

# Public Works Site Recommendation

The Draft Environmental Impact Statement (DEIS) focused on identifying environmental impacts and possible mitigation. It is a tool for decision makers to use as one part of the larger siting process.

Today we transition to the larger process of selecting a site that meets the written goals of the community.

Our task at Public Works is to provide services for the community. That is the driving force of our recommendation. To identify the best site for a solid waste facility that will meet the duly adopted goals of San Juan County now and in the future.

# Siting Alternatives Evaluation

To help select the best site, the staff considered 27 Criteria which are presented in three categories:

1. Considered.
2. Mitigated.
3. Selection.

# Considered Category

This category includes criteria that were considered but did not provide a good basis for determining which is the best site. An example of a criterion in this category is vectors (rats, flies, birds, etc.). Vectors are a concern for all solid waste facilities and are controlled through common equipment and facility design or Best Management Practices (BMP's). The control methods are the same on any of the sites so the impact of each of the development alternatives is relatively the same.

# Category : Considered

## Criterion: Vectors

Description: Broadly defined as an agent that can transmit disease. For solid waste facilities this is commonly insects, rodents and birds.

Evaluation: Does the site design and equipment control vectors?

Importance: Prevention of disease is the primary reason for solid waste management. Vectors transmit disease.

Source: Draft EIS, Supplemental Alternatives Analysis (SAA)

Comparison: Control is based primarily on a fully enclosed facility and good site hygiene.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| No       | Yes         | Yes              | Yes         | Yes         | Yes      |

# Category: Considered

## Criterion: Facility Cost

Description: Planning level cost range estimates to develop each of the sites based on assumptions regarding facility construction and site preparation.

Evaluation: Planning level cost range estimates in millions of dollars.

Importance: These estimates help identify the range of capital needs for the facility.

Source: Pickets Engineering.

Comparison: At this stage of the project the estimates overlap and there are many unknowns. There are not adequate specifics available to use these figures as a selection criteria. As design progresses the accuracy of these estimates will gradually increase.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake   |
|----------|-------------|------------------|-------------|-------------|------------|
| NA       | 5.2 to 7.1  | 4.2 to 5.6       | 4.1 to 5.6  | 3.7 to 5.2  | 4.6 to 6.3 |

# Category: Considered

## Criterion: Litter

Description: Light material, usually paper or plastic, that escapes containment and is blown off the site by wind.

Evaluation: Will the facility design control litter?

Importance: This is a common nuisance concern. There can be some health concerns with some components of litter if it is contaminated with residues from food or biological waste.

Source: Draft EIS

Comparison: Exposure to wind is often a concern in this regard. With an enclosed facility this is less significant. Orientation and location of doors will be a consideration during design to avoid a wind tunnel effect.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| No       | Yes         | Yes              | Yes         | Yes         | Yes      |

# Category: Considered

## Criterion: Pedestrian and Bicycle Safety

Description: Maintaining the current level of safety for pedestrians and bicyclists using roadways near the facility.

Evaluation: Will use of any of the sites result in a significant decrease in traffic safety?

Importance: Redistributing traffic to roads that are over capacity would be unsafe.

Source: Mirai Transportation Traffic Report and Supplemental Traffic Report for Town of Friday Harbor

Comparison: This has been a topic of high interest and concern. The DEIS indicated that there were no risks that could not be mitigated. Further study after the DEIS confirmed that redistribution of traffic as a result of the facility will have no measurable effect on bicycle and pedestrian safety.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| NA       | No          | No               | No          | No          | No       |

# Category: Considered

## Criterion: Traffic Safety

Definition: Maintaining the current level of safety for vehicles using roadways near the facility.

Evaluation: Will use of the site result in a significant decrease in traffic safety?

Importance: Redistributing traffic to roads that are over capacity would be unsafe.

Source: Mirai Transportation, Public Works Staff

Comparison: This criterion received additional study after the DEIS. The conclusion was that the changes in traffic would have no measurable effect on traffic safety. Part of the reason for this is the County and Town roads currently operate below capacity and none of the changes in traffic would exceed existing road capacities.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| NA       | No          | No               | No          | No          | No       |

# Category: Considered

## Criterion: Groundwater Contamination

Description: This refers to the potential of the facility to contaminate ground water.

