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**Planning and Adaptation Measures for Urban Slum
Communities in West Africa: Stochastic Rainfall
Modeling Applied to Domestic Rainwater Harvesting
and Climate Change Adaptation**

By

Joshua R Cowden

A DISSERTATION

Submitted in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY IN ENVIRONMENTAL ENGINEERING

MICHIGAN TECHNOLOGICAL UNIVERSITY

2008

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This dissertation, “Planning and Adaptation Measures for Urban Slum Communities in West Africa: Stochastic Rainfall Modeling Applied to Domestic Rainwater Harvesting and Climate Change Adaptation,” is hereby approved in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY IN ENVIRONMENTAL ENGINEERING.

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Abstract

Over half of the world's population is living in urban settlements, and most urban growth is occurring in developing countries. These countries' economies are often unable to accommodate these rural-urban immigrations, resulting in millions of people settling in insecure communities known as urban slums. Current efforts to prevent urban slums include UN-HABITAT strategies to upgrade slums and stimulate urban/regional development. Urban metabolism analysis, which studies material and energy flows/stocks through urban processes, help decision-makers better understand their urban system. Nine lessons from past urban metabolism studies are presented to assist in finding answers on how to best solve urban slum challenges.

Worldwide, improved water access rates are lowest for Sub-Saharan Africa and these low rates have important implications on the health and economy of the region. Domestic rainwater harvesting (DRWH) is proposed as a potential mechanism for water supply enhancement, especially for the poor urban households in the region, which is essential for development planning and poverty alleviation initiatives. Several parsimonious stochastic rainfall models are developed and compared for application to DRWH assessment in West Africa. A first-order Markov occurrence model with a mixed exponential amount model is selected as the best option for unconditioned Markov models. However, there is no clear advantage in selecting Markov models over spell-length models for DRWH, with each model having distinct strengths and weaknesses. It is clear DRWH can be successfully used as a water enhancement mechanism in West Africa for significant portions of the year.

Climate model output is used to determine climate change impacts to DRWH and to assess the technology as an adaptation measure to climate change. Several statistical downscaling methods are used to downscale multiple climate models to the local level. Climate change is expected to have little impact on DRWH reliability in West Africa by the mid-21st century, with only slight temporal shifts in rainfall. Developing communities in this region can invest with confidence in DRWH systems for drinking water enhancement. Study results also suggest that community improvements toward implementing DRWH systems should be focused on increasing water storage, due to storm size frequency changes.

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Chapter 1 Objectives, Introduction, and Organization

1.1. Objectives

Human civilizations and the natural environment have always been subject to change as they both respond and adapt to new threats and opportunities. Global change is rapidly advancing, and may soon overwhelm this ability to adapt. Global change comes in many forms, including land use, climate, and consumption, and with the human sphere being intertwined with the natural ecology of the planet, what impacts one can no longer be ignored by the other. This research has three objectives in an exploration of possible solutions to the global change issues facing West African urban populations, especially challenges related to improved water access:

- Build several lessons for slum communities and their host cities based on the experiences garnered from urban metabolism studies in the developed world.
- Assess the feasibility and reliability of domestic rainwater harvesting systems in West African slum households using stochastic weather generator models.
- Assess the potential impacts of climate change on domestic rainwater harvesting systems in slum communities by statistically downscaling global circulation model (GCM) predictions.

1.2. Introduction

1.2.1. Urbanization

The world's urban population in 2005 was 3.15 billion and by 2030 will increase to 4.91 billion, nearly 60% of the global population (UNESA, 2006). The next few years will see over half of the global population living in urban areas for the first time in

recorded history. This urbanization, however, is not evenly distributed throughout the world. Developing nations are experiencing dramatic shifts from their large rural base to urban regions due to rural economic decline, wars, drought, etc., and are expected to account for and absorb most of the world's total population growth between 2000 and 2030 (UNESA, 2006). Sub-Saharan Africa is currently experiencing some of the planet's highest urbanization rates (UNESA, 2006). West African urban populations, already the highest in sub-Saharan Africa, will continue to grow in the coming decades, even under a declining urban growth rate (Figure 1-1 and Figure 1-2).

