

9.4.6 Wyoming Business Council, Community Development Block Grants (CDBG)

The CDBG Program is a federally funded pass-through grant program from the U.S. Department of Housing and Urban Development (HUD). The Wyoming Business Council is Wyoming's designated agency for administering the program. The state receives an annual funding allocation ranging between \$2,000,000 and \$4,000,000. Counties are eligible to apply for CDBG funds. There are three funding categories: Public Infrastructure Grants, Access for the Disabled Grants, and Community Facilities Grants. The application process is similar to the other state and federal programs. Applications are sent to the Wyoming Business Council.

9.4.7 Summary

Any of the above described individual sources or combinations of the previously described funding mechanisms can be pursued but success depends on the structure of the recycling organization as described in the beginning of this section. Funding sources should be periodically reevaluated.

9.5 Priorities for Budget and Operational Management

The entire operating budget for a recycling center proposed in this report (in Exhibit G) would not necessarily be required to be available prior to PVR accepting operation of a centralized county recycling operation.

Grants (those sources commonly known) for a recycling center do not provide sufficient funds to purchase all of the equipment, facility, or other budget items described in this proposal. Although specific benefactors may be identified, those sources are not routinely available. Thus reliable and routine funding mechanisms must be identified and implemented.

Following is a proposed priority for the various budget items:

1. Personnel
 - a. The wages and benefits proposed are critical to assembling a staff with relevant experience.
2. Transportation contract
 - a. Since transportation costs can fluctuate significantly at this time, it is important to manage this budget item as much as possible.
3. Equipment
 - a. Equipment items can be prioritized.
 - b. Some equipment can be used (rather than new); but it must be of a quality that is sufficiently reliable to operate the center at maximum efficiency. Many of Wyoming's recycling centers operate with aging equipment which does not meet the long term operational needs of the centers.
 - c. Equipment must be matched to the facility (e.g., overhead, width, and turning clearances).
 - d. Equipment must also be matched to the capacity of the facility (i.e., the tons being recycled).
4. Facility
 - a. The current facility can be used initially when PVR accepts county wide operation. The tons recycled and equipment acquired will determine the facility requirements. Additional research is necessary to lease or construct the best facility and location.

The current PVR board has tentatively defined the services they would be willing to provide with PVR as the managing partner of a county wide recycling program. The following paraphrased summary has been provided as general information, but the action and specific language taken by the PVR board is included in Exhibit G:

- PVR would accept, process, and market all selected materials.
- PVR would not offer collection (and thus transportation) services.
- PVR's daily management would include:
 - Establishing salaries and paying employee salaries.
 - Hiring and firing of employees.
 - Determining which recyclables would be accepted and the price paid for aluminum cans.
 - Determining material sort requirements.
 - Establishing PVR annual budgets.
 - Furnishing and providing equipment and maintenance.
- The PVR center would be open to the public and accept materials from cities, county, and rural solid waste companies. This would include acceptance of materials from outside the Park County.
- PVR would select the facility, be responsible for land and building acquisition, and be responsible for remodeling or additions as necessary.
- PVR would work with Park County to develop adequate funding sources for the operation which includes preparing applications for loans and grants.
- PVR would be the lead organization for public education about PVR and recycling in general. PVR would offer facility tours as appropriate and offer educational booths at public events.
- PVR would reserve the right to enter into contracts with other entities for recycling activities.
- PVR will present quarterly reports.

10.0 INFLUENCING FACTORS FOR SOLID WASTE MANAGEMENT ALTERNATIVES

Factors which affect recycling rates and the capacity of a recycling center are as follows:

1. Space available for storage and handling.
2. Distance to markets.
3. Population served.
4. Support funding for recycling center since market values fluctuate and since Wyoming's centers must receive funding in addition to sale of recyclables in order to operate.
5. Convenience (location of drop-off points, ease of collection if collection service is provided, and hours of operation).
6. Equipment.
 - a. Compatibility of equipment with facility.
 - b. Knowledge of equipment operators.
 - c. Maintenance and repair requirements.
 - d. Age of equipment.
7. Education and awareness about preparation of recyclables and other issues.
8. Customer service and knowledge provided by recycling center.
9. Diversity of materials accepted.

Related to space and equipment available, market value, and staffing requirements.
10. Mandated recycling

Wyoming's legislative and cultural histories are such that only limited mandates exist in the state. Cheyenne's landfill does not accept green waste (i.e., grass clippings, manure, and other yard waste or electronics).

