

Request for Approval of an Alternative Program for Recycling in Langley and Freeland

BACKGROUND

Washington State law requires curbside recycling services to be provided in urban areas (see Attachment 1), unless an alternative plan is approved by the Department of Ecology (Ecology). This provision was adopted through Substitute House Bill No. 1671 (the Waste Not Washington Act) in 1989. At the time, this was recognized as landmark legislation and it continues to be considered as such today. Among other things, this legislation also adopted the goal for achieving 50% recycling statewide by 1995 and recognized the need to avoid excessive packaging, conduct comprehensive public education, and the need for government entities to “set an example by implementing aggressive waste reduction and recycling programs at their workplaces and by purchasing products that are made from recycled materials and are recyclable.” It is interesting to note that even now, 30 years after this legislation was approved by Governor Booth Gardner on May 15, 1989, most of the issues addressed in this far-sighted legislation remain relevant. Government entities at all levels continue to strive to meet the goals and standards espoused in this legislation. Which is not to say that there has been no change, however, and recycling in particular has evolved significantly in the past 30 years.

Over the past 30 years, recycling has grown from a system that relied on a high degree of source separation to the commingled approach now used in most areas. Where there was many small businesses and non-profit organizations involved in recycling, curbside recycling now is conducted almost solely by the same large companies that also collect garbage and operate landfills. Where once contamination rates of 5 to 10% were considered problematic, many areas are now seeing 25 to 40% of the materials collected from curbside routes being thrown away as contamination and unrecovered recyclables. The markets for the materials collected have changed as well, where once the recycling system in Washington relied significantly on paper mills in the Pacific Northwest and other domestic markets, markets had shifted primarily overseas until recently when the access to these markets was cut off. Finally, the materials in the recycling and waste streams have grown increasingly complex, thanks to changes such as a reduction in newspaper and new technologies in packaging.

In Island County, there are four areas designated as urban according to the Island County Comprehensive Plan (ICCP): two cities (Oak Harbor and Langley), one town (Coupeville) and one urban growth area (Freeland). Two of these areas are currently served by curbside recycling (Coupeville and Oak Harbor) and two are not (Langley and Freeland). Curbside recycling is also available on Camano Island. Several attempts have been made in the past to implement curbside recycling in Langley, Freeland and other areas of Whidbey Island, but none of these efforts have worked out. Previous attempts have included a proposal by Island Disposal in 2009 and a service level ordinance a few years later that was first adopted and then retracted by Island County. More recently, Island County staff were in discussions with Island Disposal about

how curbside recycling could be implemented in additional areas, but then the recycling markets suffered a serious downturn and these discussions had to be put on hold.

It is the long-term goal that Langley and Freeland be served by curbside recycling. This goal is recommended in the Island County Solid Waste and Moderate Risk Waste Management Plan, and was recently reaffirmed in discussions by the Island County Solid Waste Advisory Committee. Hence this Request for an Alternative Program (if approved) should be considered only a temporary measure to satisfy State law until such time as the recycling markets recover sufficiently to allow a reasonable approach for implementing new curbside recycling programs.

The rest of this document is primarily directed at providing the information required by State law (see Attachment 1), which includes “anticipated recovery rates and levels of public participation, availability of environmentally sound disposal capacity, access to markets for recyclable materials, unreasonable cost impacts on the ratepayer over the six-year planning period, utilization of environmentally sound waste reduction and recycling technologies, and other factors as appropriate.”

CURRENT CONDITIONS

Demographics

According to data from the Office of Financial Management (OFM), 1,175 people lived in Langley in 2018. OFM data also shows that there are a total of 762 housing units in Langley, with about 78 units in multi-family housing.

Data from the ICCP and the related Freeland Subarea Plan show that 539 people live in Freeland in 266 housing units. There are no multi-family units in Freeland, although about 70 people reside in an assisted living facility (Maple Ridge).

Existing Practices

Langley was incorporated as a city in 1913. The city currently provides other utility services but is not actively in waste collection or recycling. Langley provides water service, sewer service and stormwater management. Langley also operates a drop-off yard debris collection site at its wastewater treatment plant, where the yard waste is mixed with sewage solids, composted and the resulting Class A biosolids are given away.

