# Hopi Arsenic Mitigation Project
## September 6, 2017
## 9:00AM MST – 3:00 PM MST

USDA State Office – 2nd Floor Large Conference Room 230
N 1st Ave, Phoenix, AZ 85003
*Phone Call in # (415) 947-8200, Conference #: 4159729116, Participant Code: 417220*

## Participants

### The Hopi Tribe
Lionel Puhuyesva, Water Resource Director
Lamar Keevama, Council Representative

### Hopi Utilities Corporation
Tim Bodell, Water Division Director
Carroll Onsae, General Manager
James Underwood, Board Chairman

### USDA
Mike Luecker, Civil Engineer
Loretta Orona, CP Specialist (call in)
Jeff Hays, Community Programs Director
Ernie Wetherbee, Acting State Director

### EPA Drinking Water
Emmanuelle Rapicavoli, Project Officer
Audrey Johnson (call in)

### EPA Enforcement
Roberto Rodriguez (call in)
Hillary Hecht (call in)
C. Carroll (call in)

### IHS
Eric Matson, Acting SFC Director
James Carter, District Engineer
Brad Rea, District Utilities Consultant
Jesse DeCoteau, Project Engineer

## Agenda

**Hopi Tribal Structure and History of the HAMP**

1. Political Structure of Tribe and Autonomous Villages *(Hopi Tribe and HUC)*
2. HUC Charter and organization *(HUC)*
3. History of HAMP work completed to date *(IHS)*
4. Regulatory perspective of HAMP project sustainability *(EPA)*
5. Overview of USDA application process *(USDA)*

Puhuyesva gave a history of the HAMP. There was emphasis on the water resources aspect of the existing Village wells being located in a thin portion of the N-Aquifer relative to the Turquoise Trail wells. Turquoise Trail wells seem like the superior long-term solution from a Water Resources perspective.

Hays stated that the USDA does not anticipate any legal issues with the HUC applying for a USDA loan-grant.

Underwood stated that Hopi Tribal Council (HTC) directed the HUC to complete the HAMP. The direction exceeds the HAMP in that it includes all water and Sewer. Hays asked if the HUC owns any water and sewer assets at this time, which Underwood answered no. Underwood stated that the HUC is a new organization and is working on capitalization with a goal of end of calendar year 2017. Puhuyesva stated that the Tribe directly operates runs two Public Water Systems (Hopi Cultural Center and Veterans Center), but has established the HUC as an entity separated from the Tribe. Puhuyesva stated that part of the reason for separation of the HUC from the Tribe was to insulate day-to-day operations from political issues. Underwood stated that Hopi Telecom Inc (HTI) has proved to be successful and profitable. Underwood also stated that the HUC is a for-profit

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corporation that is chartered under and wholly owned by the Tribe. Hays stated that this may be an issue due to the for-profit nature of the program and that the Charter and possibly other HUC documentation would need to be reviewed by General Counsel. Underwood stated that HUC would like to know specifically what USDA wants so that they can adjust to USDA's needs in the interest of HUC taking out a loan-grant. Hays stated that the Navajo Tribal Utility Authority (NTUA) is a Tribal enterprise that applies for USDA funds with the Tribe backing and guaranteeing security on loans. Hays asked if the HUC as a DUNS number and Underwood stated that the HUC does have a DUNS number. Luecker questions what water beyond the HAMP the HUC is going to be involved with and Underwood stated that it is not yet clear what that will entail. Underwood stated that it is up to the PWS and Village as to what happens to their infrastructure per each entity's unique structure.

Rapicavoli stated that EPA does not feel that treatment plants have worked well in similar isolated locations and in as small of systems such as Hopi from a regulatory perspective.

Hays stated that the USDA normally receives $16M annually for Arizona of which $4M is grant. There is also a national pool that for larger cost projects with similar costs as the HAMP. The USDA looks at similar system rates per EDU and the NTUA charges #31 per EDU. The USDA requires some sort of security with respect to repayment of the loan component.

Underwood requested that the USA provide what they want from HUC with respect to loan repayment requirements.

Hays stated that the application process is fairly straightforward, but the underwriting process (Orona) is difficult and requires some time. A national review of the HAMP PER and supporting documents would bring up similar questions as the local review. Another big point was that USDA grants are by project, and the Tribal-set aside grants (max $2M each) are by project. Therefore, by breaking up the HAMP into smaller projects, the USDA grant potential could be maximized. There is $22M nationally available annually for Tribal set-aside grants and they are always expended annually.

Underwood stated that based on a review of what has been completed on the HAMP to-date, it seems as though most issues have been looked at, beat up, and discussed many times over the past decade. The pressing issue at this point is to solve the arsenic Maximum Contaminant Level (MCL) violations.

Onsae asked where enforcement is at on all of this. Rodriguez stated that the EPA does not comment on open actions and that this call was not something best discussed in this meeting.

Hays asked if the Tribe can do anything to help out with costs. Puhuyesva stated that due to socioeconomic statuses, Villages currently subsidize water and sewer operations (largely with H-13 Tribal funds) and that the Tribe has been exploring the idea of assisting in a similar capacity.