Factors which affect landfill life include:

1. Volume of materials accepted.
2. Daily, intermediate, and final cover space.

The daily cover tends to be the category with the largest potential impact on volume. Cover is the soil or dirt used to cover the waste and which is intended to limit the amount of surface water infiltration (to reduce the potential for leachate impacts), to reduce odors associated with solid waste, to prevent vectors (such as birds and rodents) from becoming a nuisance, and to control blowing or windborne lightweight solid waste (and thus to better control litter). The use of materials such as Posi-Shell™, temporary plastic covers, or plastic covered bales can reduce the space used by daily cover. (Posi-Shell™ is a spray applied, cement-mortar coating for daily and intermediate cover and for erosion and odor control.)
3. Compaction efficiency.
4. Continual evaluation of landfill space used with time.

Surveys combined with estimated weights or volumes by time period allows landfill managers to better estimate how space is being used with time and prepare for the future.

5. Placing large or bulky items in separate locations to better control space used.
 - a. To some degree this is already being done at the Park County landfills by diverting appliances, tree limbs and branches, and dead animals.
 - b. Identifying diversion of large volumes of materials such as concrete and asphalt or debris from building demolition projects can also control space used.
 - c. Use of a construction/demolition debris cell or pit, which is already being used by both the Powell and Cody Landfills.
6. Daily field engineering of operations to improve equipment and equipment operator efficiency.

Factors which affect collection costs include:

1. Distance on route.
2. Volume collected at each customer's site.

The more collected at each site, the fewer stops, and thus the more efficient each trip to the landfill.
3. Collection truck load.

A partial load transported to the landfill will be more costly (in general) than a full load. However, trucks generally cannot be parked overnight or longer to wait for a full load since the weight can create more wear on the truck and can result in nuisance odors and vectors.
4. Efficiency of route.

Aspects of this include turns, time to load and unload (For example, tight spaces can add time.), distance between stops, and distance of route from landfill.
5. Operator.
 - a. Experience.
 - b. Efficiency.
 - c. Wages and benefits.
6. Truck cost.

Truck capacity, compatibility with container, age, purchase cost, and costs for maintenance, repairs, and operation.

Additional factors which would affect the cost of this overall plan and specific elements of it are as follows:

1. Cost of landfilling at other landfills within the state.
2. Willingness of other states or other Wyoming landfills to accept Park County's solid waste and the cost of that disposal.
3. Fuel cost.

This affects the cost not only directly of equipment for collection or transfer, recycling, and disposal but also indirectly affects costs of wages and goods in all sectors of our economy.
4. Market value of recyclables on international and national levels.
5. Regulatory costs for landfills and other segments of the solid waste community.
6. Discovery of new, adverse environmental impacts that result in additional efforts.

11.0 FUNDING SOURCES

11.1 Current Funding Pursuits

For the proposed lateral expansion (lined cell) for the Cody Landfill, about \$4.6 million is necessary for initial site improvements, initial cell construction, and initial equipment expenditures. The Park County Commissioners have authorized diversion of \$778,000 in County Consensus Funds toward initial site improvements, initial cell construction, and initial equipment expenditures at the Cody Landfill. Park County has been granted \$1.7 million from the American Recovery and Reinvestment Act (ARRA) funding pool for the State of Wyoming. The State Land and Investment Board approved this \$1.7 million. About half of the ARRA money or about \$862,316 will be in the form of a loan that has 100% principal forgiveness (essentially a grant) that the county would not be required to pay back. The remainder will be in the form of a loan at 2.5% interest paid back over 20 years. The ARRA funds are for the proposed Cody Landfill liner in the lateral expansion for which a permit application has been submitted to WDEQ. The ARRA funds require that the liner project be under contract by the end of 2009. This remainder (all but about \$650,000) is expected to be funded by the future tipping fees which are proposed to be increased from \$60.00 per ton to \$90.00 per ton in October, 2009. The county is considering a possible diversion in the amount of \$650,000 from Payment in Lieu of Tax (PILT) money towards the project.