Freeland is designated as a non-municipal urban growth area (NMUGA), and is the only NMUGA in Island County. Freeland lacks urban services such as public sewer and stormwater systems, but the designation of this area as an NMUGA is intended to encourage the development of infrastructure that is characteristic of urban growth.

In both Langley and Freeland, Island Disposal collects residential and commercial solid waste as part of their certificated services in the unincorporated areas of Whidbey Island. Island Disposal’s rates and services in this area are regulated by the UTC, and are not controlled to any degree by Langley or Island County.

Both Langley and Freeland are currently well-served by recycling drop-off sites at Bayview Dropbox and Island Recycling. The Bayview Dropbox is located 5.0 miles from Langley (about a ten minute drive) and 3.7 miles from Freeland (about a six minute drive). The Bayview Dropbox collects the typical types of recyclable materials (paper, plastic bottles, cans and glass), as well as clothing, motor oil, batteries, cell phones, fluorescent light bulbs, and scrap metal. The Bayview Dropbox is open four days per week. Island Recycling, which is located in Freeland and is 9.3 miles (about 17 minutes) from Langley, collects a wider variety of materials. Island Recycling is open six days per week (the facility is closed on Mondays).

Participation and Recovery Rates

In general, participation and recovery rates are much better for curbside recycling programs than for drop-off programs. In this case, however, it must be kept in mind that the alternatives are either:

- a drop-off program providing access to a wider range of materials, and that results in lower amounts of contamination, or
- a voluntary curbside program that would likely have low participation and that would not collect glass.

The assumptions about the curbside program are due to the fact that these are certificated areas where the curbside services would be conducted by a Waste Connections company (Island Disposal). As a rule, Waste Connections is well-known for not including glass in their curbside recycling programs, and instead collecting glass through drop-off sites or not at all. And since the new curbside programs would be in areas controlled by the UTC certificate, the recycling service would be optional (just as garbage service is optional) and the additional cost would not be subsidized or hidden in any way. The current garbage subscription rate in the Island Disposal service area (for Whidbey Island exclusive of the cities of Oak Harbor and Coupeville) is 46% (based on data provided by Waste Connections in mid-2018). Since Island Disposal does not provide curbside recycling in this area, there is no data on this, but curbside recycling is provided by Waste Management on Camano Island. On Camano Island, the garbage subscription rate is 55% and the curbside recycling rate is 28% of the total households in that area (both figures are as of January 1, 2018). Since the garbage subscription rate is lower on Whidbey Island, it would naturally follow that the recycling subscription would be lower as well (all other things being equal, but the cost of the service and inability to recycle as many materials, such as glass, could affect this). Hence, the projected figure is that there would be a 23% subscription rate for curbside recycling in Langley and Freeland.

The best available data on the potential amount diverted through new curbside programs in Freeland and Langley comes again from the Camano Island program. In 2017, the curbside recycling program operated by Waste Management on Camano Island collected 607 tons from 2,500 customers, or 486 pounds per household per year. This figure would need to be adjusted for the amount of glass, since glass is included in the Camano Island mix but would not likely be in the Whidbey Island mix, leading to an estimate of 374 pounds per household per year for a

curbside program in Langley and Freeland (based on glass being 23% of the mix, which is from a Kitsap County study in 2015). This leads to the projected results shown in Table 1.

Table 1: Projected Results of Curbside Programs

	Total Households	Projected Participation Rate	Projected Pounds per Household per Year	Tons per Year
Freeland	266	23%	374	11.4
Langley	762	23%	374	32.8

Note that the projected amount for both areas together (44 tons per year) would increase Island County’s current (2016) recycling rate from 34.3% to 34.4%. It should also be noted that the projected amounts have not been adjusted for contamination levels. Based on recent studies in Clark and Kitsap Counties, contamination rates of 10% to 20% can be expected. With the additional losses of “good recyclables” that occur in current processing facilities, the actual amount of materials recycled is only 60% to at best 80% of what is collected. This decreases the anticipated results of curbside recycling in these two areas from 44 tons per year to 27 to 35 tons per year.

