IN THE MATTER OF

MUNICIPAL REVIEW COMMITTEE, INC. AND	)	SOLID WASTE
FIBERIGHT LLC	)	LICENSE
HAMPDEN, PENOBSCOT COUNTY, MAINE	)	
SOLID WASTE PROCESSING FACILITY	)	
#S-022458-WK-A-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of the *Maine Hazardous Waste, Septage and Solid Waste Management Act*, 38 M.R.S. §§1301 to 1319-Y; the *Rule Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2 (last amended October 19, 2015); and the *Solid Waste Management Rules: General Provisions,* 06-096 CMR 400 (last revised April 6, 2015); *Water Quality Monitoring, Leachate Monitoring, and Waste Characterization*, 06-096 CMR 405 (last amended April 12, 2015) and *Processing Facilities,* 06-096 CMR 409 (last revised July 27, 2014), the Department of Environmental Protection ("Department") has considered the application of the MUNICIPAL REVIEW COMMITTEE, INC. and FIBERIGHT, LLC, with its supportive data, agency review comments, staff summary, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: The Municipal Review Committee, Inc. ("MRC") and Fiberight, LLC, ("Fiberight") have jointly applied to construct and operate a regional solid waste processing facility in Hampden, Maine.

B. History:

(1) The MRC is a non-profit organization comprised of 187 municipalities and inter-municipal entities in central, eastern and northern Maine that currently send their municipal solid waste ("MSW") to a waste-to-energy plant located in Orrington, Maine.

(2) The MRC was formed in 1991 to work with the waste-to-energy plant partnership to improve facility operations and economic performance. The MRC is governed by 9 directors elected by the membership.

(3) Fiberight is a privately held company founded in 2007 with current operations in Lawrenceville, Virginia. The company focuses on transforming post-recycled MSW and other organic feedstocks into next generation renewable biofuels.

(4) Fiberight is recognized by Maine's Bureau of Corporations, Elections and Commissions as a Foreign Limited Liability Company and it filed a Statement of Foreign Qualifications to Conduct Activities (Charter

#20150853FC) with a nature of the business described as the solid waste processing of trash into biofuels.

C. Summary of Proposal: The MRC and Fiberight have established a contractual agreement to construct and operate a regional solid waste processing facility in Hampden, Maine. The Application for a Solid Waste Processing Facility (hereinafter "Application") was prepared by CES, Inc. and is dated June 2015. The Application was subsequently revised with supplemental submittals with various dates. The proposed processing facility will accept and process MSW from numerous MRC member communities in central, eastern and northern Maine. The MRC and Fiberight also have an interest in accepting and processing MSW from in-state non-MRC communities that may decide to contract with the MRC and Fiberight. Pursuant to the provisions of 06-096 CMR 2(10), a pre-application meeting was held on March 19, 2015. On July 15, 2015, the Application was considered complete for processing.

2. PUBLIC PARTICIPATION

Written public comments were received by the Department including 5 requests for a public hearing pursuant to the provisions of 06-096 CMR 2(7)(A). The written public comments and public hearing requests were made available to the public via the Department's website.

A. Written Public Comments: Written comments were received from local residents, several municipalities, the Maine Resource Recovery Association, and the Natural Resources Council of Maine.

B. Public Hearing Requests: The Department received 5 requests for a public hearing. The requests included concerns regarding several components of the Application including but not limited to vernal pools, wetlands, a nearby stream, traffic, property values, air emissions, and the waste hierarchy. The Department determined that there was insufficient credible conflicting technical information regarding licensing criteria to support a public hearing. Based on the Commissioner's discretion, a public meeting was held on November 19, 2015 in accordance with the provisions of 06-096 CMR 2(8). The purpose of the meeting was to provide an overview and opportunity to comment on the joint applications filed with the Department.

3. PROJECT DESCRIPTION AND SITE DESIGN

The proposed project site is located within an approximate 90-acre parcel located east of the Coldbrook Road in Hampden, Maine. The construction of a new 4,460-foot long

road to provide access to the proposed project site from the Coldbrook Road is proposed on an additional 5-acre parcel of property. Department License #L-2647-NJ-A-N and #L-26497-TG-B-N, dated June, 2016, approved the construction of the proposed access road and utility corridor. Existing MRC member communities generate an average of 410 to 550 tons of MSW per day. The proposed processing facility is being designed to process 650 tons per day of MSW. Peak MSW delivery is estimated to be up to 950 tons per day to account for seasonal fluctuations.

The proposed processing facility will consist of a 144,000 square foot building that will provide for the receiving, storage and handling of MSW for processing and/or converting into recyclables, renewable fuels and residues for potential recycling and/or disposal off-site. The proposed processing building will contain a tipping floor designed to accommodate up to 2 days of inside storage capacity for raw MSW and 2 days of inside storage capacity for first cut material from which unsuitable waste such as textiles and large bulky items as well as 2 inch minus fines have been removed. A second sort system will separate curbside-type recyclables from the first cut material that has been processed through a continuous pulper which has pulped and removed the majority of the organic material ~~food waste and other soluble organics~~ in the waste stream as a biomass pulp. The separated biomass pulp will be further processed to remove the entrained soluble organics and food waste leaving a clean biomass pulp. The clean biomass pulp will be prepared for enzymatic hydrolysis where the cellulosic fraction will be converted to sugars. The MRC and Fiberight state that the food wastes, ~~and~~ other soluble organics and ~~will be converted to~~ sugars produced from the clean biomass pulp~~and~~ will all initially be converted to bio-methane, via an anaerobic digester, which is proposed to be piped into an existing natural gas pipeline owned by Bangor Natural Gas located adjacent to the project site. In the future, the sugars may be sold directly as industrial sugars subject to prevailing market conditions, or clean biomass pulp may be sold as a recycled product.~~.~~

Fiberight anticipates between 70 percent (%) and 80% by weight of all incoming MSW will be converted to renewable fuels or recycled, and the remaining 20% to 30% by weight will be process residues to be disposed off-site. In addition to residues and other unsuitable materials that will require off-site disposal, the MRC and Fiberight have planned for the disposal of MSW bypass waste expected to be generated during scheduled and unscheduled facility downtimes or for other unforeseen circumstances when the facility cannot accept and process MSW.

The Department finds that the MRC and Fiberight have adequately planned for site design; provided that, at least 30 days prior to commencing construction of the proposed access road and associated utility corridor and 60 days prior to commencing construction of the processing facility, the MRC and Fiberight submit a complete set of construction-

ready plans and documents for each component of the proposed project to the Department for review and approval.

4. TITLE, RIGHT, OR INTEREST

The MRC and Fiberight estimate that approximately 95 acres will be acquired, which includes a 90-acre parcel where the proposed processing facility will be constructed and a 5-acre parcel for the construction of a new 4,460-foot long access road. As outlined in the *Development Agreement*, dated February 4, 2015, between the MRC and Fiberight, the MRC will purchase and own, and/or otherwise secure long-term control of, the properties necessary for the proposed processing facility. Fiberight will retain ownership of the processing facility and will lease the property owned by the MRC as outlined in the *Development Agreement*. The MRC has acquired, and submitted as part of the application, an *Option to Purchase*, dated December 1, 2014, for the property necessary for the development of the proposed processing facility and access road from the properties current owners, H.O. Bouchard, Inc. and Hickory Development, LLC. The expiration date for the *Option to Purchase* is March 31, 2017.

The Department finds that the MRC and Fiberight have demonstrated adequate evidence of title, right, or interest in the properties for the proposed project site; provided that, the MRC and Fiberight submit a copy of the deed(s) or executed long-term lease agreement(s) for the properties purchased and/or leased for the development of the proposed project within 30 days after the closure of sale and/or execution of the long-term lease agreement(s).

