



## Project Planning: Attachment B Project Development Form

This form is to be used to document project planning and approval in order to assure that: project options are well-considered; the best option is put forward; initial and continuing costs and funding are addressed; and that Council approval has been given for implementation. Use this project scoping form with the Project Planning and Approval Process Flow Chart.

Answer the questions that pertain to your proposed project. Attach additional narrative pages if necessary. Type in the electronic form using as much space as you feel is necessary.

### Part 1. Project Identification

Name of project: **New Main Building**

Department: **Disposal & Recycling Center (DRC)**

Contact: **Paul Berry**

E-mail: **dumpmaster@gustavus-ak.gov**

Phone **907-697-2118**

**Part 2. Project Scope** refers to a project's size, goals, and requirements. It identifies what the project is supposed to accomplish and the estimated budget (of time and money) necessary to achieve these goals. Changes in scope will need Council approval.

1. What is the project?

**To construct a new 6,000 square feet main building for DRC operations.**

1. What are its goals and objectives?

**The goal of the project is to provide the DRC with new main building. The current DRC main building has two critical shortcomings:**

- 1. It is too small to be able to properly accommodate the amount of waste throughput on a daily or weekly basis. It is also too small to house the proper equipment needed to effectively process the community's waste stream.**
- 2. It was not constructed to allow the full use of powered equipment, such as a small loader or forklift, within the building. Evidence for this is a lack of concrete push walls, active ventilation, or metal clad barrier posts beside drive through openings.**

**The objectives will be as follows:**

- 1. Complete the preliminary design and cost estimate for the building**
- 2. Obtain funding**
- 3. Create, advertise and award the construction bid documents**
- 4. Support the construction process**

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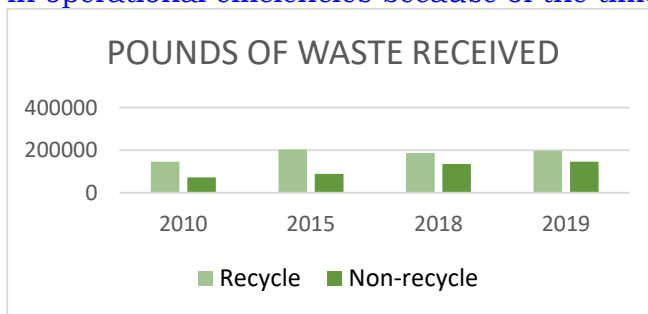
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5. Install necessary infrastructure such as 3-phase power to support a new baler and other processing equipment

- Who/what will be aided by this project? Who are the targeted stakeholders/customers?  
The community of Gustavus, the customer, will see the most benefit. As demand for DRC services increases, there is need for equipment sized appropriately for that increase in demand. DRC Operator(s) will also benefit because they will be able to do their job without the safety risks created by a crowded work area where the public and the DRC staff share the same work area.
- Is a preliminary survey necessary to identify the number of potential customers/users?  
How will you design and conduct the survey?  
No. The DRC already has an established service.
- What is NOT covered by this project? What are its boundaries?  
This project is for the main building only, there will be additional projects for the machinery that will be housed within the new building.

2. Why is the project needed?

- What community problem, need, or opportunity will it address?  
**Recycling** is the cornerstone of the City's Disposal & Recycling Center operation. With aggressive recycling the DRC is able to extend the useful life of the MSW landfill (referred to as the "mound"), and conserve resources. Effective recycling takes a dedicated area and dedicated equipment to be successful. The DRC operation has need for improving public safety, operator safety and operator efficiency by maximizing the separation of the public and DRC Operator work areas. Further the DRC needs a sufficiently sized baler to compress recyclables for transport or compress non-recyclable trash for disposal in the mound. Equipment needs an adequately sized work area for safe operation and maintenance.  
Further, a building with a concrete pushwall is needed to allow greater material throughput by allowing the operator able to collect materials with a loader bucket and transport those materials to the in-feed hopper of processing equipment such as a baler. Currently all equipment at the DRC has to be hand-fed which is much slower and results in operational inefficiencies because of the time involved.



**Growth** Over time the volume of material delivered at the DRC has increased. Also, the forecast for growth indicates significant demand on the DRC services. As population increases (full-time, seasonal, business, and visitors), so will solid waste, and therefore the services of the DRC.