There is no hard data available on the participation rates and recovery amounts that are occurring through local drop-off programs in Island County, but it is easy to believe that drop-off services are providing comparable results, or nearly so, to the 44 tons per year projected above (or to be more precise, to the amount recycled minus contamination). This conclusion is based on:

- the significant incentive of using free recycling to avoid tipping fees for garbage,
- the ability to drop off a wider variety of materials,
- the proximity of two good options for drop-off recycling,
- the lower levels of contamination inherent in drop-off programs (see the following paragraph), and
- the generally pro-environmental ethics of Island County residents.

A final important point about the differences between the existing drop-off services and a possible curbside recycling program is the level of contamination. As noted above, contamination levels in current curbside recycling programs range from 10% to 20% and possibly higher in some areas. Contamination levels at drop-off sites are much lower, at least for staffed sites. In the case of both the Bayview Dropbox and Island Recycling, customers are assisted as needed and the contents of drop-off boxes are monitored closely for contamination. Based on observations made at these facilities, it is reasonable to project that contamination levels are very low, from 0% to 1%.

Current Markets for Recyclable Materials

The current market problems for recyclable materials are well-documented and do not need to be explained at length here. In summary, much of the paper and plastics collected through recycling programs in the Pacific Northwest were being marketed to companies in China until recently, when the Chinese government banned most of these imports. After much initial chaos, including some cases where recyclable materials were instead landfilled, the situation has stabilized and most of the recyclable materials are now going to alternative markets. The situation is still shaky, however, and prices for the materials are extremely depressed compared to the levels enjoyed a few years ago.

According to information recently compiled by Ecology and provided in a Powerpoint document titled "Recyclable prices in the Pacific Northwest," the market prices for some plastic grades were actually better in 2018 than in 2016. Prices for other plastic grades (colored HDPE, mixed rigid plastics and commingled types 3-7) were significantly reduced. The larger problem is the price of various paper grades, since paper makes up over half¹ (by weight) of the materials collected from residential sources. The data compiled by Ecology shows that paper prices dropped by 44% to 91% from mid-2017 to 2018. Prices for glass bottles and metal cans were relatively stable over that same time period and even increased slightly (by 9% to 27%).

While the above information on markets is important, it is not the entire story. Actual access to markets depends on several other factors, including the degree of contamination, location and transportation charges, and other factors. When markets become tight, it is usually the lowest-quality (most contaminated) materials that are rejected first, hence contamination levels can be critical for marketability at times. At the local level, the market price is often less important than collection and processing costs (although of course market prices affect processing charges). Processing costs and market access are significant concerns in Island County. Island Recycling has had serious problems finding markets for their materials at times in the past few years, and Oak Harbor has experienced substantial increases in processing costs for their materials. The recyclables collected by Oak Harbor are delivered to Island Disposal, and Island Disposal transports those to Pioneer Recycling (in Frederickson, which is near Tacoma). The charge for this service has tripled in the past year, going from \$45 per ton to \$94.35 per ton in October 2018, and now to \$135 per ton as of June 1, 2019.

Future markets for recyclable materials are expected to improve due to the several new or expanded paper mills being developed in the Northwest and throughout the United States, which are expected to come on line within the next few years. Domestic markets are also helping to absorb plastics and other recyclables.

Availability of Environmentally-Sound Disposal

¹ In curbside programs where glass is included in the mix of recyclables collected, the paper grades make up 50% to 60% of the weight of materials. In areas where glass is not part of the mix, because it is not collected or it is collected through drop-off sites, the amount of paper is higher.

This is perhaps the one area where the 30-year old legislation is outdated. The progress made over the past three decades provides Island County and other Washington counties with well-managed disposal systems utilizing transfer stations and landfills that meet strict standards for environmental safety. Residents of all Washington counties also have access to garbage collection services that use these disposal systems. As a result, this factor is perhaps less of a concern now than it was 30 years ago.

