

"California Water Wars" might sound like a new reality show
years ago, when William Mulholland built the California
aqueduct and diverted water from the Owens Valley straight
to Los Angeles, leaving the eastern region of the state barren.



- » Managing the infrastructure involved in water catchment, treatment and distribution
- » Removing wastewater from communities
- » Diverting water from sources (lakes, reservoirs, groundwater, and so forth) to reach communities
- » Cj YfgY]b['g'cfa k UHYf'a UbU[Ya YbhUbX' ccX'Vzbf'c`

K UHYf' 'g'U'g\UFYX'fYgci fWzVi hH\YfY'UFY'%, z\$\$\$'X]ZZfYbhi
di V'JWk UHYf'gng'ha g'a UbU[]b['hUW'cgg'h\Y'I b]hYX'GHU'g'
And in many areas, different agencies manage the different
i gYg'G'cfa k UHYf' 'g'\UbX'YX'Vmcby'Ybh]miUbX'Xf]b_]b['
water by another. To align the industry on best management
dfUW]Wgzh\Y'I "G"K UHYf'5''UbW'fil GK 5E'VWYUHYX'CbY'K UHYf'
H\]g']b]h]U]j Y'fU_Yg'U'\c`]gh]WUddfcUW'hc'k UHYf'a UbU[Ya Ybhz
k \]W' h\Y'I GK 5''U]X'ci h]b'gY] Yb'ghYdg'hc'VzcfX]bUHY'
g'U_Y\c'XYfgUW'cgg'h\Y'Vzi b'bfm

%ci b'bfm



]bXi gfrmiBchYbci [\ `a cbYm]g]bj YghYX`]bhc`a UbU[Ya YbhUbX`
]bZfUghfi Vm fY`K]h`XYWbhfU]nYX`k UHYf`gnghYa gZi bX]b[`]g`
\UfX`hc`Vza Y`VmiZcf`cj Yf\U`i`]b[`h`Y`dUHWk cf`cZd]dYgUbX`
]bZfUghfi Vm fY`": YXYfU`YI dYbX]hi fYg`UfY`gWfWZ`YUj]b[`]hi d`
hc`ghUhgza i b]V]dU]h]YgZUbX`h`Y`dYcd`Y`h`YmgYfj Y`hc`dUmZcf`
XYgdYfUHY`mbYYXYX`]a dfcj Ya Ybhg`UbX`i d[fUXYg`

-bWfYUg]b[`nāg`cfa k UHYf`fi bcZZ]g`d]W]b[`i d`VWYa]W]gZ`
[UfVU[YZU[f]W`h`fU`dc`i`hUbhgZUbX`VUMWf]U`UbX`WfWf]b[`]hiU`
VUW]`]bhc`h`Y`k`UHYf`g]`dd`n`b`@cg`5b[Y`Yg`U`cbYz`%\$`a`]`cb`
[U`cbg`cZdc`i`hYX`k`UHYf`a`cj`Y`h`fci [\ `h`Y`g`cfa`XfU]bg`
YUW`XUm`b`Ygg`XYj`Y`cdYX`fY[]cbg`cZ`h`Y`k`cf`Xz]bUXYeI`UHY`
management resources and lack of infrastructure can lead to
Vf`cgg]`Vz`b`h`L`a`]b`U`h]cb`c`Z`g`Y`k`U[Y`UbX`Xf]b_]b[`]g`dd`]Yg`9] Yfm`
nYUfza]`]cbg`cZ`dYcd`Y`X]Y`Z`ca` \`YU`h`]gg] Yg`fY`UHYX`hc`
unsafe water.

Like other industries, water management is also facing a
k`cf`_`ZcfW`g`cf`hU[Y`GYUgcbYX`cdYfUhc`fgZ` \$i`c`Z`h`Y`]bXi`gfrmg`
%`+`a`]`]cb`k`cf`_`Yfgzk`]`fYUW`fYh]fYa`YbhU[Y`k`]h`]b`h`Y`bYI`h`
%\$`nYUf`g`6i`h`h`Y`bYI`h[Y`bYfU]cb`]g`bch`Y`b`hYf]b[`h`]g`]bY`cZ`
k`cf`_`z]bg`h`UX`W`ccg]b[`WfYfYg]b`]bXi`gfr]Yg`h`U`h]b`Vf`f`dc`fUHY`
more data and technology.

9j`Yfm`X`fcd`c`Z`k`UHYf`WfWf]Yg`XU`h`h`fci [\`ci`h]hg`^ci`fbYn`6i`h`
the industry needs the software, solutions, and the cloud
]bZfUghfi Vm fY`hc`Vzbj`Yfhi`h`U`h`XU`U`]bhc`]bg][`hg`gc`cdYfUhc`fg`
can make better decisions. And while the industry is starting on
]hg`^ci`fbYn`h]h]g`df]a`YX`Zcf`U`U` nā!

•
H\Y'X][]H'ci fbYm]g'a cfY'h\Ub'Vi n]b['U'd]YW'cZgcZk UFY'
cf'i d[fUX]b['U'g]b['Y'gng]Ya " #g'UVci hVzbbYV]b['h\Y'f][\h
tools, teams, and workers to make that transition and unlock
the value of technology. And that requires working in a cloud-
based environment.