Growth of full-time residents have been steady, sitting between 442-425 until 2015. However, between 2015 and 2018 there has been a spike in growth to 554<sup>1</sup>. Explanation of the recent growth does not appear to be attributed to any single trend; it is likely that the growth is the result of multiple factors. Using traditional methods of forecasting population growth is difficult given the economic climate of the national, state, and local inconsistencies of the economy. In addition, there are variables of growth that will likely determine the growth curve in the next few years. For example, the Front-country Plan of the Glacier Bay National Park and Preserve (Park) could have a significant impact to both population growth and solid waste demand.

Solid waste in Gustavus has been steady since 2010. From 2008 to 2015 there was a small increase in the amount of material delivered to the DRC. However, in 2018 and 2019 there was a significant proportional increase in non-recyclable material. Although there are several possible explanations, there has not been an event or development trend that would clearly identify the growth.

Forecasting difficulty is similar for solid waste. Possible explanations for the trend may include the growth in population. It is not clear if the AMHS has played a role in the trend but the arrival of the ferry in 2010 does show a correlation between its service to Gustavus and an increase in both population and pounds of waste received.

Forecasting Increase of Solid Waste: A typical practice of forecasting would be to take the average of yearly growth and apply it to each of the forecasted years. The Pounds of Waste Received graph above uses dates significant to recent growth in waste volume. For example, the Alaska Marine Highway System started in Gustavus in late 2010 so that date was selected for a baseline. 2015 was selected as a 5-yr period that provided a period of data with consistent population growth. 2018 and 2019 were selected because they provide recent data. Using this data, the average increase in the pounds of waste increases approximately 6% for non-recycled waste and 1.5% per year for recycled waste. Below is a calculation for growth over the next 10-years. However, given the inconsistency with variables that could impact results, the forecast is provided given some uncertainty.

NON-RECYCLE										
2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
154,692	163,788	173,419	183,616	194,413	205,845	217,949	230,765	244,335	258,702	273,914
RECYCLE										
2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
197,197	200,020	202,884	205,789	208,735	211,723	214,755	217,829	220,948	224,111	227,320

Although the forecast may have a low degree of confidence, the realization is that solid waste, both recyclable and non-recyclable, will continue to increase. It may not be at the

1 DCCED Certified Population Counts <https://dcra-cdo-dcced.opendata.arcgis.com/datasets/dcced-certified-population-counts-all-locations/data?geometry=-135.78%2C58.409%2C-135.698%2C58.417&orderBy=Population&selectedAttribute=Population>

volume identified by the forecast but the fact that it will increase substantially over the 10-year window requires that actions be taken to assure viability.

The City recognizes that expansion of the DRC is inevitable to keep pace with growth of the community. There continues to be a small percentage of residents that don't utilize the DRC and it is likely that refuse is either burned or buried on-site. Avoiding illegal dumping and undesirable impacts to adjacent properties are factors to be addressed when considering expansion.

Additionally, the DRC can look to income-producing uses of landfill items. For example, investing in machinery, such as a shredder and briquette maker would provide for the processing of cardboard and other select materials into a form of fuel that could be used in local wood stoves for heat and lowering heating costs. Additionally such equipment could be used in the production of building products such as decking, made of waste plastic. The investments would also assist in disposing materials that cannot be recycled or reused. For example, the shredder would densify wastes that are otherwise landfilled such as rigid plastics or treated lumber.

- What health, safety, environmental, compliance, infrastructure, or economic problems or opportunities does it address?  
The public safety considerations of the operations within the main building were illustrated above. It is very important to separate public use areas and operator use areas.

3. Where did the idea for this project originate? (Public comments, Council direction, committee work?)

DRC Manager/ Operator Paul Berry.

4. Is this project part of a larger plan? (For example, the Gustavus Community Strategic Plan, or committee Annual Work Plan?)

This project is part of the DRC's General Operations Plan on file with the Alaska Department of Environmental Conservation's Solid Waste Program. This project is also a component of the City's annual Capital Improvement Plan document.

5. What is your timeline for project planning?

- By when do you hope to implement the project?  
Because funding has not yet been secured, it is not known exactly when construction of the project will begin. However, the following timeline is useful for gauging the length of the project:
  - 3-6 months for geotechnical survey and the drafting of architectural documents
  - 1-2 months for creation of construction bidding documents
  - 6-8 months for construction
- Will the planning or final project occur in phases or stages?  
Addressed above.

6. What is your budget for the planning process? Will you be using a consultant?

The City has appropriated \$30,000 for the drafting of conceptual documents for the project – visual diagrams, a project narrative and a cost estimate. The City has hired PND Engineers of Juneau, Alaska as a consultant on the project.

7. What is your rough estimate of the total cost of the planning and final product? At the least, please list cost categories. See Part 4. (Ques. 4-8) and Part 5 (Budget) for guidance.

