

## **Draft Guidance for Conducting and Developing Affordability Finding**

### **Requirement:**

Section 644.145 RSMo requires DNR to make a “finding of affordability” when “issuing permits under” or “enforcing provisions of” state or federal clean water laws “pertaining to any portion of a combined or separate sanitary sewer system or publicly-owned treatment works”:

Therefore, the department will conduct an affordability review and develop a finding in connection with permit functions (new permits, renewals, and modifications) and/or enforcement actions for municipal systems (not for private systems).

Where permit modifications, permit renewals, or sewer extensions do not impose new requirements and/or do not require rate increases, the affordability finding may receive a less detailed review as described below. Permits that do not include new requirements may be deemed affordable.

The department must consider the following criteria as the basis for the finding:

- 1) A community’s financial capability and ability to raise or secure necessary funding.
- 2) Affordability of pollution control options for the individuals or households of the community.
- 3) An evaluation of the overall costs and environmental benefits of the control technologies.
- 4) Ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. Include consideration of; a) allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations, and; b) allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained.
- 5) An assessment of other community investments relating to environmental improvements.
- 6) An assessment of factors set forth in EPA guidance, including but not limited to the “CSO Guidance for Financial Capability Assessment and Schedule Development” that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards.
- 7) An assessment of any other relevant local community economic condition.

On a case by case basis, it may be beneficial for DNR staff to have input from the entity (permittee or party being enforced upon) and staff may request information relevant to or necessary to develop the finding.

### Format for the Affordability Finding:

A draft format to consistently present an affordability finding is included as Attachment 1. **This initial guidance is for an in-depth full review. Specific tools and instructions to differentiate between types of permits and enforcement actions may be developed and refined in the future – especially for those actions that do not require an in-depth analysis to develop an affordability finding.**

### Gathering Data and Developing the Affordability Finding:

- **Basic Information** – Staff should identify the entity involved and describe with reasonable specificity the permit or enforcement action for which the finding is being developed. This should typically include a description of the new permit requirements, or the requirements being enforced, and a range of anticipated costs related to such requirements, in order to explain the context for the finding and its scope. Location information and a description of any unique geographic boundaries may also be important if the permit covers multiple (or partial) jurisdictions. Normally this information is contained in the permit or relevant enforcement documents. For some statistics, it may be necessary to calculate weighted averages to best represent the customer base. It may also be helpful to identify the customer base broken down to the number of residential and commercial hookups.
- **First Criteria** – assess a community’s financial capability and ability to raise or secure necessary funding.

Staff should first consider whether the entity has already identified or secured funding (such as a combination of reserves and/or revenue stream from existing fees; an existing loan; existing bond financing) sufficient to complete the project. If funding has already been secured, the entity has already met the first criteria and an appropriate statement should be inserted into the finding document.

In the case of a line extension or permit modification that does not require a rate increase, staff should insert an appropriate statement such as “This is a voluntary request for a line extension that does not involve any significant costs for the permittee or require changes to the rate structure. Therefore, the financial capability exists.”

If the entity has not yet secured funding, staff should gather key data to indicate whether the capacity exists to raise capital.

- Identify Current User Rate (suggest using rate per 5,000 gallons)
- Rate Capacity or Pay as You Go Option

- Municipal Bond Rating (if available)
- Bonding Capacity  
*(General Obligation Bond capacity allowed by constitution:  
cities=up to 20% of taxable tangible property  
sewer districts=up to 5% of taxable tangible property)*
- Current Outstanding Debt (suggested source – most recent financial statements) Other upcoming bonds or debt as may be identified by the entity.
- Existing Grants
- Other factors

- **Second Criteria** – assess the affordability of pollution control options for the individuals or households of the community.

Staff should consider whether the entity's existing reserves and rate structure is sufficient to finance the project and/or to service any loans or bonds that may be needed. If so, the entity has already met the second criteria and an appropriate statement should be inserted into the finding document.

If the project will likely require a rate increase, staff should utilize the "residential indicator" as identified in EPA's *CSO Guidance for Financial Capability Assessment and Schedule Development*. Regardless of whether the project is for a CSO community, the framework provided in this guidance is a useful mathematical tool that can be applied to other projects. See pages 12 through 19 - <http://www.epa.gov/npdes/pubs/csofc.pdf> It is the department's intention to develop an Excel format and links to data that will help staff more easily apply this tool. We will need to identify a method/approach to estimating the cost of capital (a conservative approach to assume a market rate).

In the case of a line extension or permit modification that does not require a rate increase, staff should insert an appropriate statement such as "This is a voluntary request for a line extension that does not change the existing pollution control options."

