

ATTACHMENT 1

Method 2 Application

IV. COMPANY INFORMATION

Application Submission Date:	
Company Name: Highwater Ethanol, LLC	
Mailing Address: 24500 US Highway 14	
City: Lamberton	
State / Province: MINNESOTA	Postal/Zip Code: 56152
Country (if outside of the U.S.):	
Contact Person: Shane Rasset	
Title: Environmental, Health and Safety Manager	
Phone: 507-752-6160	Fax: 507-752-6162
Mobile Phone:	Email Address: Shane.Rasset@highwaterethanol.com
Company Website URL: www.highwaterethanol.com	
U.S. EPA Company ID:	
Facility (Plant) Geographical Coordinates: Latitude: 44.230318 Longitude: -95.299133 or Universal Transverse Mercator (UTM) Coordinates: UTM Zone: 15T Easting (E): 316382m Northing (N): 4900024m	

V. FACILITY INFORMATION

Facility No	Facility Name	Facility Address	City	Zip Code	State or Province	Country
1	Highwater Ethanol, LLC	24500 US Highway 14	Lamberton	56152	Minnesota	USA
2						
3						

V. FACILITY INFORMATION (Cont'd)

Facility No	Contact Person Name	Title	Phone/Fax	Mobile Phone	Email	US/EPA Facility ID	Nameplate Capacity (MGY)
1	Shane Rasset	Environmental, Health and Safety Manager	507-752-6160		Shane.Rasset@highwaterethanol.		50
2							
3							

Note: If you have more than three facilities, please attach extra sheets.

VI. CONSULTANT INFORMATION

Consultant's Name: Chandler Taylor, Barr Engineering Company	
Position/Title: Vice President	
Consultant Company Address: 4700 W. 77 th Street	
City: Minneapolis	
State / Province: MINNESOTA	Postal/Zip Code: 55435
Phone: 952-832-2621	Fax: 952-832-2601
Mobile Phone: 952-250-7644	Email Address: ctaylor@barr.com
Consultant's Company Website URL: www.barr.com	

VII. PATHWAY INFORMATION

a. Enter pathway application type. Applicants are encouraged to discuss their pathway application types with ARB staff before completing this section. Please check one box only.	
<input checked="" type="checkbox"/> Method 2A: Pathway	<input type="checkbox"/> Method 2B: New Pathway
b. Please provide a brief description of the proposed pathways, emphasizing the important innovations and/or distinctive characteristics associated with the proposed pathway or sub-pathway. All proposed Method 2A or 2B pathways must be listed in part VIII.	
<p>The Highwater Ethanol, LLC pathway is similar to reference pathway ETHC004 - Midwest; Dry Mill; Dry DGS, NG - however, energy use (natural gas and power) at the plant is less per gallon produced than in the reference pathway, and ethanol yield per bushel of corn is higher than the reference pathway.</p>	

VIII. METHOD 2 PATHWAY INFORMATION

1. For Method 2A applications, enter all reference pathway information. The “reference pathway” is the existing fuel pathway to which the proposed new sub-pathway is most closely related. The carbon intensity (CI) of the proposed pathway described in this application must be lowered by at least 5 gCO₂e/MJ than the carbon intensity of the reference pathway. Show all pathway information exactly as it appears in the LCFS Lookup Table. If you have more than five reference or proposed pathways, please attach extra sheets.

Reference Pathway(s):

Fuel Type	Pathway ID	Brief Pathway Description	Carbon Intensity (CI) Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total CI Values
Natural Gas	ETC004	Midwest; Dry Mill; Dry DGS, NG	68.40	30	98.40

VIII. METHOD 2 PATHWAY INFORMATION (Cont'd)

2. Enter the proposed fuel pathway information in the following table. The carbon intensity (CI) of the proposed pathway described in this Method 2A or 2B application must be lowered by at least 5 gCO₂e/MJ than the carbon intensity of the reference pathway identified in item 1 above.

Proposed Pathway(s):

Fuel Type	Brief Pathway Description	Carbon Intensity (CI) Values (gCO ₂ e/MJ)		
		Direct Emissions	Land Use or Other Indirect Effect	Total CI Values
ETHCXXX	Midwest; Dry Mill; Dry DGS, NG with Highwater Ethanol-specific energy use factors	55.9	30	85.9

3. Compositional differences (if any) between the fuel produced by the new proposed pathway or sub-pathway and the reference pathway identified in item 1 above.

The new proposed pathway has lower natural gas use and power use, and higher ethanol yield than the reference pathway.