Utilization of Environmentally Sound Waste Reduction and Recycling Technologies

The use of environmentally-sound waste reduction and recycling technologies may also seem like a simple or outdated concept, but it is actually a more complex question than the use of environmentally-sound disposal.

Waste Reduction: The primary activities addressed in Island County for waste reduction include reuse of household goods, repair of consumer products to extend their useful life, avoiding wasted food, backyard composting, methods that reduce the toxicity of wastes, and education to support these activities. Except for backyard composting, it's not likely that any of these could be practiced in an unsound manner. In an extreme case, backyard composting could be done in ways that would be less than environmentally sound but these instances would be both rare and eventually addressed through education or code compliance actions.

Recycling: Whether recent practices in recycling can be considered environmentally sound is an open question. The shipment of large quantities of recyclables with high amounts of contamination to China and other countries has created environmental problems in those other countries. At the base of this problem is the current reliance on single-stream recycling, where mixed materials collected for recycling cannot be fully sorted by current processing facilities. This means that not only are contaminants shipped out with the recyclables sent to markets but a substantial portion of the "good recyclables" are also lost because those are shipped to the wrong market with other types recyclable materials or they are lost in the processing residuals. This loss of recyclable materials can hardly be viewed as a sustainable practice. To the extent that drop-off programs do a better job of delivering the correct recyclables to the right market, and with lower amounts of contamination, drop-off programs have a clear advantage over curbside programs in being environmentally sound.

Unreasonable Cost Impacts on the Ratepayer over the Six-Year Planning Period

There is no question that implementing curbside recycling in additional areas at this point in time, whether in Island County or in any part of Washington State, would create an unreasonable cost impact to ratepayers. With the current low market prices causing very low or even negative prices for many of the primary recyclables, the resulting lack of offsetting revenues means that ratepayers will need to pay significantly more for such programs. As mentioned above, the current market conditions have caused the processing charge for Oak Harbor to be increased from \$45 to \$135 per ton.

FUTURE PLANS

It has been the goal for many years to implement curbside recycling in Freeland and Langley, or actually throughout Whidbey Island, and that remains the goal. Steps that were being taken toward this goal were put on hold when recycling suffered due to the loss of Chinese markets. It is unknown at this point if markets will recover sufficiently to allow curbside recycling to be implemented in these areas during the next six year planning period (2020 to 2025). It is also unknown exactly what a future curbside program in these areas will look like, especially since that would likely be determined largely by Island Disposal and the UTC. Recent statements by the UTC have made it clear, however, that the materials to be included in future curbside recycling programs will need to meet strict standards for marketability. For now, it can only be assumed that the existing recycling drop-off programs will continue in a similar fashion and at a similar cost, as there are no foreseeable plans to change those programs and the County has a commitment to continue to support Island Recycling and the Bayview Dropbox.

Attachment 1

State Law concerning Curbside Recycling in Urban Areas

From RCW 70.95.090:

Each county and city comprehensive solid waste management plan shall include the following:

(6) A comprehensive waste reduction and recycling element that, in accordance with the priorities established in RCW 70.95.010, provides programs that (a) reduce the amount of waste generated, (b) provide incentives and mechanisms for source separation, and (c) establish recycling opportunities for the source separated waste.

(7) The waste reduction and recycling element shall include the following:

(a) Waste reduction strategies;

(b) Source separation strategies, including:

(i) Programs for the collection of source separated materials from residences in urban and rural areas. In urban areas, these programs shall include collection of source separated recyclable materials from single and multiple-family residences, unless the department approves an alternative program, according to the criteria in the planning guidelines. Such criteria shall include: Anticipated recovery rates and levels of public participation, availability of environmentally sound disposal capacity, access to markets for recyclable materials, unreasonable cost impacts on the ratepayer over the six-year planning period, utilization of environmentally sound waste reduction and recycling technologies, and other factors as appropriate. In rural areas, these programs shall include but not be limited to drop-off boxes, buy-back centers, or a combination of both, at each solid waste transfer, processing, or disposal site, or at locations convenient to the residents of the county. The drop-off boxes and buy-back centers may be owned or operated by public, nonprofit, or private persons;