Evaluation: Risk for the facility to cause contamination of ground water on the site.

Importance: Groundwater is a common source of drinking water and also provides underflow to streams and wetlands. Proper management of waste and water prevents groundwater contamination.

Source: Draft EIS, County Health Dept and Dept. of Ecology.

Comparison: A properly designed and operated transfer station in good condition does not contaminate ground water.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| High     | Low         | Low              | Low         | Low         | Low      |

# Category: Considered

## Criterion: County Roadway Operation

Description: A description of changes in the distribution of traffic for each alternative compared to existing conditions.

Evaluation: Will use of any of the sites result in a significant decrease in the level of service for any County roadway?

Importance: To address the potential that a change in traffic would have a significant impact.

Source: Mirai Transportation, Draft EIS and County Engineer.

Comparison: In each case except Sutton Road there will be an increase in traffic near the site. In no case will the increase exceed the road capacity.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| No       | No          | No               | No          | No          | No       |

# Category: Considered

## Criterion: Trailer Parking

Description: The area for parking both full and empty trailers.

Evaluation: Is there adequate trailer parking?

Importance: There must be sufficient space to store empty trailers for loading and full trailers while they await transportation to the mainland. Trailers also provide short term storage for waste if there is an interruption in ferry service.

Source: Picketts Engineering, Public Works

Comparison: Each development alternative includes adequate trailer parking. The existing site does not.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| No       | Yes         | Yes              | Yes         | Yes         | Yes      |

# Category: Considered

## Criterion: Air Traffic Safety

Description: The potential to create a wildlife attractant which can become a hazard to aircraft.

Evaluation: Will the site be a wildlife attractant as described by FAA?

Importance: Public safety for all modes of transportation, site staff and customers is a serious consideration.

Source: FAA Advisory Circular No. 150/5200-33B

Comparison: This has been a topic of high interest and concern. The opinion of the FAA is that enclosed facilities are compatible with safe airport operations. It is not a wildlife attractant and therefore does not pose a danger to aircraft operations.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| Yes      | No          | No               | No          | No          | No       |

# Category: Considered

## Criterion: Odor

Description: Garbage arriving at the site generates odor that can become a nuisance.

Evaluation: Will the facility include systems and BMP's that are designed to control odor?

Importance: Odor is a nuisance that can affect down wind neighbors.

Source: Draft EIS

Comparison: All development options include an enclosed facility that helps to control odor.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| No       | Yes         | Yes              | Yes         | Yes         | Yes      |

# Category: Considered

## Criterion: Household Hazardous Waste Storage

Description: Ongoing Household Hazardous Waste (HHW) collection requires facilities that are designed and operated to both separate and contain the HHW.

Evaluation: What is the risk that storage of HHW could cause contamination of the site?

Importance: These are the types of materials that are most likely to harm the environment and require a higher level of staff training, additional BMP's and a secure storage facility.

Source: Draft EIS

Comparison: All development options include a containment facility for HHW. The existing site does not.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| Moderate | Low         | Low              | Low         | Low         | Low      |

# Mitigated Category

This category includes criteria that will result in an impact but can be mitigated. Noise is an example of criteria in this category. Each site has a different noise environment therefore noise is more of an issue at some sites. However, on the more affected sites the noise can be reduced through operational and structural controls tailored to the site. The result is that after mitigation the development alternatives have a relatively equal impact.

# Category: Mitigated

## Criterion: Air Pollution/Dust

Description: This is related primarily to emissions from on-site equipment and vehicles delivering waste and the surface disturbance they cause.

Evaluation: Will the impact of air pollutants or dust be higher at any given site?

Importance: This is the same for all development alternatives with enclosed structures.

Source: Draft EIS

Comparison: An enclosed facility contains the dust that can be generated by on-site equipment operation when moving and compacting garbage as well as the dust from vehicles delivering waste.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| Yes      | No          | No               | No          | No          | No       |

# Category: Mitigated

## Criterion: Visual Impacts

Description: The presence of sensitive receptors and the potential for lighting impacts.

Evaluation: Are there, or will there be, any unmitigated visual impacts?

Importance: Visual impacts and extraneous light can be a nuisance.

