Town Council
Staff Report

To: Town Council

From: Daniel C. Holler, Town Manager

RE: Solid Waste Update

Meeting: August 2, 2017

Status of Town Solid Waste Management Efforts

The last overall update on the Town's solid waste program was provided last December. The report provided an overview of the State legislative mandates and goals. In addition to the State mandates the Town's overall solid waste system is linked to a number of agreements, all of which need to be coordinated and appropriately addressed to have a well-managed, long term solid waste management system. The various agreements include the following:

- The agreement between Mono County and Los Angeles Department of Water & Power for the Benton Crossing Landfill. This agreement calls for the landfill to stop accepting material as of January 1, 2023. The landfill will be effectively closed at year end 2022.
- The Town has a solid waste flow agreement with Mono County to direct waste to the Benton Crossing Landfill through December 31, 2021. This agreement may be extended to the landfill closure date. The agreement assumes 10,500 tons of waste to be directed to the landfill each year. This is designed to assist the County with landfill closure plans (knowing the amount of material) and funding (minimum of $777,000 annually). The Town provides 80%+/- of the waste stream currently going to the landfill.
- The Town has a Parcel Fee agreement with Mono County which allows for the levy of the County's solid waste parcel each fiscal year through FY 19-20 (i.e. it expires June 30, 2020). Mono County is interested in revisiting the parcel fee agreement for a longer term. The Parcel Fee currently generates about $480,000 per year. These funds have been used by the County for funding the solid waste program, primarily Benton Crossing Landfill. Under the Flow Agreement a portion of these revenues will come back to the Town to assist with solid waste programs.
- The Town has an exclusive Solid Waste Franchise Agreement with Mammoth Disposal for the collection and disposal of solid waste. The agreement extends through December 31, 2019. Mammoth Disposal, through its parent company Waste Connections, is interested in a new franchise agreement.
- The Town has an annual agreement with Sierra Conservation Project for specific recycling services.

The above agreements primarily address short-term disposal needs and funding for the Benton Crossing Landfill as it moves towards closure. An overview of state mandates, agreements, proposed work program and goals will be provide as part of the staff presentation.

A number of programs have been implemented in conjunction with Mammoth Disposal, Sierra Conservation Project and the County to enhance diversion rates and recycling. The Town has implemented or enhanced a number of programs as previously directed by CalRecycle, including adopting green building codes resulting in more C&D recycling, additional cardboard collection, and collection of materials at events. Mammoth Disposal has instituted a mattress recycling program and enhanced paint and other hazardous material collection as well as e-waste and other material. A recent CalRecycle Grant award will be used to improve the sorting line at Mammoth Disposal and provides for additional recycle containers to be placed at businesses and condo complexes. All of the work combined has moved the Town in a positive direction.

However, the amount of potential recyclable material going to the landfill is still substantial. This was seen in the 2014 waste characteristics study done by CalRecycle. For example this study shows 1,518 tons of food waste from commercial, franchised hauling and 851 tons from commercial residential hauling. It is estimated that 80% or more of this waste is coming from Mammoth Lakes. There was also substantial amounts of cardboard, mulch/leaves and grass noted along with other recyclable material found in the waste stream. The Town is meeting the per capita goals in part due to the large amount of recycling at the landfill of inert material, construction and demolition (C&D) waste, and green waste and sludge which are used as Alternative Daily Cover (ADC). Green waste that is used for ADC will not be counted as diversion as of January 1, 2020. It is not yet known what impact the closure of the landfill will have on some of the recycling programs currently offered at the site.

This past November Environmental Diversion Solutions (EDS) presented a feasibility study looking at a number of options that could be implemented to enhance recycling efforts, address state mandates and goals and to prepare the Town for the landfill closure. A number of questions were raised regarding some of the details of the report, but not necessarily the overall direction as proposed. EDS volunteered to update the report and a final version is anticipated to be ready prior to the Council meeting. A presentation on the concepts was made to the Solid Waste Task Force. EDS has voluntarily continued to review technologies and options that will enhance recycling and reuse of materials in Mammoth Lakes. During the update process EDS made the Town aware of the Forest Service Wood Innovations Grant. The Council approved the application for the Grant on January 18, 2017. Working with EDS the Town was able to prepare a successful grant, discussed in more detail below.

The final phase of the program proposed by EDS is to have a fully integrated Green Transformation-Transfer Station. The idea of transformation is captured in the recycling of organic material for local use, the conversion of biomass to energy, and the potential for reuse of other materials within the community. The transfer concept builds off of current practices of transferring recyclable materials to appropriate markets. The added element will be the transfer of the remaining trash material to an appropriate landfill. The Green element will be achieved with the complete program being implemented, as it is projected that the Town will be diverting in excess of 75% of the local waste stream from being landfilled. This is achieved while reducing our carbon footprint, sourcing and reusing processed materials locally. The integration of the technologies discussed in the EDS report will make this one of the greenest transfer stations that they are aware of in the country, especially in a small community.

In the near term there are a number of improvements in the overall solid waste program that need to be pursued now, if the Town is to be successful in the future. These are noted in the work program below. The request from staff is for approval to negotiate an agreement with EDS to continue the work they have identified. Staff and our partners support the concepts but we do not have the staff capacity to focus on and pursue implementation of new programs and pilot projects. Having a consulting group work as an extension of staff will add the capacity needed to succeed in a number of areas. This includes items noted in the work program and support for implementing the Wood Innovations Grant. A proposed agreement, scope and cost will be brought back to Council for review and approval.