5. NOTICE OF INTENT

The MRC and Fiberight have provided documentation of the publication of a "Notice of Intent to File" and have documented notification of abutters and other interested parties as required in 06-096 CMR 2. The Notice of Intent to File was made during June 2015. The application was accepted as complete for processing on July 15, 2015.

The Department finds that MRC and Fiberight have complied with all of the public notice requirements of 06-096 CMR 2.

6. FINANCIAL ABILITY

The MRC and Fiberight have made shared financial commitments to ensure necessary funding is available for the proposed project. The *Development Agreement*, mentioned in Findings of Fact ("FOF") #4 above, outlines the specific financial obligations for each party.

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A. MRC: In general, the MRC will be responsible for securing fee ownership or long-term control of the project site appropriate for development of the proposed project. Additionally, the MRC shall lease or sublease the project site to Fiberight under a long-term agreement having terms and conditions that support the development, financing, construction and operation of the processing facility, with appropriate oversight by the MRC.

Current cost estimates for portions of the development project for which the MRC has conditionally committed funding to have been provided including land acquisition; road and stormwater facilities; water and sewer utilities; natural gas utilities; and electric and telecom utilities. The total project cost estimate which the MRC has committed to funding is $4,230,000. The MRC will self-finance its share of the funding for the proposed project. The source of funds will be via a *Tip Fee Stabilization Fund* ("Fund"), which maintained a balance as of March 31, 2015 of $22,220,628. The MRC submitted a copy of a bank statement showing the Fund balance and a copy of its latest available audited financial statements. The MRC has committed to set aside up to $5,000,000 from the Fund to finance the land acquisition and infrastructure activities for which cost estimates are broken down above. No bonding or borrowing capacity is needed for the MRC to meet its financial commitment to the proposed project.

B. Fiberight: Current cost estimates for portions of the development project for which Fiberight will be responsible for include site development, foundations, concrete and building construction; machinery and equipment; steel, mechanical and electrical installation; and engineering, permits and project management. Total estimated capital costs for which Fiberight is responsible for is $66,976,786. Fiberight will also be responsible for the following estimated expenditures: annual operational costs; annual maintenance costs; and facility closure costs for a total cost of $12,700,000.

Fiberight has provided a letter of "Intent to Fund", dated December 18, 2015, from Covanta Energy, LLC ("Covanta") stating that Covanta is engaged with Fiberight to support the development, financing, construction and operation of the proposed processing facility. Covanta conducted a review of financial projections related to the project and executed a term sheet for a long-term strategic partnership with Fiberight. Covanta has reviewed the estimated budget for the proposed project, totaling approximately $67 million, and confirmed their interest in supporting Fiberight with project finance in the form of an equity investment in the proposed processing facility.

Covanta's letter is not intended to be a binding commitment to provide financing. A binding financial commitment is subject to successful completion of due

diligence activities; including, but not limited to, the proposed project receiving relevant Federal, State and local permits, and Fiberight entering into acceptable waste supply agreements with the MRC and its charter communities. Covanta's role in the proposed processing facility will be as an investor and operator. Covanta has supplied adequate evidence of its ability to fund the construction and operation of the proposed processing facility; however, the ultimate level of investment is still under consideration by Covanta. The intent is for Fiberight and Covanta to be joint investors in the proposed project.

C. Other: Letters of "Intent to Fund" were also provided by DTE Energy (dated June 11, 2015) and Argonaut Private Equity (dated June 17, 2015). In the event that either DTE Energy or Argonaut Private Equity is utilized for funding, their involvement with the proposed project will be in the form of project financing only, acting as a financial institution.

Once permits are issued, and prior to project construction, final evidence of the specified and sufficient amount of funds for each party will be provided to the Department in accordance with 06-096 CMR 400(4)(B)(2)(b)(i)(a).

The Department finds that the MRC and Fiberight have submitted adequate evidence of financial ability to finance the land acquisition and infrastructure (utilities and roadways) associated with the proposed project; provided that, the MRC and Fiberight submit, within 30 days of receipt and prior to beginning construction of the proposed processing facility, exclusive of the access road that is funded solely by the MRC, to the Department the finalized financial documents for the construction and operation of the proposed processing facility.

7. TECHNICAL ABILITY

The MRC and Fiberight have retained several consultants to support the design, construction, operation and maintenance of the proposed processing facility.

A. MRC: The MRC manages the affairs and concerns of their current 187 municipal members. The member-led MRC has successfully managed the current 30-year contract with the Penobscot Energy Recovery Corporation ("PERC") waste-to-energy facility, located in Orrington, Maine, since 1991. The MRC, on behalf of the Equity Charter Municipalities, purchased and manages a 23% ownership interest in the PERC facility. As part of this function, the MRC conducts the following: monitors the PERC facility's performance; reviews and votes on the facility's annual operating budget and decisions to invest in capital and major maintenance projects; and oversees actions taken and investments made to the

PERC facility to ensure that potential environmental impacts are avoided and mitigated appropriately.

B. Fiberight: Fiberight will be responsible for daily operations of the processing facility. Fiberight has demonstrated the technical ability to operate a similar, smaller scale MSW processing facility located in Lawrenceville, Virginia. The Fiberight team associated with the proposed processing facility is the same team responsible for the design and operation of Fiberight's demonstration facility in Virginia. Fiberight has submitted the résumés of those individuals responsible for the demonstration facility's design, construction and operation.

C. CES, Inc: CES, Inc. (CES) is an environmental consulting firm, with its headquarters located in Brewer, Maine, with experience in preparing applications for submittal to the Department. CES provided personnel to assist with permit application preparation, site investigation and site design for the proposed project. CES has also been retained by the MRC and Fiberight to provide on-going environmental compliance assistance when needed.

D. S.W. Cole Engineering, Inc: S.W. Cole Engineering, Inc. ("SW Cole") is an engineering firm with offices in Maine, New Hampshire and Vermont that provides construction materials testing and geotechnical services. SW Cole conducted sub-surface explorations to address soil suitability of the proposed project site and provided geotechnical engineering services pertaining to the construction of the foundation for the proposed processing facility building and associated structures.

E. Amec Foster Wheeler**:** Amec Foster Wheeler ("AMECFW") is a British multinational consulting, engineering and product management company with its global headquarters in London, England and branch offices worldwide and in the United States, including Portland, Maine. AMECFW has been retained to provide construction management services including contract scoping and preparation of contract packages, construction scheduling, project cost control, risk identification and management, quality assurance, contractor and construction site monitoring and on-site safety monitoring.

F. CommonWealth Resource Management Corporation: CommonWealth Resource Management Corporation (CRMC) is a management and environmental consulting firm focusing on issues and opportunities related to resource conservation, recovery and utilization. CRMC has been retained for general assistance related to the design, construction, operation and maintenance of the proposed processing facility.

G. University of Maine: The University of Maine (UMaine) is a public research university with a focus on undergraduate and graduate research throughout Maine and around the world. UMaine Chemical Engineering professors have been retained to perform a peer review of the technological processes associated with the proposed processing facility.

H. Covanta: Covanta has their corporate headquarters in Morristown, New Jersey and places of business in West Enfield and Jonesboro, Maine. Covanta has more than 30 years of experience converting MSW into clean renewable energy, recycling metals and other commodities, and helping communities meet their goals for environmental stewardship and sustainability. Covanta will support the development, financing, construction, operation, and maintenance of the proposed processing facility. Covanta's role in the proposed processing facility will be investor and operator.

The Department finds that the MRC and Fiberight and their retained consultants have provided adequate evidence of technical ability to design, construct, operate and maintain the proposed processing facility in a manner consistent with state environmental regulations; provided that, the MRC and Fiberight submit to the Department specific professional qualifications for personnel who will be responsible for operations at least 30 days prior to commencing pre-commissioning operations of the proposed processing facility.