H\Y'VybY hg'cZH\Y'Wci X'UFY'k Y'!_bck b"6m&\$&) ž-) i 'cZ
k cf_k]''\UddYb']b'h\Y'Wci X"K UHY'f' d'fcZYgg]cbU'g'\Uj'Y'nYh
hc'a U]]a]nY'h\Y'ž ''dchYbh]U'cZH.]g'cdYb'YVzngng]Ya žVi h
it is starting to gain traction. Water distribution networks
UFY'Vza d'Yl 'gng]Ya g'h\Y'Wci X'WbfU']nYg'Yj Yfnt]b['UbX'
everyone, enabling real-time collaboration. Digital twins with
all that valuable data will be built in the cloud, and the data
k]''j]Y]b'cbY'WbfU' d'UW" H\Uha YUbg'h\Y'f][\hdYcd'Y'Uh
h\Y'f][\h]h]a Y'V]b [Yh'h\Y']bZcfa Uh]cb'h\YmbYYX'žcf'd'Ubb]b[ž
XYg][b]b[žcdYfU]b[žUbX'a U]b]h h



:`cfYbWz#U nã]gghYdYX`]b`\\]gfcfmUbX`W`h`i`fY`"6i`h]b`%`*`*`z`
U`XYj`UghU]b[` `ccX`UbX`*`\$\$\$`\$\$\$`hcbg`cZa`i`XzXYVf]gžUbX`
gYk`U[`Y`]bi`bXUHYX`h`Y`V]mãWU]a`YX`%`\$`\$`"j`YgžUbX`fi`]bYX`a`Ubm`
antiquities.

More than half-century later, hydraulic engineer Paolo
HLa`U[`bcby`VWUHYX`U`a`cXY`h`U`h`a`UddYX`h`Y`5fbc`F`j`j`Yf`Zfca`
]h`j`g`ci`fW`hc`h`Y`V]mãUggYgg]b[`UfYUg`dfcbY`hc` `ccX]b["`<Y`
a`cXY`YX`k`UHYF`UbX`k`UghYk`UHYF`gngH`a`gžUg`k`Y`"Ug`h`Y`V]mãg`
Vi`]`X]b[`gžUbX`f`Ub`g]a`i`U]h]cbg`hc`dfYX]V]k`h`U`h`UddYbg`Uvcj`Y`
UbX`VY`ck`[`fci`bX`]b`j`Uf]ci`g` `ccX]b[`gWbUf]cg`8YHU]`YX`a`Udg`
revealed the most vulnerable areas and enabled the creation
cZUb`YZZYV]j`Y`Ya`Yf[`YbV]h`fYgdcbgY`d`Ub"

#b`>Ubi`Ufm&\$%`žU`a`UghYf`a`YHYF`ZU]`YX`]b`@j`cb]UZA`]W`"ž`
W]i`g]b[`a`i`h]d`Y`k`UHYf`a`U]b`VfYU`_g`CZ`V]U`g`]gg`YX`U`Vc`]`!
k`UHYF`UXj`]gcfmUbX`WcgYX`U`a`U`cf`\\][`k`UmXi`Y`hc` `ccX]b["`
@j`cb]U`\\Ug`(.`.)`a`]Yg`cZk`UHYF`a`U]bg`Vi`]`h]b`h`Y`%`&\$g`
#hg`k`UHYf`a`UbU[`Ya`YbhdfcWggYg`k`YfY`d`UdYf]VUgYXžUbX`
documentation lived in binders. The city hired OHM Advisors,
Ub`U`FW`]h`V]h`fYzYb[`]bYf]b[`žUbX`d`Ubb]b[`fa`žhc`VWUHY`;`-G`
VUgYX`\\nXfU`i`]Má`cXY`g`hc`g]a`i`UHY`a`cfY`h`Ub`(\$`gWbUf]cg`
Zcf`d`UbbYX`UbX`i`bd`UbbYX`X]gf`dh]cbg`5`"bZcfa`U]h]cb`]g`bck`
stored in an interactive digital dashboard that all stakeholders
Wb`U`W`gg`5V`UbX`cb]b[`U`FW`U]WdfcWggYg`YX`hc`h`Y`VWU]h]cb`cZ`
Ub`Ya`Yf[`YbV]h`fYgdcbgY`d`Ub`VUgYX`cb`X][`]H`k`cf`_`ck`g`



:]bU`nāhY i d[fUXYgk]`dfcXi W`YbYf[mZca `X][YghYX`gi X[Y`
UbX`U`bYk `W[YbYfU]cb`gnhYa `hUhk]`dck Yf`U`a cgh%\$\$i`
cZK Ygh7ci bmk Ughk Uhf`g`cdYfU]cb"

5WdfX]b[`hc`?Y]h`FYntbc`Xgž`f`žgYb]cf`dfc`VMa UbU[Yf`Zcf`
K 7K žhY`7`YUb`/` ; fYYb`dfc`VM]g`Ub`Ua V]h]ci`g`Yi`Ua`d`Y`cZU`
i`h]`]mg`W`a`a`]ha`Ybhihc`h`Y`Ybj`]fcb`a`Ybh`UbX`]hg`fU]dUnYfg"<Y`
gUhg`h`Y`dfc`VMk`]`dfcj`Y`hc`VY`U`a`cXY`cZYbYf[`mYZ`VYbW`h`
UbX`U`g`U`ck`YX`K`7K`hc`VYU]h`Ub`]bhYfbg\]d`dfc[`fUa`hc`hfU]b`
k`Uhf`dfcZYgg]cbU`g`cZ`h`Y`ž`h`fY"



5g`h`Y`X`Ya`UbX`cb`k`Uhf`gi`dd`m`W`bh]bi`Yg`hc`]b`VY`U`g`Y`za`cfY`
water agencies will turn to smart water II tuoh00520P kang (en-~~BM~~CID 55 2 7 2 26 Tmgtr\$WKHBP



8f°7Ufc`]bUJYbY[Ug'A Ufh]bYn]g'h.Y'gYb]cf'ghUHY[ma UbU[Yf'Zcf'h.Y'k UhYf'