Wood Innovations Grant

On January 18, 2017 the Council authorized the submission of a $250,000 Forest Service Wood Innovations Grant. In July the Town received the formal notice of award of the grant. EDS assisted the Town with the grant and in working with the Forest Service to receive a time extension due to the winter storm events. The Grant is focused on technology selection, design, size, and location for a biomass processing system. The grant application incorporates the system as part of the Green Transformation-Transfer Station. The system concept is to process biomass waste products from work within the forest or similar work on private properties. This includes the collection of slash piles and other residues from forest management projects. Secondly, to process biomass materials that are not used in other systems (i.e. composting) such as pine needles, clean C&D wood products, and similar material. The process will provide a viable option for companies like Southern California Edison who consistently remove material form power lines.

The output of the process will be energy (electricity) and biochar. The energy produced will be used to power the transfer station facilities with excess sold back to the power company or pending the regulatory process used by the Town or other governmental agencies. The biochar has a market value and will be sold accordingly. The potential success of the facility is based on the biomass work done by TSS Consultants for Mono County, the increase in area tree mortality and estimates of other green materials delivered to the transfer station that may be processed. The technologies being reviewed include looking at the ability to manage operational times (i.e. on and off times) due to feedstock availability and to maximize the desired output to maximize value. However, as part of a larger solid waste and biomass management program the need to achieve a certain return of investment simply from energy production is not required. The purpose of the program goes beyond the standard ROI analysis and incorporated added environmental improvements (air quality, fire mitigation, re-use of materials, reduced carbon footprint etc.).

The grant requires a match of $125,000. Staff is recommending that the grant match be allocated from the solid waste reserve fund. As the project progresses full implementation will require additional resources. The outline of work being pursued is similar to work completed in Mariposa County who previously received a similar grant and later secured a $5 million state grant for the project and then in partnership with a private sector technology company is moving forward.

Franchise Agreement

As noted above the current franchise agreement with Mammoth Disposal will expire in December 2019. The overall planned solid waste management program will require time and creativity in the development of a new agreement. While staff has had initial discussions with Mammoth Disposal,

the recent changes in both the District Manager and Regional Vice President will mean starting from a clean slate. This will take time and with the types of systems being considered the franchise agreement will have some unique elements.

To assist staff in moving this item forward, staff is requesting authorization to negotiate an agreement with HF&H Consultants. This firm was competitively selected for similar work in the Town of Truckee. Grady Dutton, Public Works Director has also previously worked with the firm. The firm has the capability, experience and expertise necessary to assist staff in preparing a new franchise agreement. A final agreement and full scope and cost will be brought back to Council for review and approval.

Work Program and Next Steps

The Town needs to look both at the short-term horizon with the pending closure of the landfill and to the long-term needs of managing solid waste in what is a changing and increasingly demanding legislative environment. The Town has the opportunity to lead in this area as well by adopting programs, processes and technologies that not only meet stated mandates but that can go further in meeting the overall goals of reduced GHG, local reuse of materials, local re-investment of materials, limited long-hauling of waste and establishing an economically viable waste management system. The work program includes taking both small and larger steps to achieve state mandates and goals and more.

Work Program

1) Continue to work with the USFS on potential locations for a larger (15-20 acres) transfer station site. Funding for this work was previously approved by Council.

2) Development of a new Solid Waste Franchise Agreement. Work effort to be supported by HF&H Consultants.

The following items will be further refined and be included the scope of work developed with EDS to provide added staff capacity.

3) Implementation of the work program as provided for in the Forest Service Wood Innovations Grant.

4) Development of an ongoing public information and outreach communications program to extend across new program development and implementation.

5) Initiate customer outreach program to enhance the collection of existing recyclables, reduce "bin" use through use of other systems (i.e. compactors, recycling systems), expand current programs and implement defined pilot programs.

6) Development of new programs with partners on organic collections (i.e. food collections, FOG, "Blue Bag") and implement organics processing system(s) (i.e. dehydration and composting).

7) Coordinate with Mammoth Disposal on equipment improvements and systems to enhance sorting capabilities of collected recyclable materials (clean MRF, C&D sorting etc.) now and in the future.

8) Develop the scope of work and program for the location, design, and development of the proposed integrated Green Transformation-Transfer Station.

The above work program will take a substantial amount of time and likely extend over a 24 month period of time. Regular updates will be provided to Town Council. Close coordination with partners (Mammoth Disposal, Sierra Conservation Project and Mono County) will be required. Final cost estimates will be provided with the proposed contractual agreements. The majority of funding is planned to come from the current Solid Waste Reserve funds, but some of the work may need to be programmed as part of the General Fund.

Recommendation

Staff is recommending Town Council take the following actions:

1) Allocate matching funds for the $250,000 Wood Innovations Grant in an amount of $125,000 from the solid waste reserve account;
2) Authorize staff to prepare an agreement with HF&H Consultants to assist with the Franchise Agreement Renewal with Mammoth Disposal, to be brought back to for final approval; and
3) Authorize staff to prepare an agreement with Environmental Diversion Solutions (EDS) to assist staff in the implementation of the defined work program, to be brought back to for final approval.