Source: Draft EIS

Comparison: These impacts can be mitigated by lighting design and site screening.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| NA       | No          | No               | No          | No          | No       |

# Category: Mitigated

## Criterion: Noise

Description: The potential for noise to impact neighbors.

Evaluation: What is the range of predicted increase in on site noise above background levels?

Importance: Noise levels are regulated and must stay below regulatory standards. Noise at each site can be mitigated to stay within regulatory limits.

Source: AMEC Noise Report, Draft EIS appendix E

Comparison: After mitigation all the sites meet the noise limits. The following table lists the dBA of common noise sources.

|        |                 |              |         |                        |               |           |
|--------|-----------------|--------------|---------|------------------------|---------------|-----------|
| Source | Rustling Leaves | Soft Whisper | Library | Conversation at 3 feet | Car at 50 mph | Lawnmower |
| dBA    | 20              | 30           | 40      | 60                     | 70            | 100       |

|          |             |                  |             |             |             |
|----------|-------------|------------------|-------------|-------------|-------------|
| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake    |
| NA       | 1 to 8 dBA  | 2 to 19 dBA      | 1 to 20 dBA | 1 to 10 dBA | 1 to 10 dBA |

# Category: Mitigated

## Criterion: Utilities

Description: Basic utilities needed to serve the site including sewer, water, power and runoff controls.

Evaluation: Existence on site or readily available.

Significance: Utilities must be available to develop the site. Existing facilities reduce project costs and reduce unknowns related to utility installation.

Source: Picketts Engineering

Comparison: The services are possible at each site though the specifics are not clear at this time. Some sites may require applications for permits or permission to use an existing system such as the Town water supply.

| Utility         | Existing    | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|-----------------|-------------|-------------|------------------|-------------|-------------|----------|
| Stormwater      | Ineffective | None        | Pond             | None        | Two Ponds   | None     |
| Sewer or Septic | None        | None        | Septic           | None        | None        | None     |
| Water           | Yes         | Yes         | Yes              | None        | None        | None     |
| Power           | Yes         | Yes         | Available        | Available   | Available   |          |

# Category: Mitigated

## Criterion: Wetlands

Definition: This relates to the likelihood that wetlands may be significantly impacted on this site. Mitigation is possible on all sites.

Evaluation: Are wetlands present in an area downslope of operations or access that are likely to be directly or indirectly impacted?

Importance: Wetlands are provided special protection in Washington. At each site, including where direct impact is anticipated, the impacts can be mitigated.

Source: Draft EIS

Comparison: Direct impact refers to construction activity in a wetland. Indirect impact refers to the any other impact.

|                        | <b>Existing</b> | <b>Sutton Road</b> | <b>Beaverton Valley</b> | <b>Daniel Lane</b> | <b>Golf Course</b> | <b>Egg Lake</b> |
|------------------------|-----------------|--------------------|-------------------------|--------------------|--------------------|-----------------|
| <b>Direct Impact</b>   | No              | Yes                | No                      | No                 | No                 | No              |
| <b>Indirect Impact</b> | No              | No                 | No                      | No                 | No                 | No              |

# Selection Category

This is the category that helps separate the best sites. Examples of the criteria in this category are the distance to the ferry landing and the size of the site. These are criteria that impact the design of the site and the ability to provide services.

# Category: Selection

## Criterion: Impervious Area

Description: Area of the site that is expected to be covered with impervious surfaces including buildings roads and operational areas.

Evaluation: What percentage of the site will be covered with impervious area?

Importance: Impervious area is limited by development standards. None of the sites meet the 10 percent limit. A variance will need to be requested regardless of which site is chosen.

Source: Picketts Engineering, Public Works, CD&P

Comparison: The Golf Course site may be an exception as it would be more difficult to obtain a variance for such a high impervious area.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| 80 to 90 | 27 to 33    | 20 to 25         | 27 to 33    | 65 to 70    | 14 to 19 |

# Category: Selection

## Criterion: Distance to Ferry

Description: The distance to the site from the ferry terminal.

Evaluation: Approximate distance in miles.

Significance: The greater the distance to the ferry the longer the turnaround time for long haul trailers. Longer turnarounds increase cost.