8. DISCLOSURE OF CRIMINAL OR CIVIL RECORD

The MRC, Fiberight and Covanta have filed complete civil and criminal disclosure statements in accordance with 06-096 400(12)(A).

A. MRC: The MRC is a non-profit corporation formed in 1991 pursuant to State of Maine law whose managerial and executive authority rests with the MRC officers and directors. No officer or director holds any equity or debt in the business entity. The MRC will not have managerial or executive authority over the proposed processing facility. The MRC's officers and directors do not hold more than a 5% equity interest in any company that collects, transports, treats, stores, or disposes of solid or hazardous wastes and do not have any criminal convictions (except for one director who had a misdemeanor criminal conviction in 1991) or civil violations of environmental laws or rules administered by the State, other states, the United States, or another country in the last 5 years. Additionally, the MRC officers and directors have not entered into any administrative agreements or consent decrees or had administrative orders directed at them for violations of environmental laws administered by the Department, the State, other states, the United States, or another country in the last 5 years.

B. Fiberight: Fiberight is a Delaware limited liability company with a main office in Baltimore, Maryland. Managerial and executive authority rests with the Fiberight officers and directors. No officer or director holds any equity or debt in the business entity. Fiberight's officers and directors do not hold more than a 5% equity interest in any company that collects, transports, treats, stores, or disposes of solid or hazardous wastes and do not have any criminal convictions or civil violations of environmental laws or rules administered by the State, other states, the United States, or another country in the last 5 years.

In 2014, Fiberight's Chief Executive Officer entered into a Complaint and Consent Agreement/Final Order (Agreement) with the United States Environmental Protection Agency for alleged violations to Sections 301, 311 and 402 of the Clean Water Act, 33 U.S. Code §§ 1311, 1321 and 1342, and regulations promulgated thereunder. Under the terms of the Agreement, Fiberight paid a monetary penalty, updated their facility Storm Water Pollution Prevention Plan (SWPPP), conducted employee training regarding the SWPPP and utilized qualified personnel to conduct inspections, developed and implemented a Spill Prevention Control & Countermeasure (SPCC) Plan, conducted employee training regarding the SPCC Plan and disconnected a pipe that had once been the source of an uncontrolled discharge. No Additional Fiberight officers and directors have entered into any administrative agreements or consent decrees or had administrative orders directed at them for violations of environmental laws administered by the Department, the State, other states, the United States, or another country in the last 5 years.

C. Covanta: The MRC and Fiberight have submitted the disclosure information for Covanta's senior officers. Covanta's senior officers do not hold more than a 5% equity interest in any company that collects, transports, treats, stores, or disposes of solid or hazardous wastes and do not have any criminal convictions or civil violations of environmental laws or rules administered by the State, other states, the United States, or another country in the last 5 years. Additionally, senior officers have not entered into any administrative agreements or consent decrees or had administrative orders directed at them for violations of environmental laws administered by the Department, the State, other states, the United States, or another country in the last 5 years.

The Department finds that the MRC, Fiberight and Covanta have filed complete disclosure statements in accordance with 06-096 CMR 400(12)(A). Based on the disclosure statements submitted and the evaluation criteria contained in 06-096 CMR 400(12)(B), the Department finds no basis for denying the license.

9. TRAFFIC MOVEMENT

Traffic for the proposed processing facility will enter and exit at a single point of access located at the northeast corner of the project site. The processing facility entrance will be located at the end of a proposed 4,460-foot long access road which will enter onto the Coldbrook Road directly across from an existing truck facility access road. The proposed access road will be paved, approximately 30 feet in width (consisting of 2, 12-foot travel lanes with 3-foot shoulders), and end at a cul-de-sac at the proposed processing facility entrance. An Entrance Permit Application for the access road entrance onto the Coldbrook Road was submitted to, and a permit issued by, the Maine Department of Transportation ("MDOT") (Permit # 15947 – Entrance ID: 1, dated May 22, 2015). Sight distances for the proposed access road exceed the requirements of the MDOT Entrance Permit.

The main traffic associated with the proposed processing facility will be from incoming MSW deliveries and employees. Additional traffic components will include general deliveries, outgoing process residues and recyclables generated by the proposed processing facility, material deliveries related to the proposed processing facility and outgoing product deliveries from the proposed processing facility. Incoming MSW deliveries will enter and exit the proposed processing facility in trucks ranging from packer trucks to trailer trucks. The highest expected total of MSW deliveries to the proposed processing facility on any given day is 89, comprised of 53 packer trucks, 26 roll-off trucks and 10 trailers. A delivery will equate to 2 vehicle trips (1 entering and 1 exiting the facility). Employee, visitor and delivery traffic is expected to generate 168 total vehicle trips per day. Traffic from the shipment of outgoing process residues and recyclables and incoming material deliveries will vary.

A MDOT Traffic Movement Permit is not required because the proposed project's estimated overall traffic volume is less than 100 passenger car equivalents during the peak hour. The MRC and Fiberight estimate a peak traffic volume of 356 vehicle trips per day, spread throughout the entire day. The interior processing facility road network consists of employee and visitor parking lots and site roads varying from 2 to 3 lanes and various lengths. All interior roads will be paved. The speed limit of the interior roads will be 15 miles per hour. The MRC and Fiberight have provided information regarding haul routes, road characteristics and information regarding traffic accidents in the vicinity of the proposed project site in the last 3 years. No high crash locations were identified.

The Department finds that the MRC and Fiberight have made adequate provisions for safe and uncongested traffic movement of all types into, out of, and within the proposed project area.

10. FITTING HARMONIOUSLY INTO THE NATURAL ENVIRONMENT

A. General: The MRC and Fiberight have designed the proposed processing facility to fit harmoniously into the natural environment. CES has provided information related to any protected significant wildlife habitat, unusual natural areas, rare, threatened or endangered plant species, and protected natural resources. CES, on behalf of the MRC and Fiberight contacted the Maine Department of Inland Fisheries and Wildlife ("MDIFW") and the Maine Natural Areas Program to identify any of the above features.

B. Setbacks and Buffers: The MRC and Fiberight have stated that the areas to the north, east and south of the proposed processing facility will be maintained in their natural wooded condition. The proposed building site will be 4 to 5 feet lower than the surrounding grade to the west. The waste handling area at the proposed processing facility meets all the setbacks required by the Rules.

C. Wildlife and Fisheries: In March 2015, CES sent a letter to MDIFW requesting information for known locations of Endangered, Threatened, and Special Concern Species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the proposed project site. The MDIFW responded to CES in letters dated March 16, 2015 and March 18, 2015.

(1) Bats: With regard to information for known locations of Endangered, Threatened, and Special Concern Species, MDIFW stated that 7 out of 8 species of bats in Maine are currently listed as Species of Special Concern; however, 3 species of bats are currently being considered through the legislative process for protection under Maine's list of Threatened and Endangered Species. At the time of Application submittal, the Northern Long-eared Bat was listed as Endangered under the Federal Endangered Species Act (listed April 2, 2015). Subsequent to the Application submittal, the Little Brown Bat and Northern Long-eared Bat were listed as Endangered in Maine and the Eastern Small-footed Bat was listed as Threatened in Maine.

In consultation with the U.S. Fish and Wildlife Service ("USFWS"), an acoustical bat survey was developed in order to assess bat activity and to determine the presence, if any, of Northern Long-eared Bats within the

proposed processing facility site. The acoustical bat survey was conducted during the summer of 2015. The acoustical bat survey did not identify any federally protected bat species within the proposed processing facility site. The MRC and Fiberight have agreed to follow conservation guidelines for tree cutting, as outlined by USFWS in the interim Federal 4(d) Rule, effective May 4, 2015, to minimize potential impacts to listed bat species. An acoustical bat survey was not completed on the utility corridor; however, an acoustical survey of the utility corridor is planned for June 2016. The submittal to the Department of a forest management plan that contains provisions which will maintain the wildlife habitat functions and values is a condition of Department License #L-26497-NJ-A-N and #L-26497-TG-B-N. Construction activities will follow recommended management guidelines provided by the USFWS to minimize potential impacts to bat species.