- **Third Criteria** - An evaluation of the overall costs and environmental benefits of the control technologies.

Staff should identify environmental benefits of the project and an estimate of the project costs. Staff may utilize a cost estimate matrix based on design peak flow for various technologies. Permit writers may include a cost range for a particular requirement for the purpose of the affordability analysis and compliance schedule timeframe determination. The actual cost should be reflected in the facility plans.

**Comment [pw1]:** Any grant money they already have committed to a WW project. In many situations, this is the only way a community can afford a project.

**Comment [pw2]:** You should also add a bullet/discussion about grant availability – what is DNR, USDA, or CDBG providing to communities? Since many small communities need grants to make a project affordable, the availability of any grant moneys will factor in significantly.

**Comment [pw3]:** The CSO guidance document does not appear to be a useful tool in all instances, especially for small, rural towns. The residential indicator only looks at MHI. There are many other factors (government assistance; school lunch; population age; unemployment; etc., that provide a more refined view of the economic state of the community. Use the CSO guidance as a guide to develop Missouri's tool, not as the document to do the calculations.

**Comment [pw4]:** Staff should also look at impacts the project will cause ( i.e. greater energy demands to meet strict limits, need to properly dispose of sludge that now may be more contaminated than before; also need to consider what other worthwhile environmental project the proposed permit requirement will put off...)

In the case of a line extension or permit modification that does not change the control technologies, staff should insert an appropriate statement such as “This is a voluntary request for a line extension that does not change control technologies.”

- **Fourth Criteria** - Ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. Include consideration of; a) allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations, and; b) allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained.

**Comment [pw5]:** This must include the possibility of a Use Attainability Analysis. EPA’s regulations include economic factors in determining whether a use or water quality criteria is appropriate for a water body.

Staff should identify measures of distressed populations to include statistics on the following:

- Unemployment – Use most representative data (city specific when available – county data when more appropriate or city data is not available)  
<http://www.missourieconomy.org/pdfs/urel1112.pdf>
- Median Household Income -  
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
- Population growth/decline – Compare data from the three most recent US Census 2010 Census Data -  
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>  
2000-2009 Data -  
<http://www.census.gov/popest/data/cities/totals/2009/tables/SUB-EST2009-04-29.xls>  
1990 Census Data –  
<http://www.census.gov/prod/cen1990/cp1/cp-1-27.pdf>  
Link to historic population for incorporated places in Missouri from Missouri Census Data Center at University of Missouri - <http://mcdc.missouri.edu/trends/tables/cities1900-1990.pdf>
- Poverty –  
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

Staff should examine projects and may identify potential suggestions for cost savings in narrative statements.

Particularly where medium/high financial burdens will result from the permit or enforcement action, staff should consider adjusting implementation schedules as a possible method of reducing financial burden.

**Comment [pw6]:** Staff should wait until all 7 criteria have been evaluated before concluding that a schedule needs to be extended. Simply extending a compliance schedule will do nothing to make projects more affordable for communities with declining economies (declining income, declining population, job loss, increasing median age, etc.). The department should also consider that most projects that will be required by new permits must be built complete and operational, and cannot be built over time (a UV system must be built complete; reduction of I&I can be extended out over a long period of time).

In the case of a line extension or permit modification that does not require a rate increase, staff should insert an appropriate statement such as “This is a voluntary request for a line extension that will not require changes to the rate structure. Therefore, there are no new economic impacts to distressed populations.”

- **Fifth Criteria** - An assessment of other community investments relating to environmental improvements

Staff should identify any items they are aware of that may impact the community’s ability to raise necessary funding.

Staff should provide the opportunity for the entity to provide a list of other investments or projects (including the schedule and cost), and explain any connection to the affordability of the wastewater project.

Staff should generate a concluding statement to summarize the other investments and identify possible overlap or complications.

In the case of a line extension or permit modification that does not require a rate increase, staff should insert an appropriate statement such as “This is a voluntary request for a line extension. Therefore other community investments relating to environmental improvements do not impact affordability.”

- **Sixth Criteria** - An assessment of factors set forth in EPA guidance, including but not limited to the “CSO Guidance for Financial Capability Assessment and Schedule Development” that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards.

The “Residential Indicator” should have been developed as part of the assessment of the second criteria. An appropriate cross reference should be included in a narrative statement.