**Preliminary Engineering Report Review – Key Topics**

1. Operational costs per EDU (HUC, USDA, IHS)
2. Capital and O+M costs for the Treatment Alternative and the related complexities at existing First and Second Mesa arsenic treatment systems (IHS, HUC, EPA)
3. 50% Increase Usage Assumption (IHS)

Onsae stated that assumptions in 2014 studies need to be re-reviewed for validity. Hays stated that it is the assumptions in the 2014 study that USDA is uncomfortable with. Underwood stated that they are not sure if the operational costs are correct and would like to have something to present to HTC in December when they ask for capitalization.

Carter stated that costs in the PER are good to within ±15%. Hays stated that the costs in the PER are what would be funded.

Matson stated that the PER capital and O&M costs are indicative of what IHS believes the costs will actually be and are not incorrectly adjusted in an effort to seem more attractive to funding agencies or end users. Hays stated he understands, but that the O&M costs must be similar to other utility rates.

Keevama stated that due to the need of the project that the costs being the primary hindrance for the project moving forward is disappointing. Hays stated that the end user rates need to be palatable.

Wetherbee stated that the end-user costs are the largest driving factor and asked if the funding scenarios provided by USDA factor in other funding agency contributions (no).

Bodell stated that the 50% growth is validated by USGS data.

Carter stated that the per capita usage rate is in the 20-30 gallons per day in many of the HAMP communities and is more likely to go up than go down. The low usage is also likely indicative of few to low volume leaks.

DeCoteau stated that there are approximately 115 homes on top of Second Mesa (Shungopavi and Mishongnovi along the proposed HAMP alignment) that are not connected to any PWSs that are currently being evaluated by IHS to be served with water and sewer.

Rea asked what the oldest treatment facility that RD has funded that is still in operation is. Luecker replied approximately 10 years old.

Rapicavoli asked where the Life Cycle Cost Analysis failed at explaining/justifying costs. Also, the O&M costs identified by IHS are an order of magnitude higher than the costs identified by USDA. Luecker replied was that the O&M costs are too high. Underwood stated was that from HUC's perspective that there needs to be some middle-ground to get to on costs.

Hays questioned whether there was any end-user buy-in on the HAMP costs. Matson stated that community outreach meetings were conducted as part of the Environmental Assessment process and that they are being reaffirmed with the current Memoranda of Agreement (MOA) out for signature amongst Tribal stakeholders.

Underwood questioned how PER submissions were being handled since it seemed as though the submission was from the IHS to USDA and not the HUC to USDA. Rea responded that it was from the IHS to Tribe to USDA. Underwood stated that the loan would be from USDA to HUC so IHS should not be submitting direct to USDA. Underwood also questioned what the role of IHS was. Matson stated the IHS role is for Technical Assistance to the Tribe, PWSs, and/or HUC. Underwood also questioned the potential complications associated with the Tribe and HUC both submitting

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material to USDA (possibly in addition to IHS). Underwood stated that the submissions to IHS should be kept clean and IHS should not be submitting to USDA.

Underwood questioned who pays IHS to provide Technical Assistance. Matson replied that the IHS and EPA have paid for IHS involvement to-date on behalf of the Tribe/PWSs/HUC.

Underwood stated that the roles of the IHS, Tribe, PWSs, and HUC should be clearly established moving forward. Matson stated that Memoranda of Agreement would establish such roles. Underwood directed Onsae to lead this effort.

Hays stated that the O&M costs needed to be bluntly stated that the relatively high costs were due to operator costs. Bodell stated that they feel this has been pretty blunt. Much of this conversation was based on the Upper Village of Moenkopi rates that have been implemented as a result of contracting certified operators.

Hays stated that The Hopi Tribe's current audit problems may not be as much of a problem for the HAMP as they are for formerly-funded projects.

Carter stated that the gallons per capita day of Hopis were much lower than USDA's default value.

Luecker stated that the EDU usage of Hopis were higher than the default value and that increasing water rates would likely result in usage rates decreasing. If 50% increase can be properly documented, this may be justifiable. The hard part about the increase is the underwriting.

Rea commented that if O&M costs on treatment alternative is scaled back, the rural water system O&M costs should also be scaled back since they are proportionally conservative.

Hays stated that estimates of 50% growth should not be over with respect to payback of loan since the water rates count on selling the additional growth water.

**PER Review Key Topics Continued**

4. Leaks and existing meters (IHS)
5. Necessary upgrades to existing infrastructure (IHS)

Matson stated that the current planned metering situation is for the HUC to wholesale sell water to each PWS at a master meter. Village autonomy is an issue that is brought up when discussing billing individually within Villages. The wholesale metering structure seems to be fine due to Hopis low water usage and collection of flat rates. Individual meters would be more important if there was more water usage.