(2) Vernal Pools: A comprehensive inventory of vernal pools was completed during spring 2015 and identified 44 vernal pools within the proposed processing facility site. ~~Eight~~ Nine pools met the Department's definition of significant vernal pool. Construction of the proposed access road will occur within 250 feet of one significant vernal pool. This significant vernal pool is designated as Pool #2632 according to the Department's Geographic Information System and VP 1-10 within the Application. Alteration of this vernal pool habitat was authorized under the Natural Resources Protection Act Permit by Rule Notification Form (PBR #59983) pursuant to Chapter 305 of the Department's Rules.

(3) Fisheries: With regards to fisheries habitat, the MDIFW made the following recommendations: a 100-foot undisturbed vegetated buffer be maintained along any mapped or unmapped streams; stream crossings should be avoided, but if necessary, the crossing should be designed to provide adequate fish passage; and Construction Best Management Practices ("BMPs") should be closely followed and that any necessary instream work or work within 100 feet of streams occur between July 15 and October 1. Consideration of MDIFW's recommendations was included in Department License #L-26497-NJ-A-N and #L-26497-TG-B-N.

(4) Deer Wintering Area: MDIFW stated that there is a large mapped Deer Wintering Area ("DWA") within the project search area. MDIFW staff walked the proposed processing facility site with CES staff and commented that a portion of the DWA has been selectively harvested within the last decade and a large amount of softwood cover that

characterizes a DWA was removed. MDIFW staff comments that while the specific location to be developed lacks suitable winter shelter habitat, areas located to the east of the proposed processing facility building site do provide appropriate winter shelter for deer. MDIFW recommends that the remaining undeveloped portions of the proposed processing facility site be protected and managed for winter shelter. MDIFW staff comments that a timber management plan that details the management actions necessary to maintain deer winter shelter areas should be drafted and become part of this longer term protection effort.

D. Unusual Natural Areas: The Natural Areas Program within the MDIFW did not find evidence of any rare or unique botanical features on, or adjacent to, the proposed project site. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities.

E. Protected Natural Resources: Natural resource work has been completed at the proposed project site. The MRC and Fiberight are proposing to impact a total of 105,000 square feet of forested wetland to construct the proposed processing facility, access road, and the utility corridor. The development of the proposed access road and processing facility building will require alterations to freshwater wetlands, significant wildlife habitat and other protected natural resources. Impacts to protected natural resources will be addressed by obtaining a permit pursuant to 38 M.R.S. § 480-A et *seq.*, as required. The MRC and Fiberight have submitted Natural Resources Protection Act permit applications to both the Department and U.S. Army Corps of Engineers.

In June 2016, the Department issued Department License #L-26497-NJ-A-N and #L-26497-TG-B-N approving the construction of an access road, utility corridor and alterations to freshwater wetlands, significant wildlife habitat and other protected natural resources on the proposed project site.

The Department finds that the proposed project will fit harmoniously into the surrounding environment; provided that, the MRC and Fiberight: (1) submit the results of the acoustical bat survey to be completed within the utility corridor; and (2) develop a timber management plan that details the management actions necessary to maintain deer winter shelter areas. The Department further finds that ~~at least 60 days~~ prior to commencing construction of the proposed processing facility, the MRC and Fiberight must submit the acoustical bat survey to be completed within the utility corridor and a timber management plan to maintain deer winter shelter areas.

11. AIR QUALITY

The proposed project site is buffered by existing forested areas and is approximately 3,400 feet away from the nearest existing residential building. The proposed processing facility is designed with multiple systems and procedures to minimize the generation of, and provide control of, objectionable and nuisance odors at any occupied building. All unloading of MSW will occur inside the proposed processing facility building. In order to minimize the number of waste delivery trucks in the parking lot at one time, the tipping floor is designed to accommodate 1 transfer trailer and 3 packer trucks simultaneously. The primary operational control for nuisance odors is minimizing the quantity, and the duration, of time that MSW sits on the tipping floor. The tipping floor is designed with storage capacity for approximately 2 days of MSW receipts and 2 days of primary processed material. The MRC and Fiberight will utilize the principle of "First-in-First-Out" operation to the maximum extent possible to minimize the residence time of waste on the tipping floor. The tipping floor and processing portion of the building will be maintained under constant negative pressure by using a multiple hood/intake register air handling system. The air handling system will draw air from inside the building and treat it in either of 2 scrubber systems. One of the scrubbers will be operated at all times when MSW is present on the tipping floor. Both scrubbers will be operated when the high-speed fabric overhead doors used for truck entry or exit are open.

A Start-Up, Shutdown and Malfunction Plan has been developed that includes provisions for odor control during times when processing operations must be limited or suspended to perform equipment maintenance. The MRC and Fiberight have also established an Odor Complaint Response Plan that outlines procedures for odor complaint reporting, should they occur, and subsequent response actions including the use of an odor neutralization agent. As part of the operations of the proposed processing facility, regular odor inspections will be performed. Inspections will include, at a minimum, visual observation of the operations for obvious signs of damage or abnormal conditions within the proposed processing building that will affect collection efficiency of the odor control system and a visual inspection and odor survey around the exterior of the proposed processing facility.

The MRC and Fiberight have stated that during the first month of, and for a total of 6 months during, the first year of operation, a daily inspection and odor survey will be conducted around the proposed processing facility. The daily inspection period will include the summer months when waste odors are expected to be strongest. If operations commence in the winter months and no odor issues are identified during the first month, inspections will be reduced to weekly until the onset of warmer weather. If after 6 months, including summer months, no odor issues are identified then inspections will be reduced to weekly. Inspection results will be submitted to the Department weekly unless an odor incident is noted in which case the Department will be notified within the day. A

summary of the odor survey reports will be submitted to the Department with the facility's annual report.

The MRC and Fiberight have submitted an application to the Department for a Minor Source Air License to address potential fugitive emissions from the proposed 2 biomass boilers, other fuel burning equipment and process equipment. The other fuel burning equipment includes a thermal oxidizer and flare. The details of this license can be found in Department License #A-1111-71-A-N, dated June, 2016.

Fugitive dust is not expected to be an issue. All travel ways and parking areas will be paved and no bulk material handling operations will occur outside the proposed processing building. Should fugitive dust emissions occur beyond the property boundary, the processing facility operator will assess the source of the dust and clean the travel ways and, if necessary, spray water to control dust.

The MRC and Fiberight propose to use 2 cooling towers to promote evaporative cooling of waste heat. The MRC and Fiberight have proposed the installation of drift eliminators to minimize any emissions of particulate that may occur. This is not expected to be a sufficient quantity to cause localized fog banks or icing beyond the property boundaries and should not unreasonably alter climate in the area of the processing facility.

The Department finds that there will be no unreasonable adverse effects on air quality and/or climate due to the proposed project.

12. SOIL SUITABILITY AND EROSION CONTROL

A subsurface investigation was completed by SW Cole to evaluate whether soil bearing capacity is sufficient to support the proposed processing facility and associated outdoor storage components. SW Cole concluded that based on the subsurface findings, the construction of the processing building appears feasible from a geotechnical standpoint. SW Cole provided geotechnical recommendations pertaining to the building's footings and on-grade floor slab and perimeter footings and the need for underdrains near footing grade and adjacent to paved areas. The recommendations have been incorporated into the building design. SW Cole also recommended that a contingency be made for the possible removal of bedrock via drilling or blasting.