Rapid population growth strains urban water supplies and infrastructure, as well as the local government's capability of providing new infrastructure to what often are large, illegal settlements (Cowden et al., 2006; UN-HABITAT, 2003). At the same time, climate change has the potential to have a large impact on water availability because 20% of the one billion people estimated to experience water scarcity by the year 2025 are associated with direct effects of climate change (Vorosmarty et al. 2000). Figure 1-3 and Figure 1-4 illustrate the improved water access deficiencies and associated lack of sanitation for urban areas in West Africa, which leaves millions at risk to water-borne disease. The northern areas of West Africa below the Sahara do suffer from physical water scarcity; however, many of the coastal regions containing most of the population seem to have adequate hydrologic resources, pointing to limited economic and planning capacity as the culprit for poor drinking water access (Cowden et al, 2006).

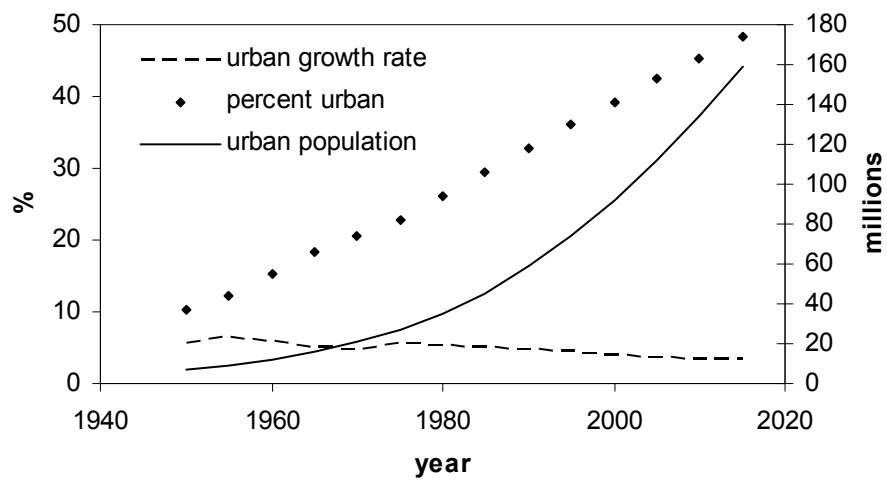


Figure 1-1: West Africa Urban Population and Growth Rates
(Figure created by author from data in UNESA, 2006)

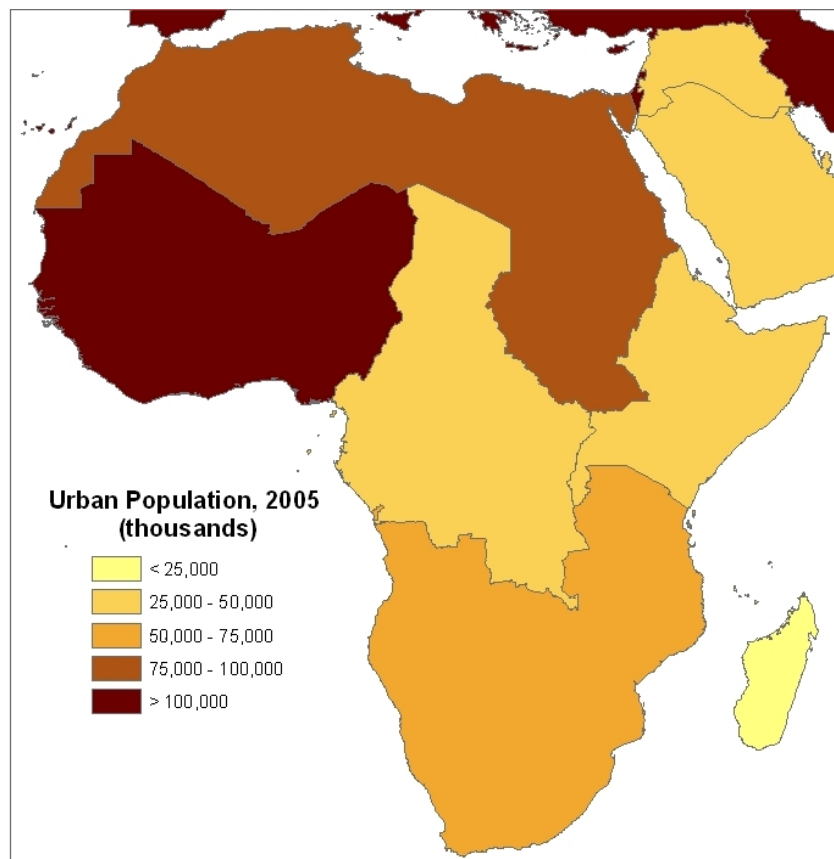


Figure 1-2: Urban Population Totals in Africa (Map created by author from data in UNEP, 2005)

