

Bonner/Milltown/West Riverside Wastewater System Improvements Feasibility Study

Public Meeting No. 4 | December 6, 2016

HDR Engineering- Coralynn Revis, Dan Harmon, and Lizzy Adams



01 Introduction and Review

02 Ranking Process

03 Recommended Wastewater System

04 Moving Forward



01 Introduction and Review

Sewer Feasibility Study

What are the benefits?

What are the costs?

What is your preference?



Bonner Milltown Community Council

Formed May, 2006 by vote of residents

The Council is advisory to the County Commissioners and has no independent authority

Service area is the same as Bonner School District

5 members with staggered 3yr terms, 1 or 2 elected each year

Meets at Bonner School, 7PM, second Monday every month

Why was the feasibility study started?

Landowners requested Council involvement



Council requested County study



Commissioners selected HDR
engineering firm

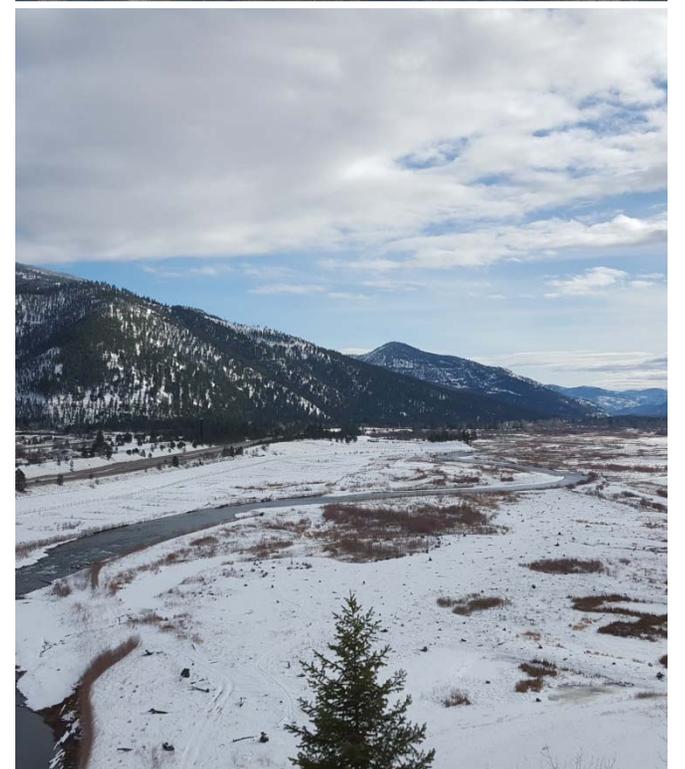
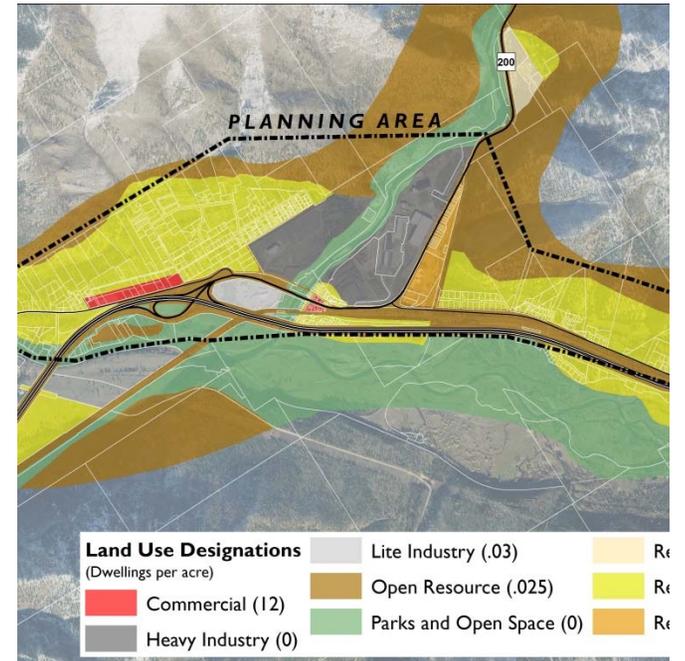


Please respect our meeting ground rules:

- Save questions/ comments for the end
- Silence Cell Phones
- Respect Others – Don't Interrupt
- Raise Hand And Wait To Be Recognized Before Speaking
- Keep Comments On Business, Not Personal
- Limit Comments To 3 Minutes
- No Side Conversations – Need To Talk, Take It Outside

