

**State Water Infrastructure Authority  
April 14, 2021 Meeting  
Agenda Item H – Approval of Revisions to Affordability Criteria**

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**Division of Water Infrastructure Staff Report**

**Background**

In March 2016, the Authority approved the affordability criteria methodology used to determine an applicant’s eligibility for grant and Principal Forgiveness (PF). The affordability criteria are an important tool in providing a transparent and predictable methodology for determining grant and PF eligibility. It also focuses limited grant and PF funding to smaller communities with project affordability concerns.

The affordability criteria are used as part of the Clean Water State Revolving Fund (CWSRF), Drinking Water State Revolving Fund (DWSRF), Wastewater Reserve, and Drinking Water Reserve funding programs.

The four steps of the affordability criteria are based on population, the local government unit’s (LGU) economic situation, whether existing revenues could cover the cost of the project, and a combination of the LGU’s monthly utility bill and project cost. If an LGU is eligible for grant or PF, the percent of total funds provided as grant or PF for a specific project is based on the LGU’s monthly utility bills and project cost per connection.

At the Authority’s April 14, 2021 meeting, the Division proposed updates to the affordability criteria to include a provision that would allow designated distressed LGUs to go directly to Step #4. Division staff also updated Step #4 as follows:

- Update rate data to determine the percent distribution ranges from 2015 rate data to 2020 rate data.
- Use combined utility bills to determine grant and PF eligibility.
- Use a conversion factor to allow single-utility providers to calculate grant and PF eligibility.
- Use project cost per connection per month to determine grant and PF eligibility.

The results of the proposed changes to step #4 are shown in Table 1 on the next page.

Table 1. Proposed Step 4 (Affordability Matrix)				
Percentile Ranges for grant eligibility categories	Combined Monthly Bills* based on 2020 data (\$/5000 gallons)	% Grant or PF	Combined Monthly Bills + Project cost per customer per month based on 2020 data (\$/5000 gallons)	% Grant or PF
> 99 Percentile	> \$148	100%	> \$148	100%
95 - 99 Percentile	\$129 - \$148	100%	\$129 - \$148	75%
85 - 95 Percentile	\$107 - \$129	75%	\$107 - \$129	50%
70 - 85 Percentile	\$90 - \$107	50%	\$90 - \$107	25%
50 - 70 Percentile	\$79 - \$90	25%	\$79 - \$90	0%
0 - 50 Percentile	\$0 - \$79	0%	\$0 - \$79	0%

\*Single utility providers may divide by 0.4 for water or 0.6 for sewer applicant for calculating a combined monthly bill.

Figure 2 shows a graphical representation of the proposed Affordability Matrix and includes data points for previously funded wastewater and drinking water projects. Figure 3 shows a graphical representation of the current affordability matrix to be replaced.

Figure 1

Graphical Representation of the Proposed New Step 4 (8 Application rounds from Fall 2016 to Spring 2020)