Staff should analyze the “Permittee Financial Capability Indicators” as identified in EPA’s CSO *Guidance for Financial Capability Assessment and Schedule Development*. Regardless of whether the project is for a CSO community, the framework provided in this guidance is a useful mathematical tool that can be applied to other projects. See pages 20 through 41: <http://www.epa.gov/npdes/pubs/csofc.pdf> It is the intention of the department to provide an Excel format and links to data that will help staff more easily apply this tool.

**Comment [pw7]:** Note that this will include more than just wastewater improvements: drinking water; stormwater; solid waste management; air pollution control (electrical generation, etc.) and others. The connection to affordability is more closely tied to the customers, rather than the town or city.

**Comment [pw8]:** Again, the guidance assumes everything is affordable given enough time. That only works for growing economies, not declining economies. Also, the CSO guidance is geared toward improvements that can be done over a period of time (sewer separation can be done over years). Thus, the cost and work can be spread out over years. A treatment process must be constructed immediately and whole...there are not gradual changes to UV disinfection...you either have it , or you don't.

For each item, staff should calculate the statistic for the entity and log the appropriate score of 1, 2, or 3 for each item or input “not available” when the information does not exist (i.e. when an entity does not have a bond rating, indicate “NA” in lieu of a numeric score). It is important that staff maintain accurate notes documenting the source of the data and calculations as part of their file/backup material.

- Determine most recent bond rating (if available) (see also Criteria #1)
- Calculate the overall debt as a percent of full market property value (debt information should be available on most recent financial statements)
- Compare the unemployment rate to the Missouri average (see also Criteria #4)
- Compare the median household income to the Missouri average (see also Criteria #4)
- Determine property tax revenue as a percentage of full market property value
- Determine the property tax collection rate

Calculate the average score (total the numeric values and divide the sum by the number of entries that have a valid numeric value).

Utilizing the result of the residential indicator (calculated in Criteria #2) and the average of the permittee financial capability indicators, determine the suggested burden from the “Financial Capability Matrix” by plotting the results on the respective axis.

In the case of an extension or permit modification that does not require a rate increase, staff should insert an appropriate statement such as “This is a voluntary request for a line extension that is not impacted by factors set forth in EPA guidance.”

- **Seventh Criteria** - An assessment of any other relevant local community economic condition.

Staff should assemble information on any additional economic conditions that may impact the community’s ability to raise necessary funding. This may include other items that staff are aware of or items that the entity may provide – examples might include knowledge that a major local employer is ceasing operation; other consent orders, significant population loss, etc.

- **Conclusion** – Staff should develop a narrative conclusion and issue a finding of affordability. The conclusion should consider any significant subjective factors along with the objective measures that are formula driven. The conclusion should reference any extensions to compliance schedules or other changes in the permit or enforcement document that impact affordability.

**Comment [pw9]:** Including the need for at UAA, if it is found that a project will not be affordable.

Missouri Department of Natural Resources  
Water Protection Program  
Affordability Determination and Finding  
(In accordance with RSMo 644.145)

*[insert information to identify municipality, permit action, etc.]*

*[Name (of entity/permittee/applicant)]*

*[identify permit, enforcement action, etc.]*

Section 644.145 RSMo requires DNR to make a “finding of affordability” when “issuing permits under” or “enforcing provisions of” state or federal clean water laws “pertaining to any portion of a combined or separate sanitary sewer system or publicly-owned treatment works.”

Description:

*[insert information on location, geographic boundaries and connections.]*

Residential Connections: \_\_\_\_\_

Commercial Connections: \_\_\_\_\_

Total Connections: \_\_\_\_\_

New Permit Requirements or Requirements Now Being Enforced:

*[insert information as applicable.]*

Range of Anticipated Costs Associated with Complying with Requirements:

*[insert discussion of primary options available and include estimated costs.]*

**(1) A community’s financial capability and ability to raise or secure necessary funding** *(examine key indicators of the communities ability to raise funds);*

*[if the entity has already documented or raised sufficient funding, insert appropriate statement here and delete below criteria]*

Current User Rates \_\_\_\_\_

Rate Capacity or Pay as You Go Option:

Municipal Bond Rating (if applicable): \_\_\_\_\_

Bonding Capacity: \_\_\_\_\_

*(General Obligation Bond capacity allowed by constitution:  
cities=up to 20% of taxable tangible property  
sewer districts=up to 5% of taxable tangible property)*

Current outstanding debt: \_\_\_\_\_

Other indicators:

*[insert appropriate statement here to summarize criteria – if possible, conclude whether or not the entity appears to have the capability and ability to raise or secure funding.]*

**(2) Affordability of pollution control options for the individuals or households of the community;**

*[If no rate increase is required, insert appropriate statement here – depending upon circumstances, this may eliminate the need to complete below calculations]*