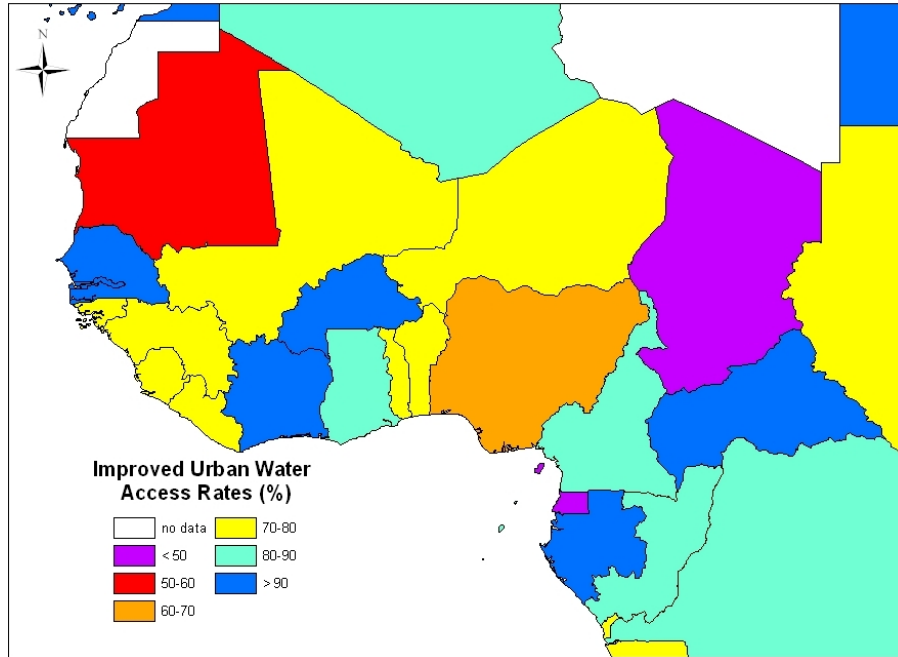


Figure 1-3: Improved Urban Water Access Rates in West Africa (Map created by author from data in UNEP, 2005)