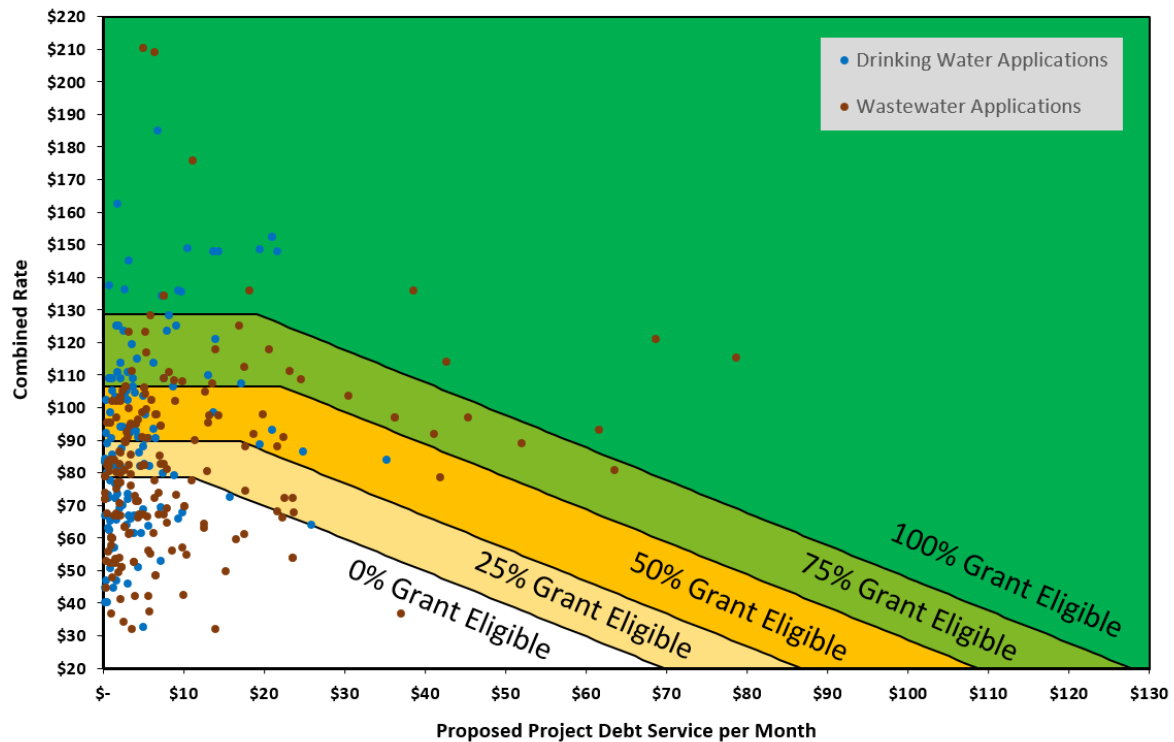
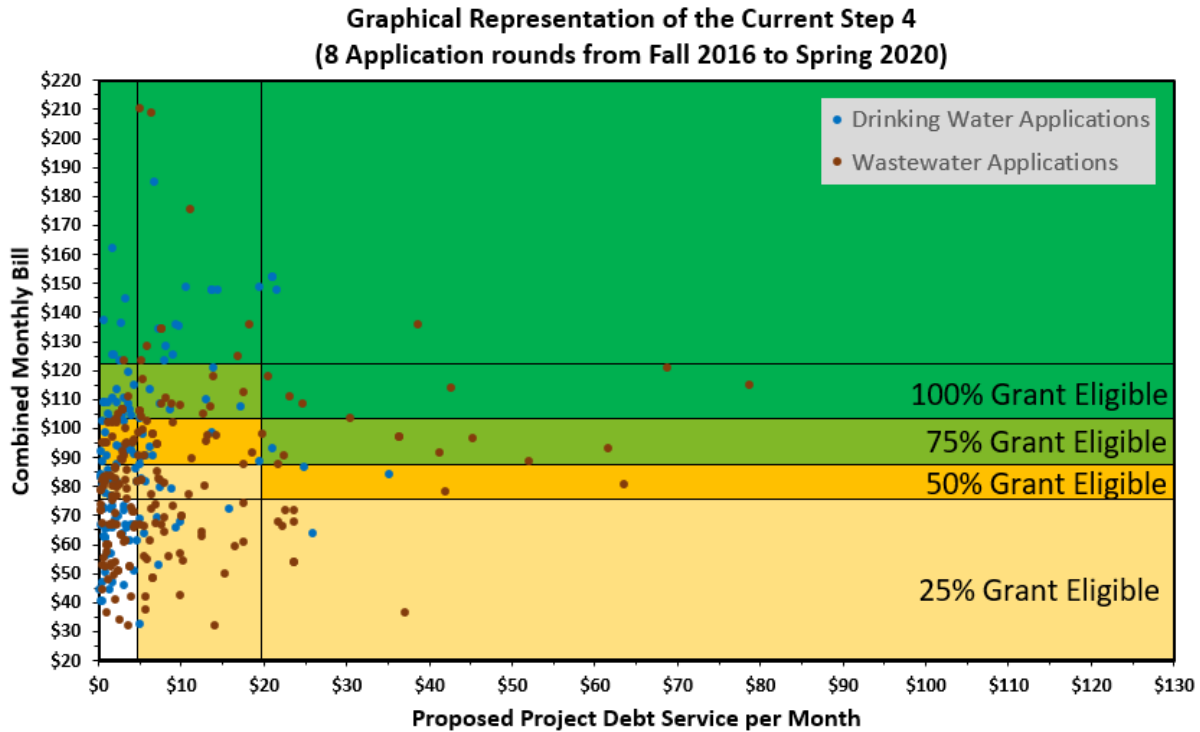


