

Additional file 2: Full List of Codes and Sub-Codes used with descriptions

Codes	Drivers (DRIVER)
NATURE	Natural cycles (not El Nino) or Nature as force of its own
DEFOREST	Deforestation (both clear cutting and agricultural burns)
GEO	Geography (Atlantic/Pacific side of mountains) or Geology (soil types, earthquakes)
POP	Population growth (demand growth) within locality
GOD	God controls seasons, rains, etc.
CCGW	Global warming type climate change
ELNINO	El Niño/La Niña cycle
OZONE	Ozone hole
TOURISM	Tourism demand (pools, hotels, lawns, recreation)
INDUSTRY	Industry
LGFARM	Large farm demand for water and contamination releases
CONTAM	Contamination of water
OTHERPOP	Water demand from other municipalities
MISUSE	Using water for the incorrect purposes (washing cars, watering lawn, planting melon) or using water inefficiently
ENERGY	Water demand of hydropower facilities
DAMAGE	Damage to aqueduct system
SLR	Sea level rise
RAIN	Amount and timing of rainfall
WIND	Magnitude, direction, and timing of wind
ENERGY	Hydroelectric demand for water
WETSEASON	Timing and duration of the wet season
DRYSEASON	Timing and duration of the dry season
Codes	States (the state of...) (STATE)
COSTS	Economic costs of water or energy
PESTS	Agricultural pests
HEALTH	Human health
RAIN	Amount and timing of rainfall
WIND	Magnitude, direction, and timing of wind
WETSEASON	Timing and duration of the wet season
DRYSEASON	Timing and duration of the dry season
TEMP	Ambient temperature
WATER	The amount or quality of water (no specific water resource mentioned)
GW	Groundwater
RIVER	Rivers and streams
LAKE	Lakes and reservoirs
AQUEDUCT	Aqueduct distribution system
FLOOD	Floods
DOWNPOUR	Downpours, heavy rains
STORM	Tropical storms
IRRIGATE	Irrigation systems
FIRE	Wildfires
CONFLICT	Human conflict over water resources
OCEAN	Ocean and beaches

Codes	Water Uses (WATERUSE)
HOUSEHOLD	Domestic use
ANIMALS	Livestock
ENERGY	Hydroelectric power production
TOURISM	Tourism demand (pools, hotels, lawns, recreation)
CROPS	Small and large scale agriculture
ENVIR	Left for the environment, national parks, biodiversity
Codes	Management Actions (ACTION)
CHANGEMIND	Change people's hearts and minds, increase conscientiousness
REFOREST	Reforestation efforts
SAVE	Storing water for future use
PROTECT	Protect watersheds and water sources
NOCONTAM	Stop contaminating water sources
OMR	Normal operations, maintenance, and repair of systems
EFFICIENCY	More efficient use of water
TREAT	Treating water to clean contamination
MODPLAN	Modifying long term planning operations such as development of new aqueducts, or crop switching or expansion of agricultural enterprises
NOTHING	Nothing can be done/what we do has no effect
NEWSUPPLY	Find/access new supply of water
LAW	Make laws or regulations about water
IMPROVEDTECH	New seeds, improved irrigation etc.
INSURE	Participate in crop insurance
MEGA	Either diverting water from government irrigation district for municipal use or taking water from Atlantic side of central mountains
Codes	Information Sources (INFOSOURCE)
DEEC	Direct experience and environmental cues
TRADITION	Traditional methods of forecasting: Las Pintas, the moon, birds, flowering
LGOV	Local government: ASADAs
RGOV	Regional government: AyA, MAG, MINAE, SENARA
NGOV	National government: IMN, AyA, ICE
INTL	International sources: NOAA
PRIVATE	Private sources: either Large Farms or Laboratories
UNI	Public Universities
ORG	Non-governmental organizations
SMT	Scientific measurement and testing
Codes	Information Attributes (INFOATTRIBUTE)
UNCERTAIN	The information is uncertain
VARIABLE	The phenomena is variable
POSSIBLE/NOTPOSSIBLE	It is possible/not possible to know about that phenomena (general)
ONLYGOD	Only God knows what will happen in the future
EXPERTS	Information is trusted because it is made/provided by experts
USED/NOUSED	The information is used/not used
MATCH	The information is accurate because it matches what I experience
NOMATCH	The information is not accurate because it does not match my experience
NOCOMS	The information is not trustworthy because there is bad communication
FRAGMENT	The information I want is fragmented and hard to access
PUBLIC	The information is trustworthy because it comes from a public source (university)
RATING	Indicates where an accuracy or trust rating was provided
NEED	Indicates where a specific information need was mentioned