Review of Public Meetings No. 1, 2, 3

- Explained drivers for the study
- Established study area
- Reviewed existing population
- Reviewed zoning and land use data
- Presented Alternatives
 - *No Action*
 - *Connect to City of Missoula System*
 - *Single centralized WWTP*
 - *Multiple clustered, community wastewater systems*
- Presented Costs
- Inquired about Community Ranking Criteria



Planning Area





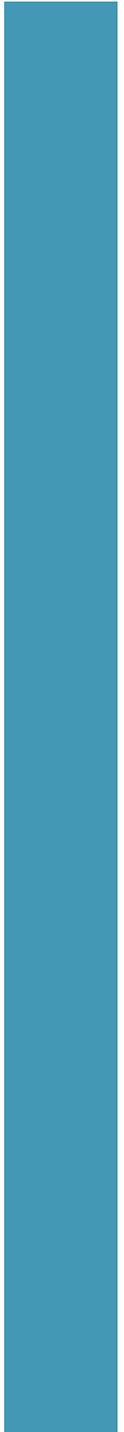
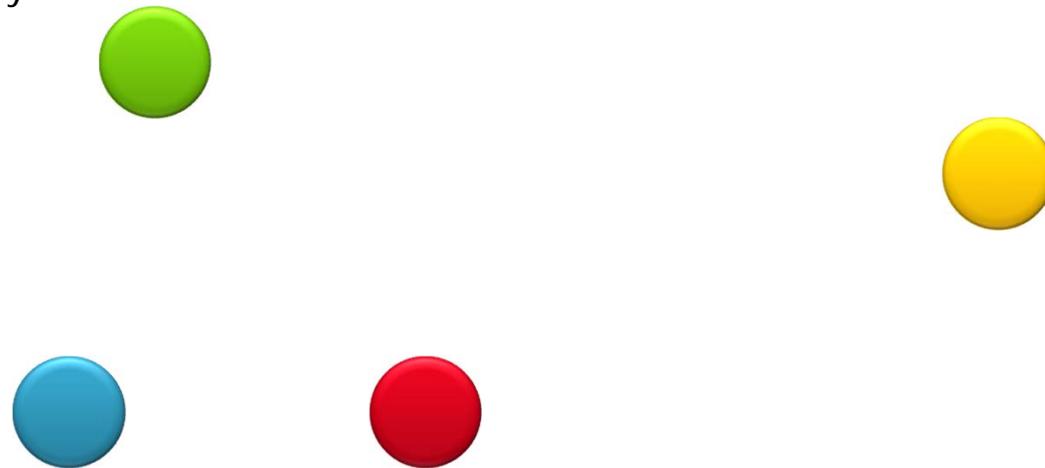
02

Ranking Process

Community Input Alternative Screening Process

Weighted Value on these Criteria

- Capital Cost
- O&M Cost
- Water Quality
- Constructability
- Independence from City of Missoula



Constructability

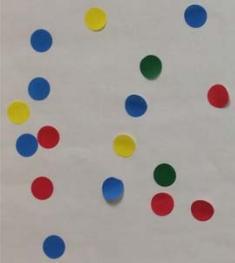


O&M Cost

(Operation & Maintenance)



Water Quality



Capital Cost



Independence from
City of Missoula



Pros and Cons of Alternatives

	No Action	Forcemain to East Missoula	Membrane Bioreactor	Advantex/Presby
Pros	May be cost effective depending on individual situations	No need to create own district Cost effective	Highest treatment level Smallest area Cost effective	Can be phased/clustered Cost effective collection
Cons	Water quality impacts Issues with selling home Development and improvements limited on many parcels	Negotiations with the City All at once	Create and maintain own district All at once	Less cost effective for whole area Maintain septic O&M Issues with meeting DEQ non-degradation standards

Alternatives with Community Weighted Multiplier

	<i>Weighted Multiplier</i>	No Action	Connect to City of Missoula	Single MBR	Clustered System with Drainfield
Low Capital Cost	10	10	6	5	7
Low O&M Cost	2	3	7	8	3
Water Quality	3	0	9	10	5
Constructability	1	3	1	2	8
Independence	4	5	1	10	8
Weighted Score		129	106	138	131