*[if a fee increase will likely be required, complete the “residential indicator” as identified in EPA’s CSO Guidance for Financial Capability Assessment and Schedule Development and insert corresponding information below.] [Note – if the entity has already established new rates sufficient to pay for the project, staff need only to identify the new rate and the MHI to perform this calculation.]*

Current annual operating costs (exclude depreciation): \_\_\_\_\_

Current user rate: \_\_\_\_\_

Estimated capital cost of pollution control options: \_\_\_\_\_

Annual cost of additional *(operating costs and debt service)*: \_\_\_\_\_

Estimated resulting user rate: \_\_\_\_\_

Median Household Income: \_\_\_\_\_

Usage Rates as a percent of Median Household Income: \_\_\_\_\_

*(Rate/MHI)*

Check Appropriate Box	Financial Impact	Residential Indicator (Usage Rate as a percent of Median Household Income)
<input type="checkbox"/>	Low	Less than 1% MHI
<input type="checkbox"/>	Medium	Between 1% and 2% MHI
<input type="checkbox"/>	High	Greater than 2% MHI

*[insert appropriate statement here to summarize criteria based upon results from the above table]*

**(3) An evaluation of the overall costs and environmental benefits of the control technologies;**

*[list key project components and their associated cost estimates. Include alternative technologies when feasible. Identify environmental benefits to be achieved. Depending upon the circumstances, a narrative description may be the most appropriate way to present options.]*

*[As warranted - Discussion of outfall location, existing technology, need for upgrade etc. Discussion of enforcement action, why capital project is necessary. Classification of receiving stream and water quality limits]*

**(4) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. This requirement includes but is not limited to:**

*(a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations; and*

*(b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained;*

Potentially Distressed Populations	
Unemployment for [insert city, county]	
Median Household Income [insert city, county]	
Percent Population Growth/Decline (1990-2010)	
Percent of Households in Poverty	

Opportunity for cost savings or cost avoidance:

[insert list or "None Noted"]

Opportunity for changes to implementation/compliance schedule:

[insert list or "None Noted"]

[insert concluding statements to identify possible cost reductions]

**(5) An assessment of other community investments relating to environmental improvements;**

[insert list of major infrastructure or other investment in environmental projects – include clear indication of project timing and costs]

[insert statement to summarize other investments and highlight possible overlap or complications.]

**(6) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards;**

See Section (2) of this analysis for the residential indicator as outlined in the above-referenced EPA guidance.

Secondary indicators for consideration **[for each item, insert the appropriate score or 'NA']:**

Socioeconomic, Debt and Financial Indicators

Indicators	Strong (3 points)	Mid-Range (2 points)	Weak (1 point)	Score
Bond rating indicator	Above BBB or Baa	BBB or Baa	Below BBB or Baa	
Overall net debt as a % of full market property value	Below 2%	2% - 5%	Above 5%	
Unemployment Rate	>1% below Missouri average	± 1% of Missouri average	>1% above Missouri average	
Median household income	More than 25% above Missouri MHI	± 25% of Missouri MHI	More than 25% below Missouri average	
Property tax revenues as a % of full market property value	Below 2%	2% - 4%	Above 4%	
Property tax collection rate	Above 98%	94% - 98%	Below 94%	

Average Score for Financial Capability Matrix: \_\_\_\_\_

Residential Indicator (from Criteria #2 above): \_\_\_\_\_

**Financial Capability Matrix**

Financial Capability Indicators Score from above ↓	Residential Indicator (User rate as a % of MHI)		
	Low (Below 1%)	Mid-Range (Between 1.0% and 2.0%)	High (Above 2.0%)
Weak (below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (1.5 – 2.5)	Low Burden	Medium Burden	High Burden
Strong (above 2.5)	Low Burden	Low Burden	Medium Burden

Estimated Financial Burden: \_\_\_\_\_

**(7) An assessment of any other relevant local community economic condition.**

*[List and discuss any other relevant economic condition.]*

**Conclusion and Finding**

*[Narrative conclusion/finding;*

*Insert statements to summarize key factors that impact distressed populations or affordability;*

*Insert summary statements to describe any time extensions or other changes to the permit or enforcement action that resulted from the affordability analysis]*

As a result of reviewing the above criteria, the Department hereby finds that the action described above will result in a [insert high, medium, low] burden with regard to the community's overall financial capability and a [insert high, medium, low] financial impact for most individual customers/households

\_\_\_\_\_  
John Madras, Director  
Water Protection Program

\_\_\_\_\_  
Date