11.2 County Consensus Funds

Two years ago the Wyoming Legislature set aside grant funds (mineral royalty grants) to be allocated to the counties for local project funding. The program is administered through the Office of State Lands. These are County Consensus Funds. The consensus in Park County is between the county and the cities of Cody and Powell (the elected officials having jurisdiction over 70% of the population including towns and cities). Cody, Powell, and Park County must agree (come to a consensus) on the allocation of funds among the various political entities: county, cities, and towns. Each entity may then appropriate their share to projects of their choice in their jurisdiction with State Land and Investment Board (SLIB) approval. Typically these funds have been used for infrastructure projects such as streets, roads, sewer systems, and water systems. Special districts may apply for this funding as well. The process begins with an appearance before the county commissioners followed by a written application. The commissioners determine if the applicant will receive funding. As stated previously, the county has authorized temporary diversion of a portion (\$778,000) of their share of the consensus funds towards the planned initial site improvements. The county expects repayment of this loan from the landfill reserves account over time with interest

11.3 Wyoming State Revolving Fund (SRF) Program

The Clean and Drinking Water State Revolving Fund enabling legislation (*W. S. § 16-1-201 through 16-1-307*) requires the Wyoming Department of Environmental Quality (WDEQ) and the Water Development Office (WDO) to oversee loan applications to ensure compliance with regulations. These funds may be allocated for landfill projects to protect groundwater.

A landfill liner and associated facilities are eligible for funding (loan); however the excavation for the pit to be lined is not eligible under SRF guidelines. An environmental review is a prerequisite for the application. The Cody Landfill is presently on the "intended use plan" list which is the first

step towards preparing an application. Loans currently have a 2.5% interest rate. The loan life would typically coincide with the project life.

Park County successfully applied for a \$1.7 million loan for the liner and associated infrastructure. Fortunately at this time, the federal government has made funds available to the state through the American Recovery and Reinvestment Act (ARRA). The SRF has distributed this ARRA funding as applications have been submitted and considered. Park County applied for \$1.7 million, half of which is a loan at 2.5% interest for a term of 20 years. The other half, \$850,000, is an ARRA loan with principal forgiveness, essentially a grant. The ARRA funds require that the liner project be under contract by the end of 2009.

11.4 United States Department of Agriculture, Rural Development (USDA-RD)

Funding for landfills may be available through the USDA-RD under the Water and Waste Disposal Program. These funds could be used for the earthwork to excavate a lined landfill cell. A direct loan may be made to Park County with reimbursement paid from tipping fees. The interest rate presently for Park County is 3.625%. The rate is adjusted quarterly and depends on the local economy -- specifically the median household income compared to the state average. Once a loan is locked in, the prevailing rate at the time of the loan is constant over the life of the loan. Again, an environmental review is necessary along with the other loan application information.

11.5 Joint Powers Act Loan Program (JPA)

The Wyoming legislature established statutory authority for the JPA loan program in 1974. Counties are eligible to apply for the JPA loans that are awarded by the State Land and Investment Board. JPA loans are for facilities that generate revenue with sufficient revenue to service the debt and represent prudent use of state funds. Landfill tipping fees are a source of revenue to service a loan. The current interest rate through December 31, 2008, is 5.31%. There is a 1% loan origination fee. Applications are reviewed by the Office of State Lands and Investments.

11.6 Wyoming Business Council, Community Development Block Grants (CDBG)

The CDBG Program is a federally funded pass-through grant program from the U.S. Department of Housing and Urban Development (HUD). The Wyoming Business Council is Wyoming's designated agency for administering the program. The state receives an annual funding allocation ranging between \$2 million and \$4 million. Counties are eligible to apply for CDBG funds. There are three funding categories: Public Infrastructure Grants, Access for the Disabled Grants, and Community Facilities Grants. The application process is similar to the other state and federal programs. Applications are sent to the Wyoming Business Council.

11.7 Solid Waste District, Property Tax Funding

The Park County Landfills currently function as an enterprise fund which means that landfill receipts are budgeted to meet expenses.

A copy of the *Wyoming Statute, Title 18, Chapter 11, Solid Waste Districts* is included as Exhibit Q. Solid waste districts are allowed to levy up to 3 mils of property valuation for funding of such a district. Criteria for such funding would require that a vote be held to ask the question if the district could levy such a tax. There is no guarantee that such a tax would be accepted by the Park County

citizens. Although this is a funding option, it is one which requires passage by the voting citizens of Park County.

Park County established a solid waste district by resolution on February, 1984. Currently, the Park County Commissioners serve as the “directors” of that district with a designated landfill manager. A district may exist without having the ability to levy taxes. (See Exhibit Q, 18-11-103. *taxation; limitation.*)

Available Funds at 3 Mils

Year	Property Value	3 Mils
2004-2005	\$524,377,133	\$1,573,131
2005-2006	\$624,820,620	\$1,874,461
2006-2007	\$721,445,601	\$2,164,336
2007-2008	\$779,332,792	\$2,337,998
Average	\$662,494,036	\$1,987,482

11.8 Sales Taxes

Wyoming has a 4% state rate for sales and use tax. Counties may levy up to an additional 3% in local option taxes with voter approval. There are a 1% General Purpose County Optional Tax and a 1% Special Purpose County Option Tax (also known as a capital facilities tax, which is instituted at voter approval for a specific time period). These two optional taxes have been discussed as sources of funding for both recycling and landfill development costs in Park County.