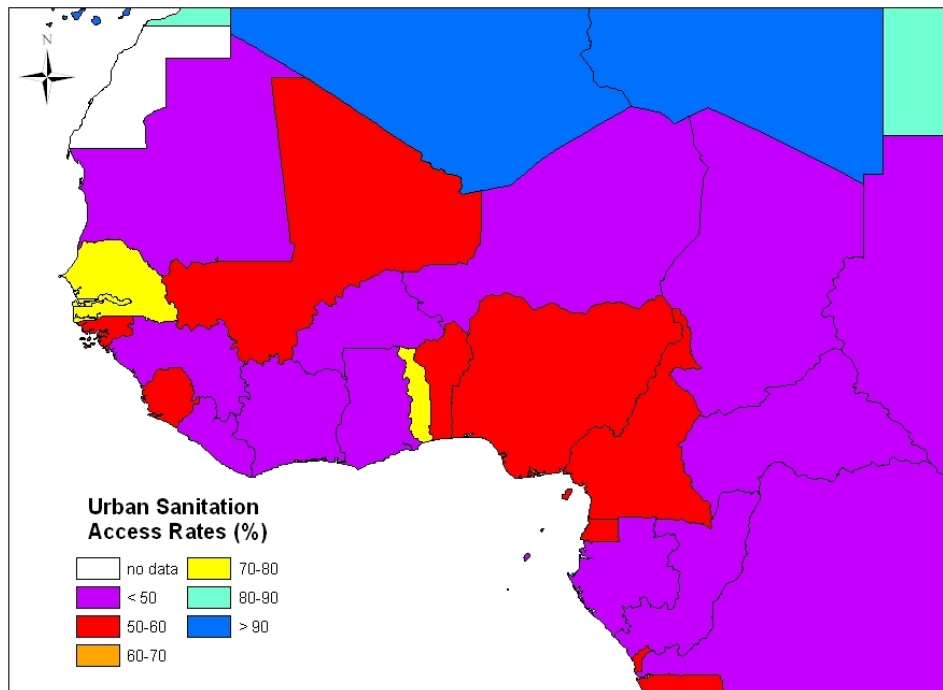


Figure 1-4: Urban Sanitation Access Rates in West Africa (Map created by author from data in UNEP, 2005)

1.2.2. Climate

The climate of West Africa is variable both spatially and temporally (Figure 1-5). Rainfall is relatively abundant in the humid tropics along the southern coastal areas. The Sahelian region, the boundary between the Sahara desert and the more humid coastal and interior regions, is more arid and therefore more susceptible to unexpected rainfall. Much of the region experiences an annual wet and dry oscillation, associated with movement of the Inter-tropical Convergence Zone (ITCZ). The ITCZ is the boundary in which the trade winds of the Northern and Southern hemispheres meet, creating a band of low pressure and associated thunderstorms around the equator. The arrival of these systems creates monsoon conditions during the wet season for much of the tropics (Sultan and Janicot, 2003).

Interannual climate variability is also evident in the area, with a major drought occurring in the early 1970's and 1980's, and general drought conditions existing from the late 1960's into the 1990's (Le Barbe et al., 2002). Drought conditions in the area have been strongly correlated to sea surface temperatures. Temperature variations in the Gulf of Guinea and the tropical Atlantic, and the associated atmospheric responses, have been shown to explain historical changes in wet and dry precipitation patterns in both the Sahel and Guinea Coast (Balas et al., 2007; Giannini et al., 2003; Hoerling et al., 2006). Interannual variability can disrupt the stationarity of precipitation record of limited length. Rainfall records during the latter half of the 20th century show slight non-stationarity due to a rising trend of precipitation as the aforementioned drought ended.

The impacts of climate change on the precipitation patterns of West Africa are uncertain at this time. Many of the climate models are incapable of producing current

climate patterns associated with the West African monsoon (Cook and Vizzy, 2006).

Several of the models do not agree on the sign change of precipitation impacts in the coming decades; however general conclusions indicate a drying in the sub-tropics due to minor increases in precipitation in the tropical regions (Christensen et al., 2007).

