The Guam Department of Agriculture, Agricultural Development Service Division (GDOA - ADS) would like to recommend the costs of installing an agriculture water meter to the list of Local Priority Resource Concerns for the Environmental Quality Incentive Program (EQIP). ADS is addressing these costs (See Figure 1 below – i.e. System Development Charge, purchasing water meter, tail piece, backflow preventer, digging, and installation estimated at $3,328-$3,370 for a ¾" meter)[1] that prohibits potential Bona Fide Farmers and existing Bona Fide Farmer's venturing onto new lots with no existing water meter. The aforementioned costs are a deterrent to install efficient irrigation and effective moisture management systems, two eligible resource concerns currently on the EQIP list.

Item for ¾" meter	Cost range
Meter, meter box, tail piece(s), fees (inspection, administrative, and installation), and deposit	$638
Tail piece	$53 - $90
Backflow preventer	$298 - $431
Shut off valve	$13 - $35
Installation estimate – *digging or laying lines is extra*	$200 - $450
System Development Charge (SDC) for water service	$2,126
Estimate of a minimum – maximum total cost	**$3,328 – $3,370**

Source: http://guamwaterworks.org/rates/ and plumbers and plumbing supply stores on Guam. Accessed January 16, 2016.

[Figure 1]

Farmers without an existing water infrastructure on their land are ill-equipped by lack of water meters due to their high installation costs. This further discourages the farmer to improve degrading plant conditions such as undesirable plant productivity and health, inadequate plant structure and composition, excessive plant pest pressure, wildfire hazards and excessive biomass accumulation. Without water, the soil quality will suffer and lead to increased compaction. Farmers that raise livestock will have a limitation in their production if this water installation cost is what deters them from having adequate water for raising livestock. Simply put, farm development is greatly hampered without water infrastructure, thus conservation practices are not implemented. In the most extreme scenario, farmers may have to result to hauling water from elsewhere, and physically bring it to their farm location to maintain crop/livestock production. Installing an agriculture water meter is a basic, vital, cost that can be the largest deterrent for farmers to partake in conservation practices.

[1] http://cnas-re.uog.edu/wp-content/uploads/2016/04/Agricultural-Water-Use-Guam-2015-2016-April-12-FINAL.pdf (pg. 3)

P.L. 19-47[2] and P.L. 26-164[3] established the public policy for implementing a System Development Charge (SDC), which new customers would be responsible for the incremental costs associated with the construction of new water meters and wastewater facilities to support those customers rather than such costs to be paid for by the taxpayers of Guam or existing customers. SDC's pay for a portion of the costs Guam Waterworks Authority incurs to accommodate increased demand for water and wastewater services on Guam. SDC's are commonly used throughout the United States and other developed nations to fund improvements. SDC's became effective on Guam on March 1, 2010.[4]

ADS has been receiving numerous oral grievances from new farmers regarding the cost of how to pursue farming with the SDC costs ranging from $2,126.00 (see Figure 1 above) for a ¾" meter to $17,011.00 for a 2" agriculture water meter (See Figure 2 below).[5]

Item for 2" meter	Cost range
Meter, meter box, tail piece(s), fees (inspection, administrative, and installation), and deposit	$2103
Backflow preventer	$775 - $1,872
Shut off valve	$26 - $162
Installation estimate – *digging or laying lines is extra*	$1,500 - $2,103
System Development Charge (SDC) for water service	$17,011
Estimate of a minimum – maximum total cost	**$21,415 – $23,251**

Source: http://guamwaterworks.org/rates/ and plumbers and plumbing supply stores on Guam. Accessed January 16, 2016.

[Figure 2]

It is in the socially disadvantaged groups such as the retired manamamko's, veterans, and the disabled that will benefit from adding the operational water costs to your eligible resource listing. Including this cost into the NRCS eligible resources would lead to an increase in USDA's underutilized conservation programs and an increase in GDOA's support to push for conservation by Bona Fide Farmers. Additionally, this will encourage the public to buy local, expand the farming community, and will be the ultimate push for collaborative island-wide water conservation.

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[2] http://202.128.4.46/Public_Laws_19th/P.L.%2019-47%20Bill%20No.%20750.pdf
[3] http://202.128.4.46/Public_Laws_26th/P.L.%2026-164.pdf
[4] http://cnas-re.uog.edu/wp-content/uploads/2016/04/Agricultural-Water-Use-Guam-2015-2016-April-12-FINAL.pdf (pg. 7)
[5] http://cnas-re.uog.edu/wp-content/uploads/2016/04/Agricultural-Water-Use-Guam-2015-2016-April-12-FINAL.pdf (pg. 5)