IX. PATHWAY SUPPLEMENTAL QUESTIONS

Annual volume of fuel produced using the proposed new pathway that would enter the California market (MGY): 20 MGY									
If the facility is not currently operating at full production capacity, when is full operational capacity expected? Facility is operating at full production capacity.									
Does the applicant expect this volume to be achieved by a single or by multiple facilities?									
<input checked="" type="checkbox"/> A Single Facility	<input type="checkbox"/> Multiple Facilities								
If the applicant expects this volume to be achieved by multiple facilities, would all facilities be owned by a single firm?									
<input type="checkbox"/> A Single Firm	<input type="checkbox"/> Multiple Firms								
Lower Heating Value (LHV) of the fuel to be produced from the new pathway (MJ/gal): 80.5 MJ/gal									
The range of production volumes over which the proposed pathway carbon intensity value is valid. The values reported below must be supported in the documentation accompanying this application.									
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Production Volume Range</i></th> <th style="text-align: center;"><i>Fuel Volume (MGY)</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><i>Lower Bound</i></td> <td style="text-align: center;">50</td> </tr> <tr> <td style="text-align: center;"><i>Upper Bound</i></td> <td style="text-align: center;">58</td> </tr> <tr> <td style="text-align: center;"><i>Average Volume</i></td> <td style="text-align: center;">54</td> </tr> </tbody> </table>		<i>Production Volume Range</i>	<i>Fuel Volume (MGY)</i>	<i>Lower Bound</i>	50	<i>Upper Bound</i>	58	<i>Average Volume</i>	54
<i>Production Volume Range</i>	<i>Fuel Volume (MGY)</i>								
<i>Lower Bound</i>	50								
<i>Upper Bound</i>	58								
<i>Average Volume</i>	54								
Please provide any information that may be helpful in determining the land use change impacts (if any) of the proposed pathway. Although it is ARB's responsibility to perform all land use change impact analyses, the applicant may provide any information that may be useful to the ARB in completing that analysis.									
There are no expected land use change impacts of the proposed pathway as compared to the reference pathway.									

X. APPLICANT SUBMITTAL CHECKLIST

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<p>Listed below are the documents and files that may be submitted in support of a Method 2 application. Check the box to the left of each document or file type included in your submittal. After each submittal category is a check box labeled “includes confidential business information (Title 17, CCR, § 95486(f)(3)(B)1). Check that box if the submittal category contains any information the applicant considered to be a trade secret. In the actual submittal, the specific information falling into the confidential business information category must be clearly marked. Additional information regarding the submission of trade secrets can be found in the Instructions above.</p>	
<input checked="" type="checkbox"/>	Pathway life cycle analysis report (required). <div style="text-align: center;"><input checked="" type="checkbox"/> <i>Includes confidential business information</i></div>
<input checked="" type="checkbox"/>	CA-GREET model results (please submit the CA-GREET spreadsheet) (required). <div style="text-align: center;"><input checked="" type="checkbox"/> <i>Includes confidential business information</i></div>
<input checked="" type="checkbox"/>	All operating permits issued by the local air pollution control authority (required).
<input checked="" type="checkbox"/>	One or more process flow diagrams covering the complete production process, including all inputs (feedstocks, process energy, etc.) and outputs (finished fuel, co-products, wastes, etc.) (required). <div style="text-align: center;"><input checked="" type="checkbox"/> <i>Includes confidential business information</i></div>
<input checked="" type="checkbox"/>	A comprehensive list of all stationary combustion-powered equipment associated with the production facility. List entries should name the equipment, briefly describe its function, identify the fuel or fuels used, and quantify fuel use on a per-gallon-of-finished-fuel-produced basis (required). <div style="text-align: center;"><input checked="" type="checkbox"/> <i>Includes confidential business information</i></div>
<input type="checkbox"/>	Equipment technical specifications. <div style="text-align: center;"><input type="checkbox"/> <i>Includes confidential business information</i></div>
<input type="checkbox"/>	Production process schematics, technical drawings flow diagrams, maps, or other graphical representations (other than/in addition to the required process flow diagram). <div style="text-align: center;"><input type="checkbox"/> <i>Includes confidential business information</i></div>
<input type="checkbox"/>	Engineering reports. <div style="text-align: center;"><input type="checkbox"/> <i>Includes confidential business information</i></div>
<input type="checkbox"/>	Technical papers or journal articles <div style="text-align: center;"><input type="checkbox"/> <i>Includes confidential business information</i></div>

X. APPLICANT SUBMITTAL CHECKLIST (Cont'd)

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<input type="checkbox"/>	Emissions monitoring data or emissions modeling results. <input type="checkbox"/> <i>Includes confidential business information</i>
<input checked="" type="checkbox"/>	Spreadsheets, data files, and similar files documenting the calculations behind the fuel life cycle analysis. <input checked="" type="checkbox"/> <i>Includes confidential business information</i>
<input checked="" type="checkbox"/>	All operating permits issued by the local air pollution control authority (required).
<input type="checkbox"/>	Other: In the space below, describe any additional submittals. Rationales for documents submitted or omitted may also be provided. <input type="checkbox"/> <i>Includes confidential business information</i>

XI. APPLICANT DISCLOSURE

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<p>By my signature below, I confirm that, to the best of my knowledge, the fuel pathway CI for which I am applying accurately reflects the actual pathway CI for that fuel, and that I will only label fuel volumes with this CI when the actual CI is equal to or less than the approved LCFS pathway CI.</p> <p><i>Instructions:</i> Please complete the "Name," "Title," and "Date" fields below. Then print, sign, and scan only this page. The completed application form and separate signed "Applicant Disclosure" page can then be submitted electronically to ARB.</p>	
Name: Brian Kletscher	Title: CEO/General Manager
Signature:	Date: