PER Revision Plan

- HUC to attach the Joint Agency PER response comments sent to USDA on September 5th as an appendix to the PER document as an alternative to inserting all comments into the document unless discussed below. The most pertinent details agreed upon between the USDA and IHS/HUC will be incorporated into the body of the PER. If not discussed below, then the information from the HUC/EPA/IHS comments will not be incorporated into the body of the PER.
- On 19-20 September, the IHS discussed O&M costs for the Upper Village of Moenkopi (UVM) reverse osmosis (RO) plant with Moenkopi Utility Authority (MUA) staff. This information and other supporting information will subsequently be presented to the USDA-RD.
  - IHS to show that the O&M costs for arsenic treatment are relatively accurate.
  - If arsenic treatment costs are relatively accurate, then no revision to the PER section 6.2.11, the HAMP Strategic Plan, or the Life Cycle Cost will be required. Instead, a summary of findings will be provided in the previously referenced PER appendix.
- PER 50% usage increase that was used for design purposes will not significantly change capital costs based on the "bare bones" comparison provided in the Interagency Response provided on September 5th. The Revised Table 5.2 shown in the Interagency Response will be shown in the updated PER. The new estimated per capita usage is 49 GPCD. For design purposes, 1.5 times that value is 73.5 GPCD. This is similar to the USDA guidance that allows the use of 75 GPCD in lieu of actual meter data. This was discussed in a follow up clarification phone call between the IHS/HUC/USDA on September 18th. USDA agreed that this was reasonable since this 50% value was only used for design purposes and not in the Strategic Plan calculations or the application.
- Section 3: Insert numerous narrative revisions into PER almost directly from the PER Comment-Response document which was developed in advance of the 6 September multi-agency meeting with RD in Phoenix.
- Section 4: Suggest no changes to this section except for revised and clarified Shungopavi Well information. Section 4.2, which refers to an appendix map with an error on it, will be addressed and the appendix map for Shungopavi will be corrected.
- Section 5:
  - Section 5.1, format to interagency PER format and titles as suggested in USDA comments.
  - Section 5.2, revise greatest PER impact details only including the well information.
  - Section 5.3
    - Format to interagency PER format and titles as suggested in USDA comments.
    - PER Table 5.2 will be shown with updated Shungopavi EDU numbers and the calculated values of the table that are based on the Shungopavi EDU numbers.
    - The Strategic Plan and LCCA will remain valid for usage fees because the Strategic Plan usage fees are based on the gallons used in the community per day which remains the same with varying EDUs. (Reference Strategic Plan page 14-6)
    - The replaced 2014 Table 5.2 will be placed in the appendix. The Strategic Plan references this table and applies a growth factor to estimate the 2015 number of connection in each village.
    - In the Strategic Plan, Table 14.5: Estimated Village Connections and Water Usage Number of Connections, will be affected. A revised table 14.5 will be provided in the PER

document for clarification on how the values were derived for Table 8.4: Estimated Monthly HAMP Cost per Connection.

- Usage fees in the Strategic Plan from Table 14.8 were derived from Table 14.5, but remain valid for usage fees because the Strategic Plan usage fees are based on the gallons used in the community per day which remains the same with varying EDUs.
- Base fee cost distribution to Village systems is based on the initial estimated usage and not the EDUs in the Strategic Plan. Reference page 14-7. However, the equivalent base fee per connection in the PER will be decrease because of the increased EDU value for Shungopavi. The revised base fee per connection will be shown in the PER.
- Table 8.4 in the PER will be revised.
  - ◊ Cost share for villages from Strategic Plan page 14-7 remains the same.
  - ◊ Estimated monthly HAMP costs per connection will reduce for Shungopavi from $46 to $22.85.
  - ◊ The average cost per connection for all connections will reduce from $49.82 to $42.70.
  - ◊ A Shungopavi estimated resident's monthly cost would be $43.85.
  - ◊ The average cost for all the village's residents will be reduced from $67.51 to $60.71.
  - ◊ The paragraph under Table 8.4 should say, "The above costs are based on the villages annual water usage converted to per capita usage based on the estimated number of connections since the exact number of village connections is not known. The estimated monthly HAMP cost per connection includes a $28.64 base fee per customer, and an additional usage fee of $2.55 per 1,000 of water used per month."
  - ◊ On page 62 of the PER it says, "the water usage is assumed to be 6,550 gallons per month (current average for First and Second Mesa, see Table 5.2)". This will be corrected to say "The water usage is assumed to be 5,509 gallons per month (2013 average for First and Second Mesa, the usage values in Table 5.2 were projected for 2 years at a rate of 1.8%)". The decrease in water usage is due to the increase in the number of connections in Shungopavi from 154 to 310.
- In the Strategic Plan's Table 14.6: Total Initial Cost Allocation, the monthly cost/connection will be reduced for Shungopavi. This table was provided for information only and does not affect other strategic plan calculations. The revision will be shown in the PER in Table 8.4.
- In the Strategic Plan's Table 14.7: Base Fee Cost Component's, the equivalent monthly fee per connection will be reduced. This information was provided for information only and does not affect other strategic plan calculations. The updated value will be shown in the PER beneath Table 8.4.

- PER water demands used for design were evaluated to satisfy USDA's "bare bones" comparison request. IHS recommends that the water demands in the PER that were utilized for design purposes not be changed. The 2014 water demands in the PER are thought to still be quite valid. The final design after the PER will take into account the 3 years of growth since the 2014 PER was written. In the Strategic Plan, the 50% usage increase and the peak factor were not utilized in the evaluations.

- Section 6.2 Treatment Alternative:
  - Add clarifying narrative to some sections.

    - Water demands were evaluated to satisfy USDA "bare bones" comparison request. IHS recommends not to change the water demand data in the PER because the IHS considers that 2014 demand data to remain valid. The final design after the PER will take into account the 3 years of growth since the 2014 PER was written.
    - Correct Shungopavi system layout sheet.
- Section 6.3 Non-treatment HAMP
    - Add appropriate narrative.
    - O&M costs should not change as the IHS feels that these numbers are reasonably accurate.
- Section 7 Selection of an Alternative & Life Cycle Cost Analysis (LCCA)
    - IHS feels that these numbers were fairly accounted for in the 2014 documents.
    - The HAMP Regional Water System proposal is both preferred and justified.
    - Other non-monetary selection factors not described in the 2014 PER will be added to section 7.2 such as the Tribes and Villages preference for the HAMP Regional Water System.
- Section 8 Proposed Project
    - USDA comments will be addressed as part of the RD Application. HUC to provide.
    - Revisions to section 8 due to the Table 5.2 change as discussed in the section 5 comments in this document will be completed.
    - Section 8.7 will need to be formatted to the current interagency PER template.