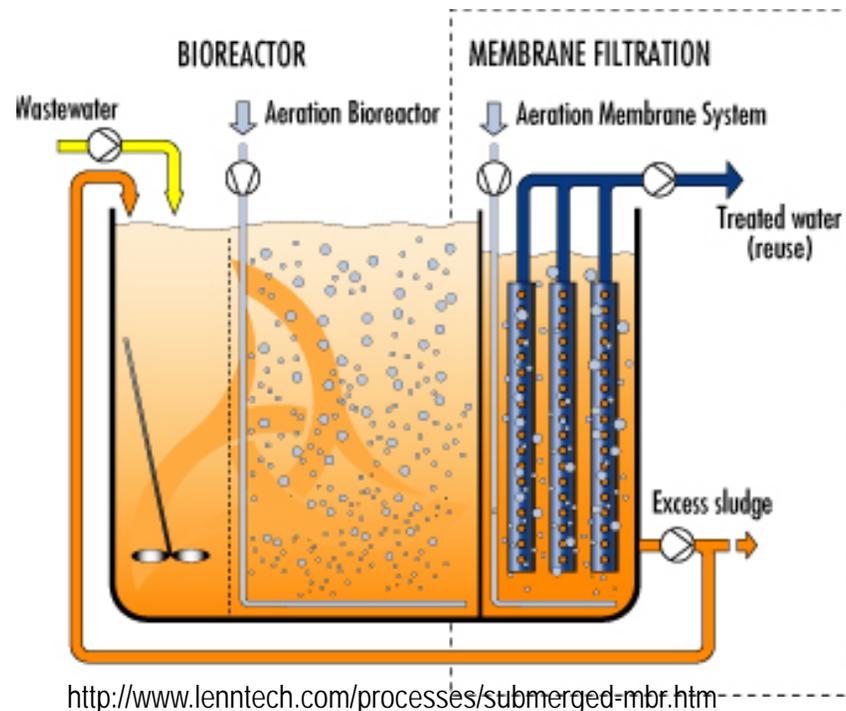


03 Recommended Wastewater System

Professional Recommendation: Centralized Wastewater Treatment Facility

- A Membrane Bioreactor
 - Treated to a higher level than septic tank
- Groundwater discharge
 - Location of infiltration beds
 - Land application rates
 - Area needed is 3-5 acres
- Surface water discharge
 - Possible use of MPDES discharge permit to Blackfoot River from the Bonner Property Development
 - Only a portion of the flow

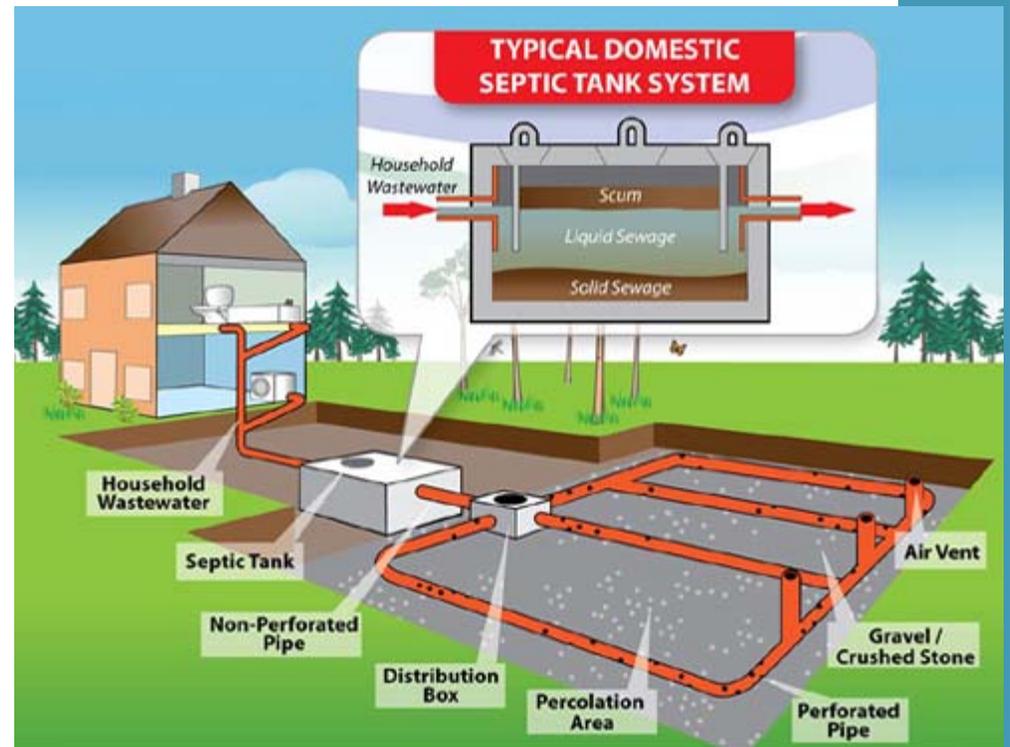
Total Capital Cost	\$ 30.4 M
Collection System	\$ 24.7 M
MBR, I/P Beds	\$ 5.7 M
20-Year O&M	\$ 2.4 M
20-Year Present Worth	\$ 32.8 M
Monthly Cost per EDU	\$75