Source: Picketts Engineering

Comparison: Egg Lake is clearly the poorest site in this category.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake  |
|----------|-------------|------------------|-------------|-------------|-----------|
| 2 Miles  | 2 Miles     | 1.5 Miles        | 2.25 Miles  | 2 Miles     | 6.5 Miles |

# Category: Selection

## Criterion: Useable Area

Descripton: Area of the site that is available for development after considering required setbacks and unusable portions of the site.

Evaluation: Acres.

Importance: A larger site can accommodate more services and allow for a broader range of options for site development.

Source: Picketts Engineering, Public Works Dept.

Comparison: On sites with steeper slopes or benched portions less acreage than shown here may be available to provide services.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| 2        | 20          | 25               | 20          | 7           | 37       |

# Category: Selection

## Criterion: Ability to Provide Services

Definition: The feasibility of a site to provide the appropriate space where a specific service can be provided.

Evaluation: Can the site accommodate the listed services with conditions described below?

Importance: Providing services described in the solid waste management plan is the purpose of the facility.

Source: Picketts Engineering

Comparison: This criteria further decreases the desirability of Golf Course Road and Sutton Road. In the Sutton Road case the need for cuts and fill will increase cost and restrict site design options.

| Services           | Existing | Sutton Road      | Beaverton Valley | Daniel Lane | Golf Course Road | Egg Lake |
|--------------------|----------|------------------|------------------|-------------|------------------|----------|
| Waste Transfer     | Yes      | Yes              | Yes              | Yes         | Yes              | Yes      |
| Recycling Drop-Off | Yes      | Yes              | Yes              | Yes         | Yes              | Yes      |
| Household Haz.     | No       | Yes              | Yes              | Yes         | Yes              | Yes      |
| Material Exchange  | No       | Yes              | Yes              | Yes         | Yes              | Yes      |
| Compost Drop-Off   | No       | Yes              | Yes              | Yes         | Yes              | Yes      |
| Compost Processing | No       | Yes w/excavation | Yes              | Yes         | No               | Yes      |
| C&D Drop-Off       | No       | Yes w/excavation | Yes              | Yes         | Yes              | Yes      |
| C&D Processing     | No       | Yes w/excavation | Yes              | Yes         | No               | Yes      |

# Category: Selection

## Criterion: Site Topography

Description: How well the topography of the site lends itself to facility development.

Evaluation: How difficult is the site to develop as related to the other sites?

Importance: Level sites are generally easier to develop.

Source: Picketts Engineering

Comparison: Daniel Lane is both fairly large and flat which makes the topography best.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| NA       | Moderate    | Moderate         | Easy        | Moderate    | Moderate |

# Category: Selection

## Criterion: Excavation Requirements

Description: The approximate amount of cut and fill required to provide services based on the conceptual layout for each site and the type of material encountered.

Evaluation: Type of material and cubic yards of cut and fill.

Importance: Larger volumes lead to higher costs and more unknowns that can be encountered. Rock costs more to remove than soil.

Source: Picketts Engineering

Comparison: Smaller volumes of soil for both fill and excavation would be the best situation. This criteria favors Daniel Lane.

|            | Existing | Sutton Road      | Beaverton Valley | Daniel Lane     | Golf Course      | Egg Lake         |
|------------|----------|------------------|------------------|-----------------|------------------|------------------|
| Material   | NA       | Primarily Rock   | Rock and Soil    | Primarily Soil  | Primarily Soil   | Primarily Rock   |
| Excavation | NA       | 20,000 to 29,000 | 10,000 to 15,000 | 7,000 to 10,000 | 38,000 to 58,000 | 10,000 to 15,000 |
| Fill       | NA       | 20,000 to 21,000 | 9,000 to 19,000  | 7,000 to 10,000 | 3,000 to 5,000   | 10,000 to 15,000 |

# Category: Selection

## Criterion: Expansion Potential

Definition: The potential to add additional services when needed or to co-locate other types of County facilities.

Evaluation: potential for expansion based on remaining area after planned services are sited.

Importance: If there is space available other services may be added, otherwise there will be no additional services.

Source: Picketts Engineering

Comparison: This is related to the size and topography of the site.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| NA       | Poor        | Good             | Good        | Poor        | Good     |

# Category: Selection

## Criterion: Land Use Designations

Description: Current County or Town Designation

Evaluation : What are the current land use designations and the permitting requirements for a transfer station?

Importance: An allowed use is more easily developed than one that requires a conditional use permit or one that is not permitted in a particular designation.

Source: County and Town land use designation maps.

Comparison: There is an additional element of uncertainty with the Utility designation if the County purchases the Sutton Road site. A new land use designation would be required. In addition the area designated as Ag Resource can support the transfer operation with stormwater ponds and potentially composting but is not appropriate for waste transfer or recycling.

|                   | Existing                | Sutton Road                  | Beaverton Valley       | Daniel Lane            | Golf Course            | Egg Lake               |
|-------------------|-------------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|
| Designation       | Town Utility            | Town Utility and Ag Resource | Rural General Use      | Rural General Use      | Rural General Use      | Rural General Use      |
| Permitting Status | Allowed in Town Utility | Unknown                      | Conditional Use Permit | Conditional Use Permit | Conditional Use Permit | Conditional Use Permit |

# Category: Selection

## Criterion: Existing Contamination

Description: Some of the sites have supported other uses. Some of the uses have or may have contaminated the site. Further development may encounter the contamination and initiate a clean-up response

Evaluation : What is the risk that the site has been contaminated by previous uses.

Importance: The transfer station is a clean facility with working BMP's. If previous activity contaminated the site the transfer facility could be inappropriately blamed for that contamination. During site development, construction activity could result in an encounter with contamination that would require clean-up. Finally the facility itself could be contaminated by the site again requiring clean-up.

Source: Draft EIS and Public Works

Comparison: The landfill at the Sutton Road site is clearly the largest known source of potential contamination on any of the candidate sites.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| High     | High        | Low              | Low         | Low         | Low      |

# Category: Selection

## Criterion: Greenhouse Gases

Description: This is an estimate of the amount of greenhouse gases that are likely to be produced from the operation of the facility and the vehicles that deliver waste to the facility

Evaluation: MT of CO2 over a 62.5 years

Importance: Greenhouse gases are considered the root cause of global warming which is addressed by the County Resolution.

Source: Draft EIS

Comparison: No evaluation was made for the existing site.

| Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|----------|-------------|------------------|-------------|-------------|----------|
| ??       | 5541        | 5202             | 4854        | 5459        | 5951     |

# Category: Selection

## Criterion: Acquisition Time and Cost

Description: The relative difficulty and cost of acquiring the property.

Evaluation :

Importance: This could range from simply the need to fund a purchase to a protracted negotiation that would delay the project.

Source: Public Works

Comparison: Beaverton Valley was rated as the lowest difficulty since the site is currently owned by the County. Three of the sites are given a moderate rating as they are each privately owned. The Sutton Road site is rated the most difficult as previous negotiation with the Town for purchase of the site failed.

|                                 | Existing | Sutton Road | Beaverton Valley | Daniel Lane | Golf Course | Egg Lake |
|---------------------------------|----------|-------------|------------------|-------------|-------------|----------|
| Time to Acquire                 | NA       | High        | None             | Med         | Med         | Med      |
| Assessed Value/<br>Useable acre | NA       | Unavailable | \$40,000         | \$80,000    | \$150,000   | \$30,000 |

# Final Analysis

| Selection Criteria  | Beaverton Valley | Daniel Lane | Egg Lake | Golf Course | Sutton Road |
|---------------------|------------------|-------------|----------|-------------|-------------|
| Services            | +                | +           | +        | -           | -           |
| Contamination       | +                | +           | +        | +           | -           |
| Useable Area        | +                | +           | +        | -           | -           |
| Land Use            | +                | +           | +        | +           | -           |
| Impervious Area     | +                | +           | +        | -           | +           |
| Expansion Potential | +                | +           | +        | -           | -           |
| Acquisition         | +                | +           | +        | +           | -           |
| Topography          | +                | +           | +        | +           | -           |
| Excavation          | +                | +           | -        | +           | -           |
| Ferry               | +                | +           | -        | +           | +           |
| Greenhouse          | +                | +           | -        | +           | +           |