The MRC and Fiberight have submitted an Erosion and Sedimentation Control Plan including an inspection and maintenance plan. Any proposed work will be carried out in conformance with the approved erosion and sedimentation control plan, the construction contract documents, and the Maine Erosion and Sediment Control Field Guide for Contractors, March 2015 or its equivalent.

The Department finds that the proposed processing facility will be constructed on soils suitable for the proposed use and will not cause unreasonable sedimentation or erosion of soil. The Department also finds that the MRC and Fiberight have adequately addressed erosion and sediment control for the proposed project, and have demonstrated that the proposed project will be carried out in conformance with the approved erosion and sediment control plan, the construction contract documents, and the Maine Erosion and Sediment Control Field Guide for Contractors, March 2015 or its equivalent.

13. SURFACE WATER QUALITY AND FLOODING

The proposed project site is not located within a 100-year flood plain and is not located within a direct watershed of a waterbody most at risk from new development. A 25-year, 24-hour storm event was modeled to determine the necessary detention and outlet sizing requirements for the proposed project site. The proposed building site will be located on an undeveloped and mainly wooded parcel of land approximately 90 acres in size in the Town of Hampden. Shaw Brook is classified as an Urban Impaired Stream and is located approximately 3,000 feet to the west of the parcel. Runoff from the site generally drains to a large forested wetland area to the south of the parcel before eventually draining to the Penobscot River. Runoff does not drain to Shaw Brook.

The proposed project will be built over a portion of previously undeveloped land and will add approximately 9.7 acres of developed area to the site. The project area will be treated with a combination of 3 vegetated under-drained soil filters and a roofline drip edge filter. All of these treatment measures discharge toward the south and west ends of the project site before re-joining the pre-development flow paths. The results of the post development analysis for the project site indicate that there is a reduction in runoff from the summation points, and that all of the stormwater treatment measures are sized adequately to handle stormwater runoff from 2, 10 and 25-year storm events. There are no anticipated adverse impacts to the downgradient areas, and as a result the development will have no unreasonable effect on run-on, run-off, and/or infiltration relationships on-site or on adjacent properties.

The Department finds that the proposed processing facility will not have an unreasonable adverse effect on surface water quality and will not unreasonably cause or increase flooding on the proposed facility site or on adjacent properties nor create an unreasonable flood hazard to any structure.

14. EXISTING USES AND SCENIC CHARACTER

The proposed building site includes an approximate 90-acre wooded parcel of land established as an industrial zone by the Town of Hampden. The proposed processing facility will be located approximately 0.25 miles from I-95 to the north, 0.8 miles from

the Coldbrook Road to the west, 0.7 miles from the Ammo Industrial Park to the east and 1 mile from Route 202 to the south. The project site will be 4 to 5 feet lower than the surrounding grade to the west of the facility. The remainder of the project site is surrounded by a natural wooded buffer to the north, east and south. This buffer will be retained and will provide a visual screen to the north, east and south. There are no airport runways located within 10,000 feet of the existing site, no historic properties, and the existing site is located greater than 2,000 feet from the nearest established public viewing area. A portion of a neighboring property from the southwest to southeast is currently zoned as rural by the Town of Hampden. There are 2 residential subdivisions located approximately 3,400 feet to the south of, but not abutting, the proposed site.

The noise generated from the routine operation of the proposed processing facility must be less than or equal to 70 A-weighted decibel (dBA) for daytime and 60 dBA for nighttime hours at the facility property boundary. There are no protected locations within or in the vicinity of the project site's property boundary. As it relates to this Application, the applicable noises in the thresholds are limited to routine operations of the proposed processing facility. As a result, all applicable noise generating equipment will be located inside the proposed processing building and at no time will processing activities take place outside.

The Department finds that the proposed project will not have an unreasonable adverse effect on existing uses or scenic character. The Department also finds that the proposed project will not result in increased noise levels beyond the proposed project site's property boundary.

15. ADEQUATE PROVISIONS FOR UTILITIES

A. Water: The proposed processing facility will be served by the Town of Hampden Water District ("Hampden WD"), which is a municipal water supply and supplies potable water to the surrounding community. During steady state operation, the proposed processing facility will require an average water demand of ~~72~~360,000 gallons per day ("gpd") with a peak flowrate of 300 gallons per minute ("gpm"). During maintenance periods, which could occur 3 to 4 times per year, the processing facility will require a maximum water demand of 132,000 gpd with a peak flowrate of 275 gpm, to fill various components in the processing system. The initial fill of the processing system will require approximately 3,500,000 gallons of water, completed over a 30-day period. The Hampden WD provided a letter, dated May 13, 2015, which states it has the capacity and capability to meet the proposed flow requirements.

B. Wastewater: The MRC and Fiberight estimate that the processing facility will discharge an average daily flow of 150,000 gallons of domestic and process

wastewater into the Town of Hampden's (Hampden) municipal sanitary sewer collection system, which is sent for treatment to the City of Bangor's Wastewater Treatment Plant ("Bangor WWTP"). The Bangor WWTP provided an updated letter (dated February 17, 2016) related to the estimated 150,000 gpd of wastewater to be generated by the proposed processing facility. Bangor WWTP states that it has capacity, at this time, to accept this additional flow during non-combined sewer overflow conditions. Further, the Bangor WWTP states that "alternative arrangements such as on-site storage or trucking to alternative sites" needs to be made during combined sewer overflow conditions.

In a March 30, 2016 Memo, CES assumed the need to provide on-site storage of 300,000 gallons or two times the estimated average daily flow. The MRC and Fiberight have proposed the installation of a 150,000 gallon aboveground tank and 100,000 gallon belowground tank and the utilization of 50,000 gallon buffer storage in an already designed process water storage tank. CES notes that the tank construction materials are still being evaluated and will be determined during final design.

Bangor WWTP also requires the user to provide the treatment plant with an Industrial User Permit Application and a Pretreatment Survey and Disclosure Form prior to discharging any effluent to their treatment system. Should it be determined that, for any reason whatsoever, adverse effects are noted or anticipated at the Bangor WWTP, the user shall be required to pre-treat wastewater discharge to acceptable levels. If the Pre-Treatment Survey shows that the proposed processing facility requires a pre-treatment system for its wastewater, the Bangor WWTP must approve the pre-treatment system prior to installation.

C. Solid Waste: The MRC has entered into a Solid Waste Disposal Agreement, dated August 15, 2015, with the Waste Management Disposal Services of Maine Crossroads Landfill in Norridgewock, Maine, to accept "MSW Bridge Capacity" waste (defined as MSW, brought to the facility between April 1, 2018 and the start of commercial operations, that cannot be processed), solid waste process residue, and MSW bypass waste for disposal. The MRC and Fiberight estimate a range between 30,000 to 40,000 tons per year of process residue waste and biomass boiler ash will require disposal. In addition, the MRC and Fiberight have made provisions for the disposal of an estimated 37,500 to 50,000 tons per year of MSW bypass waste to address any bypass events that may be necessary.

The Department finds that the MRC and Fiberight have provided for adequate utilities and will have no unreasonable adverse effect on existing or proposed utilities in the municipality or area served by utilities; provided that: (1) the MRC and Fiberight submit

copies of the Bangor WWTP Industrial User Permit and letter approving the operation of a wastewater pre-treatment system, if necessary, to the Department within 30 days of their receipt and (2) the MRC and Fiberight submit, for review and approval, the final design for the on-site wastewater storage tanks at least 60 days prior to construction of the proposed processing facility.

16. GROUNDWATER QUALITY

The proposed project site does not overlie a significant sand and gravel aquifer. The closest mapped aquifer is approximately 4,000 feet to the northwest of the proposed project site. Unprocessed and processed MSW will be stored inside the proposed processing building. Residue materials, bypass waste and biomass boiler ash will be stored in trailers and transported off-site to a licensed, secure landfill for disposal. Recyclable materials will be stored on-site in either 100 cubic yard transport trailers or 40 cubic yard dump trailers. No unprocessed or processed materials will be stored outside on the ground.