Figure 2



The Authority approved the affordability criteria with staff recommendations to go to public review. The public review period opened on May 7, 2021. The Division did not hold a public meeting due to social distancing requirements stemming from the Covid-19 pandemic. The public comment period closed on June 4. The following summarizes the comments received, provides staff response to each comment and staff recommendations for action on the Affordability Criteria. Comments were received from the following entities: Carolina Water Service and Withers-Ravenel.

**Comments, Responses, and Staff Recommendations**

Carolina Water Service submitted the following comments.

Comment: It appears, per the Affordability Calculator template available on the North Carolina Department of Environmental Quality (DEQ) website, that the median customer bill population does not include privately-owned water utilities and may also exclude non-profit water providers. CWSNC recommends including all DWSRF-eligible entities in the customer bill population to accurately represent the availability of the application to its eligible population.

Response: Division staff utilized utility rate information generated by surveys conducted annually by the UNC Environmental Finance Center (EFC) for calculating updated rate data. This data mostly consisted of local government utilities with combined

water & sewer rates but did also include three regulated for-profit utilities with combined rates (Carolina Water Service was included). Single-water providers and single-sewer providers were also analyzed and compared to the combined utility data set. The single utilities analyzed did include both for-profit and non-profit regulated utilities. In general, the single utilities had rates higher than the individual rates for combined utilities. *Division staff recommend no changes to the affordability criteria as proposed.*

**Comment:** It is recommended that DWI update the customer bill database every two years to capture what could be material changes in that timeframe.

**Response:** The Division supports the recommendation of a two-year evaluation frequency as being a reasonable expectation on staff. It is not recommended that a frequency for evaluating the affordability criteria is set as part of the criteria. Division staff recommend no changes to the affordability criteria are recommended as proposed.

**Comment:** CWSNC also recommends DWI solicit water and sewer bill rates that accurately reflect the full cost of service. That is, utilities should normalize their customer rates for purposes of SFR applications to include cross-subsidizing that occurs through taxes (e.g., Water Tax), surcharges, pass-throughs, or other measures, including subsidization between water and sewer services. It is likely that this type of cross-subsidization is performed to varying degrees (or in some cases not at all) across the population of utilities. This step will be the most consistent and comprehensive way to level the playing field for all DWSRF or Clean Water SRF (CWSRF) applicants by creating a true “apples-to-apples” dataset to support the application criteria. It also would remove the incentive for utilities to mask the true cost of service and best represent the potential affordability pressures the utility’s customers face. This method would also identify otherwise hidden distressed systems. Such adjustments should be calculated as a charge per connection and added to the existing approved water or sewer rates.

**Response:** The Division acknowledges that LGUs may subsidize water and sewer rates for various reasons, such that the true cost of providing the utility service is not reflected in the user rates. The affordability criteria methodology is predicated on encouraging LGUs to set appropriate rates which reflect the true cost of the utility service. *Division staff recommend no changes to the affordability criteria as proposed.*

**Comment:** CWSNC would recommend separate matrices for water and sewer to allow like-for-like service comparisons across the eligible utilities. DWI would therefore avoid the statistical gymnastics it performs in Item I in an attempt to balance the scales for the variety of utility providers. As stated above, cross-subsidization may be masking the true variances between single and dual-service providers.

Response: Division staff considered a combined matrix as well as separate matrices for single-service providers. Since there is a tendency for single-providers to have higher rates (especially for water providers), a combined matrix should heighten their competitiveness toward higher grant awards and PF. The methodology does not attempt to correct for any “cross-subsidization” effect; the net effect of this will be to favor the LGU which does not practice any cross-subsidization, as their rates will be comparatively higher, again heightening their competitiveness toward higher grant awards and principal forgiveness. *Division staff recommend no changes to the affordability criteria as proposed at this time, but staff do recommend continued evaluation of this as part of future updates.*

Comment: Additionally, to the extent single-service providers do indeed tend to have higher customer bills than dual-service providers, this difference should not be overridden, but instead should remain to reflect the different cost of service realities of these utilities’ operations and affordability status. Any resulting differences in eligibility for funds could provide incentive to pursue a merger, interconnection, or consolidation with a nearby utility, consistent with the goals of the DWI funding offerings.