Two other sales and use tax categories which are unlikely to be investigated by Park County for solid waste management purposes include:

- The Resort District Tax

This was capped at 1% until July 1, 2007. After that, qualifying resort districts may levy up to an additional 3%. A resort district is an unincorporated town of less than 500 people whose main industry is tourism. The resort district tax is assessed in addition to the sales tax and is distributed to the resort district board for general purposes. Currently only Teton Village Resort District imposes this tax.

- The Economic Development Tax

It is imposed in quarter percent increments not to exceed a rate of one percent. The economic development tax is a local option tax assessed for the purpose of economic development and business assistance projects. Currently only Goshen County imposes this tax.

A 1% sales tax could be levied on retail sales. In order to implement this tax, the issue must be placed before the voters and the issue must pass. Following is the amount of funds which could be collected.

Available Funds at 1% of Retail Sales

Year	Retail Sales	1%
2007-2008	\$553,219,000	\$5,532,199

The above figures are based on monthly distribution for July 31, 2007, through June 30, 2008, and were calculated for a period during which the capital facilities tax (Special Purpose County Option Tax) was in place. A discussion with a representative of the Wyoming Department of Revenue indicated that this was the best set of numbers to use to arrive at potential available funds. Some tax returns are delayed in receipt by the department since some pay quarterly rather than monthly. Some tax returns would be amended and arrive at various times which may or may not be included in the chosen months. Given other alternatives for selecting figures for this purpose, this selection was the best for the purpose of this ISWMP.

11.9 Payment in Lieu of Tax (PILT)

Given the above discussion of above described funding sources and the budget of \$4.6 million for the proposed Cody Landfill expansion, about \$2.1 million remains to be assigned. The county is considering other options to fund the remaining cost deficit including a possible diversion of Payment in Lieu of Tax (PILT) money towards the project.

Forty-nine percent of Wyoming land is owned and managed by the federal government. Federal lands are not subject to property taxes that support county governments and education. However, local communities play an important role in supporting the management of federal lands.

The procedure used to calculate PILT payments is a function of federal revenues, revenue sharing, and population. For a detailed explanation, see University of Wyoming Cooperative Extension Service Bulletin B-1055 at <http://agecon.uwyo.edu/EconDev/pubs.htm>.

PILT payments are based on three factors:

- Eligible federal acres in the county
- Federal revenue sharing going to the county in the prior year
- County population up to a pre-determined ceiling

12.0 PARK COUNTY INTEGRATED REGIONAL SOLID WASTE PLANNING SUMMARY

The planning process has resulted in evaluation of reasonable alternatives as presented in the narrative of this plan and with Tables 1 – 6. Cost considerations at this time illustrate that using Park County Landfills is a more cost effective alternative than transporting waste out of the county. The cost summaries are provided not only for near term planning but also for longer term planning so that all involved entities can continue to evaluate options as market prices for collection, transport, recycling, and disposal change.

The timeline in Exhibit D illustrates approximate time periods for landfill planning which will significantly influence collection, transport, and recycling. The Cities of Cody and Powell, the Town of Meeteetse, and Powell Valley Recycling are currently involved in development of a centralized recycling operation for both Park County and surrounding areas. No timeline (other than what drives the process and what is included in Exhibit D) has been developed for recycling. The existing recycling operations will continue. The planning process for consolidation and expansion of the county wide recycling is at a point where a larger facility must be identified; thus there are a number of funding factors which will determine scheduling.

The collection services offered in the county will continue. Since no significant changes to the current operations are anticipated, no timeline for collection has been developed. However, it is anticipated that the proposed increase in Park County landfill fees (in October, 2009) will result in some modifications.

Consideration has been given to construction of a transfer station at the Powell Landfill. The proforma in Exhibit L provides a cost summary. Both the Park County Commissioners and City of Powell (along with affected citizens) have discussed this option. Again, no timeline for such a facility has been developed. It is expected that both the county and City of Powell will further investigate the feasibility and cost of a transfer station.