The Department finds that the proposed processing facility will not pose an unreasonable threat to the quality of a significant sand and gravel aquifer and will not result in unreasonable adverse effects on groundwater quality.

17. PROCESS DESIGN

A. General: The proposed processing facility consists of 4 different processing stages which will process the MSW received into several different categories. The 4 different processing stages are: materials recovery; renewable fuel production; renewable energy production; and industrial co-products. A series of process benchmarks has been established that will be used to evaluate the proposed process during various stages of project implementation as described below.

B. Materials Recovery Facility (MRF): The first stage in the process (primary MRF) is to remove large bulky items prior to the MSW being loaded into the primary trommel. ~~a low torque shredder which opens and empties the bags of trash.~~ Unwanted large bulky items will be removed on the tipping floor and on a pre-sort line and loaded on a trailer and transferred for disposal at a licensed landfill facility. The MSW is then fed to the primary trommel which opens and empties the bags of trash and size separates the material into over 12 inch and 12 inch and under. ~~The MSW is then conveyed through a series of screens to create different sized fractions.~~ The 12 inch and under material is then further size separated by a fines screen to ~~Materials~~ 2 inches or less in size, ~~–~~ which fraction continues through to the fines processing area for further processing. The over 2 inch to 12 inch material is stockpiled and subsequently. ~~Materials larger than 14 inches~~

~~continue on to be hand sorted for recycling or disposal. The remaining sorted material, along with recovered material from the fines processing area, is~~ conveyed ~~in~~to a drum pulper that breaks the organic material down to form a biomass, which ~~to~~ facilitates separation of the recyclable materials from ~~the biomass~~organic wastes, and prepares the biomass for further cleaning.~~and allows for removal of any fine contamination, the recovery of soluble organics and resulting cellulosic pulp~~.

Materials exiting the drum pulper~~The Ppulped material~~ pass~~es~~ across a screen to separate ~~the~~recove r ~~r~~ recyclables, such as metals and plastics from the biomass pulp. These recyclable materials ~~which~~ are then conveyed~~routed~~ to the MRF to be further processed. The remaining biomass pulp is conveyed to a two-stage washing system to remove fine contaminants (mostly plastics) and soluble organic material. ~~The homogeneous organic fiber is conveyed into a two-stage continuous washing process that further screens contaminants and separates the organic fraction.~~ The first-stage wash removes soluble organic material and pumps ~~the~~ high chemical oxygen demand wastewater to a pre-acidification tank prior to entering the high-rate anaerobic digester for biogas production. The second-stage wash dilutes the remaining material, where filters are used to separate out the fine cellulose from the remaining contaminants. The washed cellulose is then pumped into a stock tank. From the stock tank, the cellulose pulp is pumped as slurry into a screw press where it is de-watered to approximately a 50% solids press cake which ~~will~~is then ~~. Washed fibers exit the system and are pumped to~~ be pre-treated ~~for~~ prior to being introduced to the hydrolysis system.

C. Renewable Fuel Production: The enzymatic hydrolysis stage starts when the dewatered pulp is conveyed to the pretreatment system~~reactor~~ whereby water and acid is added into a pretreatment mixer so the appropriate solids concentration and pH is obtained. Slurry from the pretreatment mixer is then pumped to the pretreatment reactor. Fiber exiting the pretreatment reactor is pumped to a medium consistency refiner and then to a screw press to be dewatered, and filtrate is returned to the mix tank. P~~The p~~retreated fiber press cake is conveyed to the ~~an enzymatic~~ hydrolysis system~~digester~~.~~.~~ ~~–~~The pretreatment reactor, pumps, filtrate tank and screw press are connected to a Clean-in-Place ("CIP") system for regular cleaning and sterilization. The hydrolysis process is carried out within a high viscosity digester paired with a set of mixing tanks. The pretreated fibers enter the mixing tanks along with water and enzymes,~~.~~ and ~~The~~ wetted fibers circulate through the hydrolysis tank where cellulose within the fiber is converted to sugars on a batch basis.

Temperature and pH are controlled to achieve an optimum mixture which is left in the digester where the low-temperature biological process is completed. Each digester, pump, heat exchanger and mixing vessel is connected to a CIP system for regular cleaning and sterilization. A filter press is utilized to separate the undigested post hydrolysis solids ("PHS") from the liquid sugar solution. ~~The undigested solids are slurried and passed to the water treatment plant.~~ The sugar solution will either be ~~is~~ pumped to an evaporator where it is concentrated for storage to be shipped and sold as industrial sugar or will be fed directly to the anaerobic digester for conversion into biogas. The condensate recovered from the evaporator is stored and used as make-up water for the digestion process.

D. Renewable Energy Production: The renewable energy production stage begins when the high organically loaded liquid is cooled and sent to an anaerobic digestion system. This system uses microorganisms to digest suspended and dissolved solids contained in the water to reduce the chemical oxygen demand of the water. Clean water and a methane-rich biogas are the byproducts of the stage. The clean water is reused in the washing process. The biogas will be used as supplementary fuel for internal energy production via a boiler and/or injected into a natural gas pipeline. Bangor Natural Gas has provided a February 10, 2016 letter stating that a section of pipe between Bangor and Hampden needs to be upgraded and that upgrades including testing will be completed prior to facility start-up.

Process water recovered from the water treatment system is used to dilute solids in the pulp and wash systems to maintain desired moisture content. A portion of the recovered water is sent to the CIP storage tank. The PHS exiting the hydrolysis filter presses~~solids from the water treatment plant~~, which is essentially spent fiber with a high lignin content, is~~are~~ processed in a specially designed combustion unit. The heat (steam) from the combustion process is recovered and sent to a steam turbine. The exhaust heat from the turbine is then used to provide process heat. The amount of electrical and heat energy generated by the biomass combustion is sufficient to provide the bulk of the energy demand for the proposed processing facility. The proposal to produce fuel grade ethanol is no longer part of the proposed processing facility project.

Plant water management is conducted via a recycling and reuse system. Purge water from the washing system and from the cook filtrate tank~~, diluted solids from the sugar recovery and stillage from distillation~~ are blended together. ~~The solids are removed using a belt press and a~~Any residual fine suspended material is removed using a dissolved air flotation ("DAF") system with ~~. T~~the highly organic liquid created ~~is~~ sent to the anaerobic digester and the solids exiting the DAF removed using a belt press. The solids extracted with the belt press, in the

form of cake, are routed via conveyor to be disposed of offsite~~sent to the biomass boiler~~.

E. Industrial Co-products: The resultant products generated at the proposed processing facility will include recyclables which will be sold on the open commodities market; Clean Cellulose which will be sold on the open commodities market if not consumed through hydrolysis; ~~post hydrolysis solids (~~"PHS"~~)~~ which will be used to fuel the on-site biomass boilers; bio-methane which will be piped to the adjacent Bangor Natural Gas Loring Pipeline; and biomass fuel (industrial sugar) which may be sold on the open commodities market depending on contractual, market, and operational conditions. The resultant residue waste products generated at the processing facility will include materials typically 2 inches or less in size (glass and grit), large bulky items, dissolved air filtration system residues and combined boiler ash.

F. Process Benchmarks: The MRC and Fiberight have proposed operational benchmarks in a submittal dated June 2, 2016 that include evaluating the proposed process during pre-commissioning, commissioning, start-up and ramp-up. The completion of each benchmark stage will be documented with process improvements proposed as necessary.

(1) The pre-commissioning phase will include verification that systems have been installed in accordance with the applicable specifications, calibration of electrical and instrument controls, equipment alignment and energizing the electrical systems.