Response: Division staff agree that the proposed affordability criteria recognize the higher cost of single-service providers and provides more opportunity for these single-service providers to receive grants / PF due to higher rates. *Division staff recommend no changes to the affordability criteria as proposed, but staff do recommend continued evaluation of this as part of future updates.*

Comment: DWI notes that it continues to recommend using project cost per connection as the preferred metric to evaluate the scope of the project in conjunction with other affordability criteria. CWSNC would agree that project cost per connection is the best metric in this context, as it is a uniform and easily understood figure that can be applied to all eligible utilities. However, there is no discussion in Item I of revisiting the project cost per connection scale (i.e., the x-axis of the affordability matrix), despite a significant trend of rising construction costs the past several years for infrastructure projects, notwithstanding additional supply chain pressures due to the COVID economic crisis.

Response: The Division does not attempt to apply any type of construction cost inflation factor to the affordability matrix X-axis (project cost per connection). The grant eligibility thresholds are set based on potential rate increases. Staff recognize that increasing costs can have direct impacts on user rates and encourages applicants to include increase cost consideration as part of the project application budget. *Division staff recommend no changes to the affordability criteria as proposed.*

Comment: DWI concludes that an applicant would be eligible based on either the existing monthly bill or estimated monthly bill inclusive of project cost, and such flexibility would incentivize utilities to take a proactive approach to setting rates. CWSNC disagrees with this conclusion. There are far too many counterincentives and, as noted above, methods available to avoid reflecting full cost of service in water and sewer utility rates for publicly owned systems, keeping rates artificially low and leading to lower application submissions. CWSNC recommends broadening the bands of grant percentages for monthly bill plus project cost to ensure that both existing high bill utilities (as depicted in Table 4 of Item I) and those who would become high bill utilities due to the proposed project will be treated comparably and are eligible for similar funding.

Response: Step 4 of the affordability criteria was created partly to incentivize LGUs toward taking a proactive approach establishing rates to reflect the true cost of the service. The affordability calculation incentivizes proactive self-funding by providing more benefit for current rates than for future / hypothetical high rates. The changes to the Step 4 matrix shown in Table 1 and Figure 2 is based on the similar approach used in past years, and the Division believes it continues to meet the intent to incentivize proactive rate setting. *Division staff propose no changes to the Affordability Criteria as proposed.*

The following comment was received from Withers-Ravenel.

Comment: It appears the proposed affordability criteria which uses combined rates is not included as a part of the proposed SRF or SRP Priority Rating Systems. This creates a conflict in priority and eligibility for grant funding in the affordability criteria.

Response: The proposed revisions to the affordability criteria will be applied all programs in which affordability plays a role, CWSRF, DWSRF, CDBG-I, SRP, AIA, MRF, VUR. *Division staff recommend no changes to the affordability criteria as proposed. The Priority Rating Systems of the funding programs listed above will be updated as needed to reflect the changes to the affordability criteria.*

### **Staff Recommendations**

Staff recommend that the Authority approve the following:

- The updated affordability criteria for use with the CWSRF, DWSRF, and State Reserve Programs as follows for PF and grant determinations as shown below.
  - Update rate data to determine the percent distribution ranges from 2015 rate data to 2020 rate data.
  - Use combined utility bills to determine grant and PF eligibility.

- Use a conversion factor to allow single-utility providers to calculate grant and PF eligibility.
  - Use project cost per connection per month to determine grant and PF eligibility.
  - Allow LGUs designated as distressed to proceed directly to Step #4
- Update Category 4 in the CWSRF, DWSRF, State Reserve Program, AIA, and MRF programs to reflect changes in utility rates.
- Staff will schedule updates to the affordability criteria rate approximately every two years.
- Staff will evaluate how the updated affordability criteria impacts single utility providers in preparation for the next affordability criteria evaluation.