Closure of some or all landfills has been considered. Table 5 illustrates closure costs of the four individual landfills. Closure of a landfill, by regulation, requires that closure activities be completed within 18 months. Thus closure of more than one landfill in Park County presents challenges with costs, personnel, equipment, and associated consulting services. This closure cost combined with the planned lining of the Cody Landfill (construction must be under contract in 2009) makes cash flow and other operational aspects an issue for the county.

In addition to the reasonable alternatives listed in this ISWMP, several additional alternatives (such as waste to energy and material recovery facilities), were discussed in section 8.0 Alternatives and Cost Analyses.

12.1 Public Involvement

Park County has involved the public on multiple levels during this planning process. In addition to formal public meetings, questions and comments have been provided to members of the Park County Landfill staff and Peak Environmental and its supporting consultants. Additionally, the Park County Commissioners, City of Powell, City of Cody, Town of Meeteetse, Powell Valley Recycling, Clark Resource Council, news media, private enterprise, and government agencies have fielded questions and comments from their constituents and staff which have been directed to the authors of this ISWMP.

Listed below are dates of meetings which were held for development of this ISWMP. All meetings involve aspects of the Park County Integrated Solid Waste Management Plan. Early on, the notices were sent to Big Horn Basin contacts in addition to Park County contacts. An extensive contact list of more than 60 people has been maintained by the Park County Landfills office in order to provide information and notices of meetings. Additionally, the county maintains a contact list for all commissioners' meetings (including work sessions or informational meetings) which results in hundreds of people being contacted about such meetings. Unless stated otherwise, meetings involved landfill disposal, transfer, transportation, collection of solid waste, and other related issues. Exhibit T includes agendas and/or minutes from the following meetings except as otherwise noted:

December 7, 2005
 November 15, 2006
 February 14 - 16, 2007
 January 17, 2008
 January 23, 2008
 August 20, 2008
 September 23, 2008
 October 30, 2008
 January 30, 2009, Area Recycling Meeting
 February 13, 2009, Area Recycling Meeting
 February 26, 2009, Area Recycling Meeting
 March 18, 2009, Contract negotiations between Park County and haulers
 (City of Cody, City of Powell, and Keele Sanitation), Currently in progress
 with contracts being documents of completion
 May 15, 2009, Area Recycling Meeting
 June 10, 2009

Comments have been received regarding many aspects of the style and detail of this ISWMP. Those comments have been considered and many incorporated. Following are most of the significant questions and/or comments which have been points of discussion and explanations of how this document has addressed them:

1. There was a request to explain various factors which can result in cost changes to various aspects of the plan. This may also be termed a sensitivity analysis. The ISWMP includes section 10.0 Influencing Factors for Solid Waste Management Alternatives.

2. Requests were made to include a glossary of terms related to the ISWMP. The ISWMP has a Solid Waste Terminology section as Exhibit A.
3. Requests were made to revise the “future costs tables” to include more explanation about the basis of costs. See Tables 1 - 6. More detail has been included to allow future evaluations to better develop cost comparisons.
4. Inquiries were made in regards to the capacity of the current Cody Landfill and future phases of lined cells of the Cody Landfill. Requests were made to separate “life” for both municipal solid waste and construction/demolition waste. These questions arose during both public meetings and general discussions. Table 1 now includes such information.
5. One specific question was whether rail was an option for transfer of waste to the Casper Balefill. This issue has been addressed in section 7.13 Disposal at Existing Area Landfills.
6. Inquiries have been made regarding the volume of recyclables that could realistically be collected. Recycling percentages and volumes are discussed in section 9.0 Current and Future Recycling and Diversion.
7. A request was made to investigate costs and types of equipment necessary for bear-proof containers for recyclables at the Clark Landfill. Section 9.2.2.1 Bear-Resistant Recycling Containers has been added.
8. A request was made by a Park County Commissioner to evaluate the West Yellowstone Compost Facility and Transfer Station in West Yellowstone, Montana. Section 8.5 Municipal Solid Waste (MSW) Composting includes a narrative of that evaluation.
9. Requests were made to include expanded histories of both solid waste disposal and recycling in Park County. Those have been added to sections 2.0 Park County Solid Waste History.
10. An inquiry was made regarding how an average Park County household’s monthly residential collection and disposal fee would be affected by increases in landfill tipping fees. Table 6 was developed as a response to this. That table has undergone several revisions to reflect different tipping fees. It should be noted that this table reflects residential fees only and does not evaluate impact on commercial fees. Since commercial accounts in all of Park County’s communities are charged based on container size and frequency of collection, the number of variables makes commercial cost comparisons more problematic. Furthermore, the intent, based on questions asked, was to determine the approximate financial impact on the “average” residential customer in Park County.
11. Questions regarding costs and types of other rural solid waste management systems have arisen during public meetings and general discussions. The August 20, 2008, version of the economic analysis for Park County included cost comparisons for Johnson County, Wyoming. Although this information was helpful to some involved with the planning process, it was found to not be as helpful to the current version.