(2) The commissioning phase will include verification that each system can run independently and for increasing time periods.

(3) The start-up phase includes start-up of all plant systems to ensure that the systems perform in an integrated fashion. During this phase, initial volumes of MSW will be processed. Once successfully processed, MSW volumes will be increased in a stepwise fashion.

(4) The ramp-up stage includes increasing the volumes of MSW to full-scale loading. This phase is projected to occur for approximately 4 months.

The Department finds that the MRC and Fiberight have submitted adequate information regarding the proposed processing facility and process design; provided that, confirmation of natural gas pipe upgrades and testing and a finalized agreement with Bangor Natural Gas is provided to the Department at least 30 days prior to conveying bio-methane into the pipe.

18. OPERATIONS MANUAL

The MRC and Fiberight have submitted a draft operations manual for the proposed processing facility. Department staff issued final comments on April 28, 2016 regarding the draft operations manual. CES proposes to finalize the operations manual and provide it as a stand-alone document to the MRC and Fiberight after Department review and approval of the document has been completed.

The Department finds that the MRC and Fiberight have submitted an operations manual that addresses the operating requirements of 06-096 CMR 409(4); provided that, an updated operations manual is prepared and submitted for Department review and approval at least 60 days prior to full-scale operations which incorporates Department comments from an April 28, 2016 memorandum and process or equipment changes resulting from pre-commissioning, commissioning, start-up and ramp-up activities.

19. WASTE CHARACTERIZATION

Waste residues that will require initial and on-going characterization prior to final disposal include biomass boiler ash and miscellaneous process residues resulting from the dissolved air floatation water treatment system. With respect to the ash characterization, the Department has requested that the MRC and Fiberight evaluate 4 roll-off containers of ash as part of the initial characterization. The MRC and Fiberight will collect composite ash samples for each of the 4 roll-off containers as part of the characterization process. Samples will be collected from the fly ash and bottom ash conveyors at specific intervals while each roll-off is being filled. The MRC and Fiberight expect the turnaround time for the analytical tests will be approximately 7 days. The MRC and Fiberight estimate that it may need to store up to 9, 30-yard roll-off containers during the initial ash characterization phase. Full roll-off containers will be stored within the proposed processing building as space allows. If the number of roll-offs exceeds the proposed processing building's capacity for inside storage, the excess roll-offs will be stored outside on the paved parking lot while waiting for receipt of laboratory analytical results. Roll-off containers that are stored outside while awaiting laboratory analytical results will be tarped to prevent infiltration of rainwater. After the initial characterization period, the MRC and Fiberight anticipate being able to store the ash roll-offs indoors.

With respect to the dissolved air floatation process residues, during normal operating conditions the MRC and Fiberight expect to generate process residues at a rate of approximately 1 to 2 roll-offs daily. During initial characterization, these residues will be stored in 30-yard roll-off containers inside the proposed processing building as space allows. If the generation rate of the process residues exceeds the ability of the MRC and Fiberight to store the containerized waste indoors, the excess roll-offs will be tarped and

stored outside on the paved parking surface until the MRC and Fiberight receive analytical results from the laboratory. After the initial characterization period, the MRC and Fiberight anticipate being able to store the waste roll-offs indoors.

The Department finds that the MRC and Fiberight have adequately addressed the waste characterization requirements of 06-096 CMR 405(6)(C) in Section E of its draft operations manual submitted with the Application.

20. SOLID WASTE MANAGEMENT HIERARCHY

A. General: 38 M.R.S. § 2101 establishes that it is the policy of the State to "plan for and implement an integrated approach to solid waste management" through an order of priority that places waste reduction, reuse, recycling, composting, and processing before land disposal as a "guiding principle in making decisions relating to solid waste management". Further, 06-096 CMR 409(2)(C) requires the recycling or processing of all waste accepted at the facility to the maximum extent practicable, but in no case at a rate less than 50%.

B. Reduction: ~~The proposed processing facility will serve to remove recyclables currently not being removed from the waste stream and convert remaining organics into renewable fuels. To that end, the MRC's and Fiberight's planned system is expected to divert additional materials from the waste stream and will overall reduce the volume of MSW residues requiring land disposal.~~

The MRC and Fiberight have supported and will continue to support the existence and incorporation of programs to encourage waste reduction at the source. MRC and Fiberight have demonstrated support for further waste reduction, reuse and recycling through the establishment of an express right, in the municipal contracts for MSW delivery to Fiberight, for municipalities to have the option to expand existing or future programs intending to encourage further reduction, reuse and recycling of MSW generated within its borders. ~~These are~~Waste reduction programs are implemented at the local level by municipalities in order to reduce the quantity of waste being generated ~~and~~that require~~ings~~s municipal collection, ~~and~~transfer, transportation ~~reduce the~~ and disposal costs ~~associated with waste disposal~~. The MRC and Fiberight are committed to ensure that any further arrangements supporting the development of the proposed processing facility will avoid business arrangements, such as minimum tonnage delivery guarantees set at levels that are too high or with insufficient flexibility, that might undermine or conflict with municipal efforts to reduce the amount of waste generated within their borders.

C. Reuse: MRC communities currentlyalready sponsoer Ppprograms to encourage waste reuse are implemented at the local level by municipalities with an emphasis on education, outreach, book exchanges, swap shops, donation of textiles and technical assistance to residents and the incorporation of local waste reuse programs. The MRC and Fiberight are committed to ensuring these existing programs remain in place.

D. Recycling: Existing MRC municipalities already currently sponsor a wide variety of local programs to collect, and process and market recyclables through the operation of curbside collection programs, and drop-off programs, andoften in connection with the operation of transfer stations and other facilities. The measures described above to support waste reduction and reuse programs will also serve to support the incorporation of local recycling. Recyclables that are not captured at the local level will subsequently be captured at the proposed processing facility. The proposed processing facility will serve to remove recyclables currently not being removed from the waste stream and will convert remaining organics into renewable fuel products. To that end, the MRC's and Fiberight's planned system is expected to divert a significant amount of additional materials from the waste stream and will overall reduce the volume of MSW residues requiring land disposal. This is the first of two significant step increases in materials management offered by the Fiberight system compared to the existing system that strengthens conformity to the waste management hierarchy. Capturing thesignificant new quantities of recyclables on a regional level at a central processing facility significantly increases the quantity of recyclable materials collected, processed and marketed and provides a new level of recycling service beyond that of existing local level programs.

E. Composting/Organics Management: Composting, and other methods of processing biodegradable materials is currently being accomplished on the local level through backyard, local and/or regional composting or anaerobic digestion programs. Despite the success of a significant number of local organics composting and diversion programs, the quantities of organics remaining in the waste stream remains the largest fraction of waste stream.D This large fraction of the incoming MSW waste stream will be converted into renewable fuel products and/or biogas. This additional recycling of organics, which represents a second significant step increase in improved conformity with the waste management hierarchy compared to the existing system. Due to the proposed processing facility's expected capability to convert biodegradable waste into high value fuel products, the MRC and Fiberight are expecting some local programs may voluntarily select to transition their organics management activities to the proposed processing facility.

F. Waste Processing: The MRC and Fiberight have calculated that between 70% and 80% by weight of all incoming MSW will be recycled and processed at the proposed processing facility. As part of each year's annual report, the MRC and Fiberight will need to demonstrate that all wastes accepted at the proposed processing facility have been recycled or processed into fuel for combustion to the maximum extent practicable, but in no case at a rate of less than 50%.