DeCoteau stated that the addition of meters to the project would add costs to the total of either PER alternative and also add NEPA issues to the Environmental Assessment (EA) that were previously circumvented by proposing facilities in Village outskirts. Since most of the proposed meters are in Villages that are hundreds of years old, the EA would require modifications that could take a significant amount of time. The meters are useful to the HAMP, but seems to be a separate project or projects due to the environmental complexities and all of the time-intensive work that would be

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required. Also, meter addition to some service lines is unlikely possible in all cases and would be preferable to budget for and replace service lines with meters. Similarly, the arsenic treatment facility alternative was not included in the EA due to the Present Value difference of $7M more than the Rural Water System having eliminated the arsenic treatment option from further analysis.

Hays stated up that costs as to what homes are spending on bottled water would be helpful, especially as to the health need of the project. Keevama stated that many homes on the Hopi Reservation that aren't affected by arsenic purchase bottled water regularly.

Luecker stated that First Mesa Consolidated Villages (FMCV) brought up the individual meter issue as something that is important to them. Matson asked if individual meters would be a prerequisite to funding the HAMP (no, but new developments with USDA funds require it). In a PER revision, it should be stated in the Description of Existing Facilities how their water use is under control and how they are going to be able to adequately bill for water.

Puhuyesva stated that FMCV is run more like a normal utility since it is a separate entity from the First Mesa Villages and collects revenue without Tribal subsidies (H-13 funding). FMCV has been requesting meters in order to bill. Hays stated that USDA can fund meter-only projects, but such projects would be loan-only. Matson stated that this may be something that IHS could fund in the future, possibly with IHS Housing funds.

Luecker stated that leakage does appear low based on per capita water use data. Matson stated that the IHS remains committed to assist with other deficiencies to-be addressed on a competitive basis in the IHS Sanitation Deficiency System (SDS). This should be stated in the PER revision so as to address USDA concerns with condition of existing facilities.

**Project Phasing and Funding Structure**

1. USDA Grant/Loan structure and HUC underwriting (USDA)
2. IHS funding process (IHS)
3. EPA funding process (EPA)
4. Tribal contributions (HUC, Hopi Tribe)
5. Construction Phasing Options (IHS, HUC)

Luecker questioned whether IHS and/or EPA could commit to funds so as to incorporate the projected costs into the USDA funding equations. Matson stated that the IHS Phoenix Area, who get approximately $4M annually, could at most contribute $1M per year. Rapicavoli stated that the EPA Region IX Drinking Water Tribal Set-Aside Program, who get approximately $6M annually, could at most contribute $2M per year. Luecker stated that it may be beneficial to break smaller scopes off from the greater HAMP and construct them with IHS and/or EPA funds. Hays stated that loan portions of USDA loan-grants would need to be spent prior to grant portions. Matson stated that the IHS policy is to not build any bridges to nowhere and not to install any facilities that do not have a benefit to homes. Rapicavoli stated that EPA would need information prior to February-March for a final decision on applications submitted for the November deadlines. Hays stated that for the February-March deadline, an application would have to be submitted to USDA in December. Hays also stated that if other funds materialize after application submission, the loan amount is locked in regardless.

Hays stated that any grant amount (and EPA/IHS contributions) in excess of the total required to complete the project could be used on related ancillary parts of the project (e.g. meters). The loan floats every quarter and is fixed at the time of obligation. The Tribe's contributions may be better set-aside and used to subsidize O&M. A letter commitment from the Tribe/HUC would be sufficient for the loan collateral per question raised by Underwood.

Onsae stated that the stakeholders seem to be held up on the PER. Underwood directed Onsae to meet with IHS on revisions and requirements prior to a December submittal to USDA and report to HTC.

**Next Steps**

1. Public Participation and Village/Utility Agreements (HUC, USDA)
2. Upcoming Critical Deadlines and Action Items (All)

Hays stated that the application and PER should be submitted simultaneously. Underwood questioned that the final design would be a prerequisite to funding or after funding, to which Hays response was after. The USDA RD Apply online process should be used for submittals of the PER, environmental documentation, and financials.

Hays stated that a revised PER is necessary with financial information as an addendum.

Onsae will be working on obtaining the MOA signature from FMCV. It would be preferable to have updated and verified rate information to provide to them.

Hays questioned whether the Tribe is looking at future housing developments in the area as such developments could be a catalyst for or a result of HAMP funding. Developments are potentially something that USDA could fund. The big issue would be with leases on Indian land.

Luecker stated that adding Kykotsmovi to the HAMP may not be the best course of action at this point in time due to the additional complexities.

Underwood questioned what collateral would be for the loan and Hays responded that it is not a real collateral as much of a pledge of faith from the Tribe.

IHS is to follow-up with justification on O&M costs with similarly sized systems.

Onsae, Carter, and Matson agreed to meet the following day to clarify some action items and other outstanding IHS-HUC issues/roles.

Matson stated that IHS would prefer to get in front of HTC for a meeting, which Keevama and Puhuyesva thought was a good idea (especially as a joint IHS-HUC presentation).

Luecker stated that a PER update would be one of his top priorities with respect to participation and reviews to ensure the final product meets USDA requirements at the Arizona level prior to going to National for review.

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