12. During both public meetings and general discussions, the issue of closure of one or more landfills has been a topic. The questions are in regards to cost of closure and post-closure and to time frame of closure. Section 7.14, Closure of Park County Landfills discusses both of these aspects. The Meeteetse Landfill will be closing within about a year, but a larger concern is the cumulative financial and public burden of closing multiple landfills within a relatively short time period.

13. The Town of Meeteetse requested that the option of using a facility other than the Cody Landfill and the current Meeteetse Landfill not be pursued. The August 20, 2008, document included an evaluation of Meeteetse hauling MSW to Worland, and that option has been removed.

14. The Town of Meeteetse also requested that recycling options be evaluated. Several options have been considered with the most recent (Exhibit N) considering bear-resistant recycling trailers and cost of a pick-up truck and driver for transporting recyclables to Powell Valley Recycling in Powell.

15. Residents of Clark also requested that recycling options at the Clark Landfill be considered. This ISWMP includes more details regarding the cost of recycling trailers and transport of materials to a center. Exhibits G and O and section 9.2.2.1 Bear-Resistant Recycling Containers further address this.

16. The planning process for a centralized recycling operation for all of Park County and the surrounding area is actively being pursued. A May 15, 2009, meeting was held with recycling entities in Powell, Wyoming, and a report for that meeting was developed. A copy of that is included as a separate document for this ISWMP. The majority of that document has been included in this ISWMP in appropriate sections. That recycling document is undergoing some minor revisions. Several objectives of that document were to summarize current and future operations, develop an operating budget, and serve as a business plan for acquisition of funds and/or capital items. Obviously, this document was a result of a cumulative effort as a result of many public meetings and informal discussions.

17. Questions regarding several categories of special wastes (used oil, vehicle batteries, compost materials, scrap metal and white goods (appliances), electronics waste, household hazardous waste, construction and demolition waste, and tires) have been posed. This final ISWMP addresses each in more detail.

18. Questions regarding the value of facilities such as waste to energy operations, material recovery facilities, and balers arose during public meetings. Section 8.0 Other Waste Management Alternatives and Cost Evaluations was added to the ISWMP to address several of these facilities.

19. Consideration of a new, unsited, unpermitted landfill was requested. That has been addressed in section 7.12 New, Unsited, Unpermitted Landfill.

20. A request was made to investigate if solid waste could be disposed at area landfills (such as in Montana or the Washakie County Solid Waste Disposal District #1). Section 7.13 Disposal at Existing Area Landfills discusses the results.
21. A request was made to include a section on future tasks and objectives specifically for recycling, diversion, and landfill management. One recommendation was that a solid waste management advisory council be formed to further the objectives of the ISMWP.
22. The Town of Meeteetse requested that additional information be provided regarding privatizing their solid waste collection services. Information was added to section 4.0 Solid Waste Collection. Additionally, Web sites with municipal contracts for private haulers were provided to the town.
23. Additional details for the City of Cody's recycling program and solid waste collection services were added.
24. Additional objectives for an advisory council for solid waste advisory council were added.
25. Additional explanations about adjusting landfill tipping fees to compensate for added transportation costs for areas other than Cody were provided.

12.2 Summary and Future Tasks for Recycling and Diversion

The letter of agreement signed by the City of Powell, City of Cody, Park County, and PVR (in Exhibit G) shows a commitment to centralize recycling programs and to continue to offer services not offered by the commercial, private sector.

The fact that PVR and the City of Cody are at capacity at each recycling facility illustrates a demand on the part of the public for such services. The progression toward centralization combined with demand shows a need for an infusion of financial resources. Preparation of the budget in Exhibit G is a preliminary step to identifying services to be provided by various entities and funding sources.

Future tasks include the following:

- A. Consideration of a name change for PVR (as managing partner) to a name which reflects their expanded service area.
- B. Identification of land and development of facility plans (either new or remodeled) to meet the needs of a greater volume of recyclables.
- C. Assignment of services to various entities including transportation of recyclables from collection points to a central recycling center.
- D. Coordination with Park County Landfills, municipal entities, contractors, and others to develop systems for diversion and reduction of solid waste streams.
- E. Continued public education efforts for recycling, diversion, and reduction of solid waste.
- F. Establish goals for recycling and/or diversion rates for various commodities as appropriate.
- G. Identify markets for glass. The Cody Landfill is likely to cease acceptance of glass as part of its daily cover in the near future. The Cody Landfill will soon begin to use Posi-Shell™ (a spray applied, cement-mortar coating for daily and intermediate cover and for erosion and odor control.)