G. Land Disposal: The MRC and Fiberight noted that the availability of secure landfill disposal capacity is an integral part of the development of an integrated system for solid waste management in accordance with the hierarchy of management methods described above. The MRC and Fiberight estimate that between 20% and 30% by weight of all incoming waste will result in process residue that will require landfilling. The process residue includes bulky waste, textiles, dissolved air filtration system residues and combined boiler ash. In addition, landfill disposal capacity will also be necessary for scheduled and unexpected shutdowns of the processing facility. The MRC and Fiberight have entered into a Solid Waste Disposal Agreement with the Waste Management Disposal Services of Maine Crossroads Landfill in Norridgewock, Maine, to accept MSW Bridge Capacity waste, solid waste process residue, and MSW bypass waste for disposal.

The Department finds that the MRC and Fiberight have adequately addressed solid waste management consistent with the State's Solid Waste Management Hierarchy pursuant to 38 M.R.S. § 2101.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The MRC and Fiberight have planned for site design; provided that, the MRC and Fiberight submit, for Department review and approval, a complete set of construction-ready plans and documents for the proposed access road and associated utility corridor at least 30 days prior to commencing construction and a complete set of construction-ready plans and documents for the proposed processing facility at least 60 days prior to commencing construction.

2. The MRC and Fiberight have provided adequate evidence of title, right, or interest in the properties for the proposed project site; provided that, the MRC and Fiberight submit a copy of the deed(s) or executed long-term lease agreement(s) for the properties purchased and/or leased for the development of the proposed project within 30 days after the closure of sale and/or execution of the executed long-term lease agreement(s).

3. The MRC and Fiberight have complied with all of the public notice requirements of 06-096 CMR 2.

4. The MRC and Fiberight have provided adequate evidence of financial capacity to design, construct, operate, maintain and close the proposed processing facility in a manner consistent with state environmental regulations; provided that, the MRC and Fiberight submit, within 30 days of receipt and prior to beginning construction of the processing facility, exclusive of the access road that is funded solely by the MRC, finalized financial documents to fund construction, operation, maintenance and closure of the proposed processing facility.

5. The MRC and Fiberight, and their retained consultants, have provided adequate evidence of technical ability to construct and operate the proposed processing facility in a manner consistent with state environmental regulations; provided that, the MRC and Fiberight submit to the Department adequate evidence of the technical abilities for any additional personnel who will be responsible for operations at least 30 days prior to commencing pre-commissioning operations of the proposed processing facility.

6. The MRC and Fiberight have made adequate provisions for safe and uncongested traffic movement of all types into, out of, and within the proposed project area.

7. The MRC and Fiberight have made adequate provisions for fitting the development harmoniously into the existing natural environment; provided that, the MRC and Fiberight: (1) submit the results of the acoustical bat survey to be completed within the utility corridor; and (2) develop a timber management plan that details the management actions necessary to maintain deer winter shelter areas. The acoustical bat survey and timber management plan will be submitted ~~at least 60 days~~ prior to commencing construction of the proposed processing facility

8. There will be no unreasonable adverse effects on air quality and/or climate due to the proposed project.

9. The proposed processing facility will be constructed on soils suitable for the proposed use and will not cause unreasonable sedimentation or erosion of soil. The MRC and Fiberight have adequately addressed erosion and sediment control for the proposed project, and have demonstrated that the proposed project will be carried out in conformance with the approved erosion and sediment control plan, the construction contract documents, and the Maine Erosion and Sediment Control Field Guide for Contractors, March 2015 or its equivalent.

10. The proposed processing facility will not have an unreasonable adverse effect on surface water quality and will not unreasonable cause or increase flooding on the proposed

facility site or on adjacent properties nor create an unreasonable flood hazard to any structure.

11. The proposed processing facility will not have an unreasonable adverse effect on existing uses or scenic character and will not result in increased noise.

12. The MRC and Fiberight have provided for adequate utilities and will have no unreasonable adverse effect on existing or proposed utilities in the municipality or area served by utilities; provided that: (1) the MRC and Fiberight submit copies of the Bangor WWTP Industrial User Permit and letter approving the operation of a wastewater pre-treatment system, if necessary, to the Department within 30 days of receipt and (2) the MRC and Fiberight submit, for review and approval, the final design for the on-site wastewater storage tanks at least 60 days prior to construction of the proposed processing facility.

13. The proposed processing facility will not pose an unreasonable threat to the quality of a significant sand and gravel aquifer and will not result in unreasonable adverse effects on groundwater.

14. The MRC and Fiberight have submitted adequate information regarding the proposed processing facility and process design; provided that confirmation of natural gas pipe upgrades and testing and the finalized agreement with Bangor Natural Gas is provided to the Department at least 30 days prior to conveying bio-methane into the pipe.

15. The MRC and Fiberight have submitted an operations manual that addresses the operating requirements of 06-096 CMR 409(4); provided that, an updated operations manual is prepared and submitted at least 60 days prior to full-scale operations to incorporate Department comments from an April 28, 2016 memorandum and process or equipment changes resulting from pre-commissioning, commissioning, start-up and ramp-up activities.

16. The MRC and Fiberight have adequately addressed the waste characterization requirements of 06-096 CMR 405(6)(C) in their operations manual.

17. The MRC and Fiberight have adequately addressed solid waste management consistent with the State's Solid Waste Management Hierarchy (38 M.R.S. § 2101).

THEREFORE, the Department APPROVES the noted application of the Municipal Review Committee and Fiberight, LLC SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The applicable Standard Conditions of Approval, a copy attached as Appendix A.

2. The invalidity or unenforceability of any provision, or part thereof, of this license shall not affect the remainder of the provision or any other provisions. This license shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

3. At least 30 days prior to commencing construction of the access road and associated utility corridor and at least 60 days prior to commencing construction of the proposed processing facility, the MRC and Fiberight shall submit a complete set of construction-ready plans and documents for each component of the proposed project to the Department for review and approval.

4. Within 30 days after the closure of sale and/or the execution of the long-term lease agreement(s) has occurred, the MRC and Fiberight shall submit a copy of the deed(s) or executed long-term lease agreement(s) for the properties purchased and/or leased for the development of the proposed project.

5. Within 30 days of receipt and prior to beginning construction of the proposed processing facility, the MRC and Fiberight shall submit to the Department the finalized financial documents to fund construction, operation, maintenance and closure of the proposed processing facility.

6. At least 30 days prior to commencing pre-commissioning operations of the proposed processing facility, the MRC and Fiberight shall submit to the Department adequate evidence of the technical abilities for personnel who will be responsible for operations of the proposed processing facility.

7. At least 30 days prior to conveying bio-methane into the natural gas pipe, the MRC and Fiberight shall submit to the Department confirmation of pipe upgrades and testing and the finalized agreement with Bangor Natural Gas.

8. ~~At least 60 days p~~Prior to commencing construction of the proposed processing facility, the MRC and Fiberight shall submit the acoustical bat survey of the utility corridor and a timber management plan to maintain deer winter shelter areas.

9. Within 30 days of receipt, the MRC and Fiberight shall submit the Bangor WWTP Industrial User Permit and letter approving the operation of a wastewater pre-treatment system, if necessary, and within 60 days prior to construction of the proposed processing facility, the MRC and Fiberight shall submit, for Department review and approval, the final design for the on-site wastewater storage tanks.

MUNICIPAL REVIEW COMMITTEE, INC. AND	30	SOLID WASTE
FIBERIGHT LLC	)	LICENSE
HAMPDEN, PENOBSCOT COUNTY, MAINE	)	
SOLID WASTE PROCESSING FACILITY	)	
#S-022458-WK-A-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

10. At least 60 days prior to commencing full-scale operations, an updated operations manual which incorporates Department comments from an April 28, 2016 memorandum and process or equipment changes resulting from pre-commissioning, commissioning, start-up and ramp-up activities shall be submitted to the Department for review and approval.

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PAUL MERCER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

Date of initial receipt of application: June 24, 2015
Date of application acceptance: July 15, 2015

Date filed with Board of Environmental Protection:

XLP79433/