Upgrade of Northern District Wastewater Treatment Plant
GWA Project No. S17-003-OEA
OEA GRANT OCON676-16-02

NDWWTP Update
July 19, 2018
Project Team

GUAM WATERWORKS AUTHORITY

Brown AND Caldwell
Project Design Team
Design Scope of Work

1. Preliminary Treatment
2. Biological Treatment
   3. Disinfection
4. Solids Handling
Project Need

The graph illustrates the trend of average flow over a period from 2000 to 2070. The x-axis represents the years from 2000 to 2070, while the y-axis denotes average flow in mgd. Several lines, each representing a different scenario or project need, are plotted to show the projected increases in average flow over time. The lines indicate a steady rise in flow, with some fluctuation in the early years, converging towards a higher average by 2070.
Project Design Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Design and Bid</td>
<td>1st QTR 2019</td>
</tr>
<tr>
<td>Start Construction</td>
<td>2nd QTR 2019</td>
</tr>
<tr>
<td>Complete Construction</td>
<td>Last QTR 2021</td>
</tr>
</tbody>
</table>
Liquids Process
Biosolids Process
Project Challenges

Permitting
Water Supply
Budget
Area of Potential Effect (APE) - Figure 1
Northern District Wastewater Treatment Plant
Secondary Treatment Upgrade
Dededo, Guam

Legend
\[\text{Original APE}\]

Satellite Image: 2016 WV2
Original APE: Draft GANDA Report No. 2391-2
Questions?