Perceived Community Preference: No Action

- Evaluated as “status quo”
- Evidence of groundwater impact (0.1 to 6 mg/L Nitrate)
- Does not exceed drinking water standard (10 mg/L Nitrate)
- Limits increased use on properties
- Failures and improvements up to individual landowner
- 100' well separation
- Difficulty financing property sale
- *Deed Restrictions*

Total Capital Cost	\$ 0 – Unknown
20-Year O&M	\$ Unknown
20-Year Present Worth	\$ Unknown

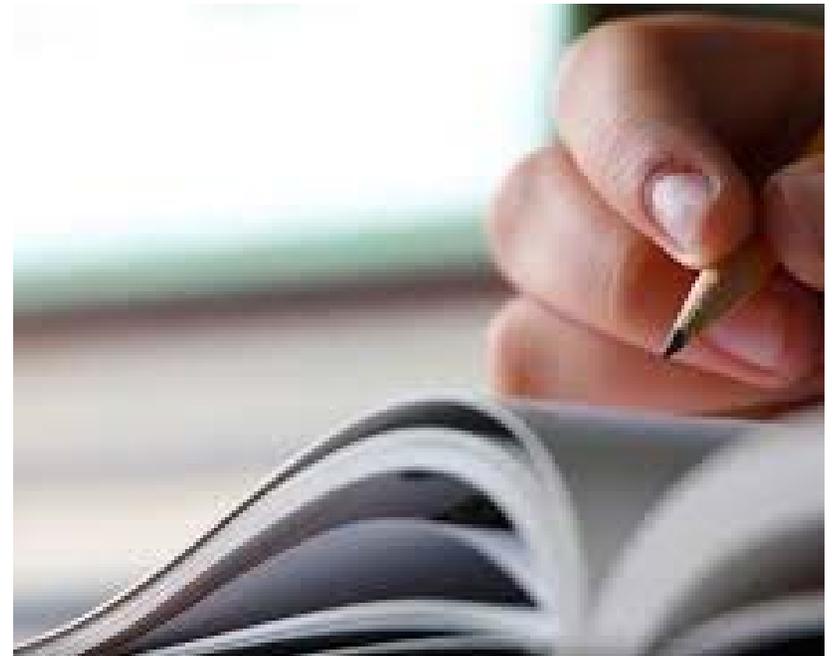




04 **Moving Forward**

Finalizing the Study

- Incorporate Community Input from criteria ranking
 - <http://www.missoulacounty.us/government/public-works/public-works>
 - Amy Rose email address: arose@missoulacounty.us
- Finalize feasibility study with a recommendation
- Written study to Missoula County for review



County and HDR have no future plans for moving forward beyond this study

Steps a Community member could take...

- Talk to County Commissioners
- Talk with your neighbors
- Attend Bonner Community Council Meetings
- Test your drinking water for your own safety
 - Bacteria and nitrates
 - Test kits and bottles available from the Health Department
- Visit nearby wastewater sites for education
- Pump your septic tank regularly (every 3-5 years)



If you would like to be included on the Community Council's e-mail notification list, please put your name and address on one of the forms available on the tables.

Thank you for attending and participating!

The fourth and final public meeting for the sewer feasibility study will be December 6, 6PM, Bonner School

Bonner Milltown Community Council web page, including minutes and Agendas: <http://www.missoulacounty.us/community/community-councils/bonner-milltown-community-council>

QUESTIONS?