Pre-Engineered Metal building (60' x 100') \$254 sq ft	\$1,524,000.00
Entrance Canopy (30' x 60') \$260 sq ft	\$468,000.00
Mobilization, foundation materials, other expense categories	\$981,800.00
Modifications to existing building	\$85,000.00
Water well and waste water septic system	\$135,000.00
<b>Estimated construction bid price</b>	<b>\$3,193,800.00</b>
Architectural plans & Final Engineering 5%	\$159,690.00
Contingency 15%	\$479,070.00
<b>Total</b>	<b>\$3,832,560.00</b>

### Parts 3 - 6. Project Investigation and Development

Parts 3.—6. refer to social, environmental, and financial impacts of various options. These questions will help you document your consideration of alternatives and your choice of the option providing the best value for the community. Your goal is to generate alternatives and make a recommendation from among them. Return to Part 3., “Summary” after applying Parts 4.—6.

#### Summary:

1. What alternative approaches or solutions were considered? Make a business case for your top two or three options by discussing how effectively each would fulfill the project goals, and by comparing the economic, social, and environmental costs vs. benefits of each one.

The alternatives chosen are as follows:

Do nothing – this is not sustainable and could lead to accidents and injury, failure to execute the purpose of the DRC, operational inefficiency ultimately costing more money to operate.

Execute the proposal – execute planning for future use and current sustainability.

Expand the existing building – This approach only reduces the cost of the building, the existing building would need upgraded for the use of powered equipment and would not be suitable to contain a concrete push-wall. This “band-aid” approach does not address the long-term need, nor would it provide for an effective and efficient processing of solid waste.

2. What solution was chosen as the best and why is it the best?

The proposal provides for a long-term solution to the necessary space for the next 20 – 50 years. The DRC is a regional and state example of recycling and solid waste disposal for rural communities because of the years of developing environmental best practices.

Perhaps more importantly, with the National Park’s Front-country plan going into action in the next few years and the project growth as discussed above, the DRC needs significant improvement to address the demand. Safety of patrons and operators should not be ignored as the increase in the volume of materials flowing through the building will result in more safety concerns with the safety of the public being in conflict with the needs of the operator(s) in moving and processing material.

3. Identify your funding source(s).

- How will the project be funded initially, and for its operating life?

A Grant or grants will be pursued for building construction.

Operating cost is designed to be low as the building will be unheated and constructed of durable materials. Operating costs would be covered by DRC’s operating budget.

- Is there a matching fund requirement? Please provide details.

Not known at this time.

## Part 4. Environmental, Social, Financial Impacts

### 1. Project Impacts Checklist

Will this project affect:	No	Yes (+/-)	Maybe
<b>Environmental quality?</b> (+ = impact is beneficial; - = harmful)			
• Climate change			+
• Streams/groundwater quality	x		
• Air quality	x		
• Soils/land quality	x		
• Fish/wildlife habitat, populations	x		
• Plant Resources (timber, firewood, berries, etc)	x		
• Invasive or pest species	x		
• Natural beauty of landscape or neighborhoods		-	
• Neighborhood character		-	
• Noise or other environmental impacts		-	

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• Environmental sustainability		+	
• Hazardous substances use	X		
• Community waste stream		+	
• Light pollution at night	X		
<b>Recreational opportunities?</b>			
• Public land use and access	X		
• Trails/waterways	X		
• Parks	X		
• Public assembly/activities	X		
<b>Education/training/knowledge &amp; skill development?</b>		+	
<b>Public safety?</b>		+	
<b>Public health?</b>		+	
<b>Medical services?</b>	X		
<b>Emergency response?</b>	X		
<b>Economic performance &amp; sustainability?</b>			
• Employment of residents		+	
○ Short-term (i.e. construction)		+	
○ Long-term (operating and maintenance)	X		
• Cost of living reduction		+	
• Return on investment		+	
• Visitor opportunities/impressions/stays/purchases		+	
• Competitive business environment	X		
• Support for existing businesses		+	
• New business opportunities		+	
• Economic sustainability		+	
• Attractiveness of City to new residents/businesses		+	
<b>City government performance?</b>			
• Infrastructure quality/effectiveness/reach (more people)		+	
• Existing services		+	
• New services		+	
• Cost of City services		-	
• Tax income to City	X		
<b>Transportation?</b>			
• Air	X		
• Water	X		
• Roads	X		
<b>Communications?</b>			
• Internet	X		
• Phone	X		
• TV/radio	X		
<b>Other? (type in)</b>			



2. How does this project provide benefits or add value in multiple areas? (E.g., benefits both to the environment and to business performance.)

The “Maybe” indicators of the above Table reflect the benefits of the project. If the DRC operating model doesn’t change to accommodate the increased demand, community members may choose to dispose of solid waste in a non-environmentally sustainable way such as discarding waste in the woods or along trails (currently happening); burying materials on-site of their homes/businesses (currently happening); burning trash in pits or barrels (currently happening). These alternative methods do not reflect well on Gustavus and likely have negative environmental impacts.

3. Are other projects related to or dependent on this project?

- Is this project dependent on other activities or actions?
- If yes, describe projects, action or activities specifying phases where appropriate.

4. Will the project require additional infrastructure, activity, or staffing outside the immediate department or activity? (E.g., will the construction of a new facility require additional roads or road maintenance or more internal City staffing?)

No.

5. What regulatory permits will be required and how will they be obtained?

From PND's Project Programming and Design Criteria Narrative:

Permitting:

1. ADEC Drinking Water Plan Review
2. ADEC Wastewater Plan Review, Operation Permit
3. ADEC Wastewater Storm Water Engineer Plan Review
4. Alaska State Fire Marshall (Building permit)

Permits will be obtained during the initial construction process.

6. What are the estimated initial (e.g., construction or purchase) and continuing operational costs of the project?

Construction is estimated to be \$3,832,560.

Operating costs are estimated to be \$7,600 annual for electrical, insurance and minor building maintenance. These estimates do not include the full utility costs for equipment located within the building.

7. Is an engineering design or construction estimate necessary?

Yes.

8. Will operation of the project generate any revenue for the City such as sales, user fees, or new taxes? If so, how will the new revenue be collected?

Payment of fees is part of the DRC’s operation, one of the duties of the DRC Operator.

## Part 5. Project Budget

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Please refer to the construction budget in Part 2, 7

Proposed Budget Line Items

Construction project Budget estimate	Cost	Operational budget estimate (annual)	Cost
Administrative	\$	Personnel	\$
Project management	\$	Benefits	\$
Land, structures, ROW, easements	\$	Training	\$
Engineering work	\$	Travel	\$
Permitting, inspection		Equipment	\$
Site work	\$	Contractual	\$
Construction	\$	Supplies	\$
Waste disposal	\$	Utilities	\$2,000
Equipment	\$	Insurance	\$5,600
Freight	\$	Repair & maintenance	\$
Contingencies	\$	Other (list)	\$
Other (list)	\$	Other (list)	\$
Other (list)		Total direct costs	\$7,600
		Indirect costs	\$
		Income (fees, taxes)	\$
		Balance: costs-income	\$

**Part 6. Jobs and Training (required by some granting agencies)**

- What service jobs will be needed for operation and maintenance?  
Existing DRC staff.
- How many full-time, permanent jobs will this project create or retain?  
1.5 FTE Create/retain in 1-3 years  
1.5 FTE Create/retain in 3-5 years
- What training is necessary to prepare local residents for jobs on this project?  
None.
- How many local businesses will be affected by this project and how?  
All businesses producing solid waste will be directly and indirectly effected by this project. This project, if completed, should help maintain lower disposal costs for local business because the DRC's operation will be streamlined.

**Part 7. Business Plan (Upon Council request)**

Upon Council request, please prepare a business plan for the operating phase of your leading option(s). Plans will differ according to the nature of the project.

There are a number of good Internet sites that will assist you in developing a business plan. One example (05/2018) is: [http://va-interactive.com/tools/business\\_plan.html](http://va-interactive.com/tools/business_plan.html)

Basic components of a business plan:

- The Product/Service
- The Market
- The Marketing Plan
- The Competition
- Operations
- The Management Team
- Personnel

## **Part 8. Record of Project Planning and Development Meetings**

1. Please document the manner in which public input was received.
  - Public comment on agenda item at committee or Council meeting
  - Special public hearing
  - Dates and attendance for the above.
  - Written comment from the public (please attach)
2. Please use the following chart to document committee meetings, Council reports, and so on. Did the committee make recommendations or requests? Did the Council make requests of the committee?

### **Meeting Record**

Event (Meeting of committee, Council report, public hearing, etc.	Date	Agenda Posted (date)	Minutes or record Attached? (yes/no)	Outcome Rec to Council, requested action of Council, etc.	No. of atten-dees

## **Part 9. Feedback to the Council**

With the understanding that this form must be adapted to a variety of projects, please provide feedback on how the form worked for your committee. Thank you for your suggestions.