Due to the number of participants in this planning process and the number of variables in the planning process, no timetable has been developed for the above tasks. However, the Development Timeline for Park County Landfills in Exhibit D will serve as a driving force for related recycling program tasks. Additionally, the proposed Park County landfill fee increase (to \$90.00 in October, 2009) will influence the rate at which a centralized recycling program for Park County comes to fruition.

Future recycling rates of about 15% of traditional recyclables are likely to be achieved given the experience of the recycling staffs. Consideration should be given to establishing recycling rates at greater percentages with target dates and methods for achieving such rates. Traditional recyclables (paper products, aluminum, tin (steel) cans, glass, and plastics) should be distinguished from other recyclables (such as green waste and other, larger scrap metal items) in order to more accurately monitor recycling rates.

There should continue to be efforts for full cost accounting of recycling programs to allow managers and funding groups to evaluate how efforts and monies are expended, to improve system efficiency, to maximize volumes recycled, and to best meet citizens' and markets' needs. Consideration of accounting by cost and "effort" (such as personnel time, space, and other factors) by community or commodity (or other factors) can further develop system and staffing efficiency. Powell Valley Recycling has been evaluating various "effort" categories within about the past three years; this has enabled them to better facilitate their services.

At this time, an informal group of recyclers has been formed in Park County. Continued cooperation and support of this group will allow for more well established and financially secure

recycling organizations. The structure of this group should be maintained as much as possible as centralized recycling plans move forward for Park County.

12.3 Solid Waste Management Planning to Date

Park County has achieved several significant tasks which further this ISWMP. The residents, businesses, elected and appointed officials, and non-profit organizations have coordinated efforts, negotiated on several issues, and developed agreements that will enable Park County to better manage its waste for at least the 20 year period put forth in WDEQ's requirements for solid waste planning.

This document and the individuals involved with its development have more tools and skills with which to annually evaluate solid waste planning for both Park County and the region.

Following are several of the key achievements of Park County during this process:

1. Developed stronger relationships among those interested in recycling and diversion. The agreement signed by the City of Powell, City of Cody, Park County, and Powell Valley Recycling will result in a more centralized recycling operation for the entire region.
2. For the Cody Landfill, obtained land, developed design, costs, and new operational systems, and submitted 2008 permit renewal application to extend the life of the Cody Landfill. This includes preliminary designs (soon to be construction designs) for a lined cell and associated features at the Cody Landfill. Submitted a permit application for this lateral expansion of the landfill with the lined cells. Revised operational systems (such as scale installation and the Posi-Shell™-- a cover system that will save life and cost) to better manage costs. Many aspects of this planning are also intended to better manage potential environmental conditions.
3. Proceeded with contract negotiations for proposed Park County landfill fees.
4. Evaluated a variety of collection, transport, transfer, disposal (in and out of county), recycling, and diversion options with those most reasonable and selected being included in this ISWMP.
5. Increased public awareness of solid waste issues.

12.4 General Accomplishments of Park County's ISWMP

This ISWMP project has evaluated economic, service, regulatory, and logistical aspects of managing solid waste for Park County and surrounding areas. Management of solid waste involves four major components:

1. Generation of solid waste
2. Reduction of solid waste disposed (by decreasing amount generated, reuse, diversion, and recycling)
3. Collection, transport, and transfer
4. Disposal (landfill, composting, treatment, or energy conversion)

The cost and selected methods for any of those four general items influence the others. Thus conclusions developed from this ISWMP are expected to be adjusted as the ISWMP continues to be implemented.

Disposal options within and outside the county and various disposal methods were considered. The bases for the reasonable and selected options (cost and other factors) have been provided so that future evaluations of this ISWMP can adjust variables (such as transportation costs) as necessary in the future.

Transportation and transfer options (for transportation means and development of transfer stations) were considered. Transportation and transfer costs were evaluated in conjunction with disposal options.

Adjustments to collection methods were considered more for recyclables than for other solid waste. The municipalities' (Cody, Powell, and private haulers) current collection systems do not currently appear to be at a reasonable point of reconsideration due, in part, to their current capital investments. Meeteetse is considering privatizing their solid waste collection and transport system due to the age of the truck that the town uses for collection and the added distance the truck will have to drive from Meeteetse to the Cody Landfill since the Meeteetse Landfill may close in the near future.

Reduction of solid waste by diversion and reuse (primarily for composting of green waste and C&D waste) was discussed and evaluated. Diversion of these categories of solid waste is expected to continue to increase as the increased landfill disposal cost affects disposal habits. Other incentives may include diversion goals for C&D waste by incorporating goals into contractual obligations or local ordinances. The quality of such diverted waste and associated rehandling and transportation cost (to the end user) will affect diversion rates.

The reduction of any category of solid waste can be pursued at the point of generation. Objectives can include the following:

1. Never overuse or buy more than needed.
2. Use alternative materials which may use fewer natural resources, have a greater impact on long term natural resources (such as more energy efficient products), or result in less total solid waste being generated.
3. Buy products with less packaging.

4. Eliminate unnecessary items.
5. Use supplies, materials, and equipment more efficiently.
6. Use more durable equipment and supplies when possible.

The use of all natural resources and impact on environmental quality should be considered when implementing any change to a solid waste management program. Since any specific task of an ISWMP can involve a long list of environmental variables, this ISWMP has had only a limited ability to consider overall natural resource and environmental impact issues with the selected ISWMP alternatives.

Both the EPA and WDEQ have an extensive library of information resources on their Web sites for the management of municipal solid waste, construction and demolition waste, and hazardous waste.

Park County has developed this ISWMP with sufficient background details and public participation/education so that it may continue to provide solid waste services to both Park County and surrounding areas. Future evaluations of this ISWMP will be necessary as solid waste services and needs change throughout the region. Park County is considered the local governmental entity responsible for preparing this integrated solid waste management plan since it is the permitted operator of the solid waste disposal facilities serving the planning area (Park County). This was established by Wyoming legislation *W. S. 35-11-521 and 35-11-522 and 35-11-1901 through 35-11-1904*. In that role the Park County Commissioners should continue to spearhead efforts for solid waste management in Park County and the surrounding areas as future needs may dictate.

12.5 Future Solid Waste Management Objectives

Specific objectives of this integrated solid waste management plan are:

- 1. Permit the Cody Landfill as a lined facility for accepting municipal solid waste from all of Park County and surrounding areas (regional landfill). The permit application has been submitted to WDEQ. The first review by WDEQ has been received by Park County with responses currently being prepared.**
- 2. Continue to accept construction and demolition debris (C&D) in unlined cells at the Cody, Powell, Meeteetse, and Clark Landfills until permit expiration or renewal at each. Meeteetse is scheduled to close to MSW and C&D on June 30, 2010.**
- 3. Consider closure of the Powell Landfill to MSW and continue evaluation of transportation and transfer services for Powell area residents.**

4. Continue to provide ancillary services at the Cody, Powell, Meetetse, and Clark Landfills until permit expiration or renewal. Services include acceptance of:

- used oil (which is recycled),
- vehicle batteries (which are recycled),
- scrap metal and white goods for recycling, and
- green waste (e.g., leaves, grass clippings, brush, manure, and tree limbs) for use as cover, composting (with dead animals at Cody and Powell Landfills), or burning of clean wood (at all four landfills as conditions allow under an active smoke management permit issued by the WDEQ).

5. Maintain compliance with local, state, and federal regulations by solid waste management entities.

6. Implement measures to minimize and prevent illegal dumping. Increased disposal costs may result in increased illegal dumping. Law enforcement, state, federal, regional, county, and other government agencies (such as Park County Commissioners, municipal councils, Wyoming Department of Game and Fish, BLM, and Park County Road and Bridge), and government attorneys must work together to take action when such events are identified. It is critical that representatives from these three groups commit and follow through on efforts to prevent illegal dumping and hold identified offenders responsible.

7. Develop a centralized recycling operation for Park County and surrounding areas,

8. Coordinate efforts by county, municipalities, and private or non-profit recyclers to increase diversion of waste streams and offer recycling services in areas currently with limited opportunities.

9. Continue current solid waste collection services by municipalities and private haulers with efforts to identify increased cost efficiencies.

10. Annually evaluate cost and operational accounting for every entity providing solid waste management services with consideration of multi-year planning and landfill permit time periods considered.

11. Continue current educational and informational programs and expand such programs as funding and staffing requirements allow. A copy of *A Summary of Public Education Programs for Implementation of Integrated Solid Waste Management Plans* prepared by Peak Environmental has been included as Exhibit U.

12. Create a solid waste management advisory council to further the above services.