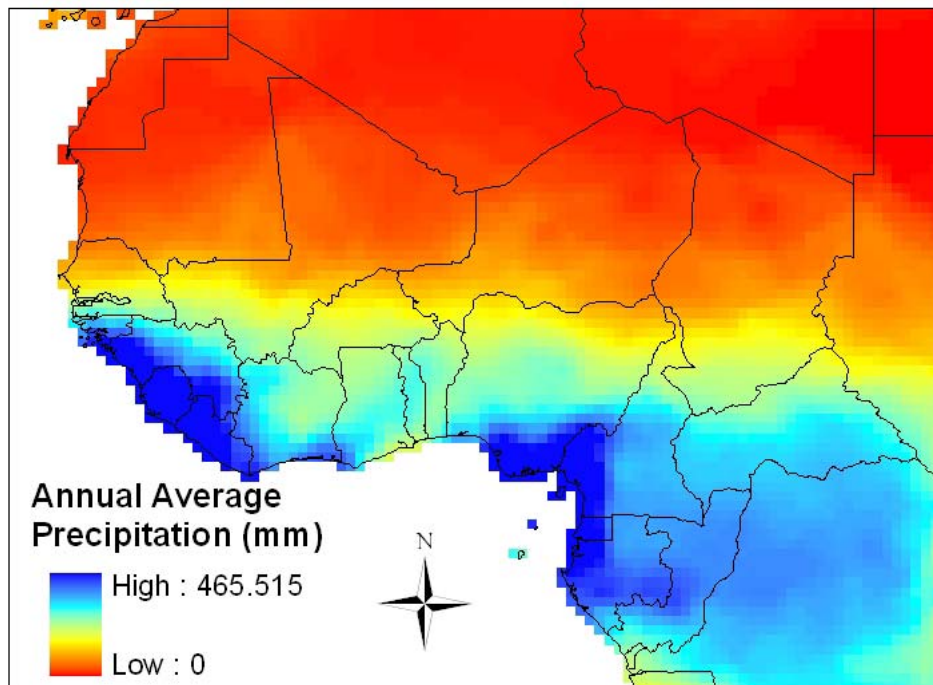


Figure 1-5. Annual Precipitation Patterns West Africa (Map created by author from data in VASCLimO, 2005)

1.2.3. Urban Slums

Rapidly growing cities challenge efforts to improve quality of life and environmental conditions for their inhabitants, as well as cause environmental and economic change on a global scale due to high material consumption, fuel use (i.e. greenhouse gas emissions), waste production, and land use changes (e.g. deforestation). As urban populations increase in cities with inadequate services, so does the percentage of urban slum dwellers, defined as lacking any combination of adequate and safe drinking

water, sanitation, durable housing, living space, and security of tenure (UN-HABITAT, 2005). Unfortunately, slum dwellers often do not have the political decision-making access to change these conditions on a community-wide scale (UN-HABITAT, 2005). In 2001, there were 924 million slum dwellers worldwide living in these conditions, a 28% increase from 1990 (UN-HABITAT, 2005). The slum dweller population in Sub-Saharan Africa represents 72% of the urban population.

The world community has resolved, through the United Nations Millennium Development Goals (MDG) Target 11, to achieve “significant improvement in the lives of at least 100 million slum dwellers” by 2020 (United Nations, 2005). MDG Target 10 aims to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. Abundant, improved water is key to the health and quality of life of slum dwellers, but urban research indicates that clean water access rates are dismal in many slum areas, with many more cities forecasting an inability to maintain access to growing demand (UN-HABITAT, 2003).

The challenges to slum water provision brought on by increasing urbanization are also exacerbated by predicted climate change scenarios. Understanding the dynamics between slum communities, their associated governments, and their surrounding environment are essential in achieving and surpassing the MDG goals. The challenge is daunting, however, as the number of urban slum dwellers increases. If slum dweller proportions remain the same, West Africa could see an additional 34 million urban dwellers living in these conditions, possibly negating MDG Target 11 efforts. Chapter 2 discusses urban metabolism methodologies and how they can increase understanding between slums and their environment.

1.2.4. Domestic Rainwater Harvesting

Domestic rainwater harvesting (DRWH) is an ancient technology still practiced formally (e.g. permanent storage systems) and informally (e.g. pots under roof edges) in many dry and wet climates alike. DRWH has been experiencing increasing popularity in providing water where supplies are low due to water scarcity or poverty. These systems may be very compatible to the conditions found in impoverished urban communities, as they save time, money, and are less complex than other centralized treatment technologies (Thomas, 1998).

This technology may also empower slum households in enhancing their own water supply, regardless of the availability and willingness of government infrastructure support and international economic aid (Cowden, 2006). DRWH can be a viable replacement for conventional services that are not being provided due to their illegal tenure condition. Large scale community planning, management, and operation issues are also negligible as this technology is primarily managed at the household level. Finally, once in place, the resource is provided at no monetary cost or travel time to the slum dweller. Granted, all these advantages are dependent on adequate rainfall supplies, and slum dwellers must be provided access to information that will assist them in decisions regarding rainwater harvesting. Figure 1-6 illustrates the area of Africa where DRWH is capable of enhancing domestic water supplies.

1.2.5. Stochastic Weather Generators

Extensive rainfall records are needed to adequately assess DRWH reliability. Complete or long daily rainfall records, however, are not available in many regions of sub-Saharan Africa. Stochastic weather generators offer a solution by creating multiple,

continuous synthetic sequences of rainfall for use in hydrologic modeling and reliability assessment (Wilks and Wilby, 1999). Stochastic weather generators can also be used in climate change impact assessments via parameter adjustment by global climate model output (Semenov and Barrow, 1997; Wilby et al., 1998). Chapter 3 discusses the methodology and application of weather generators to DRWH systems in West Africa.

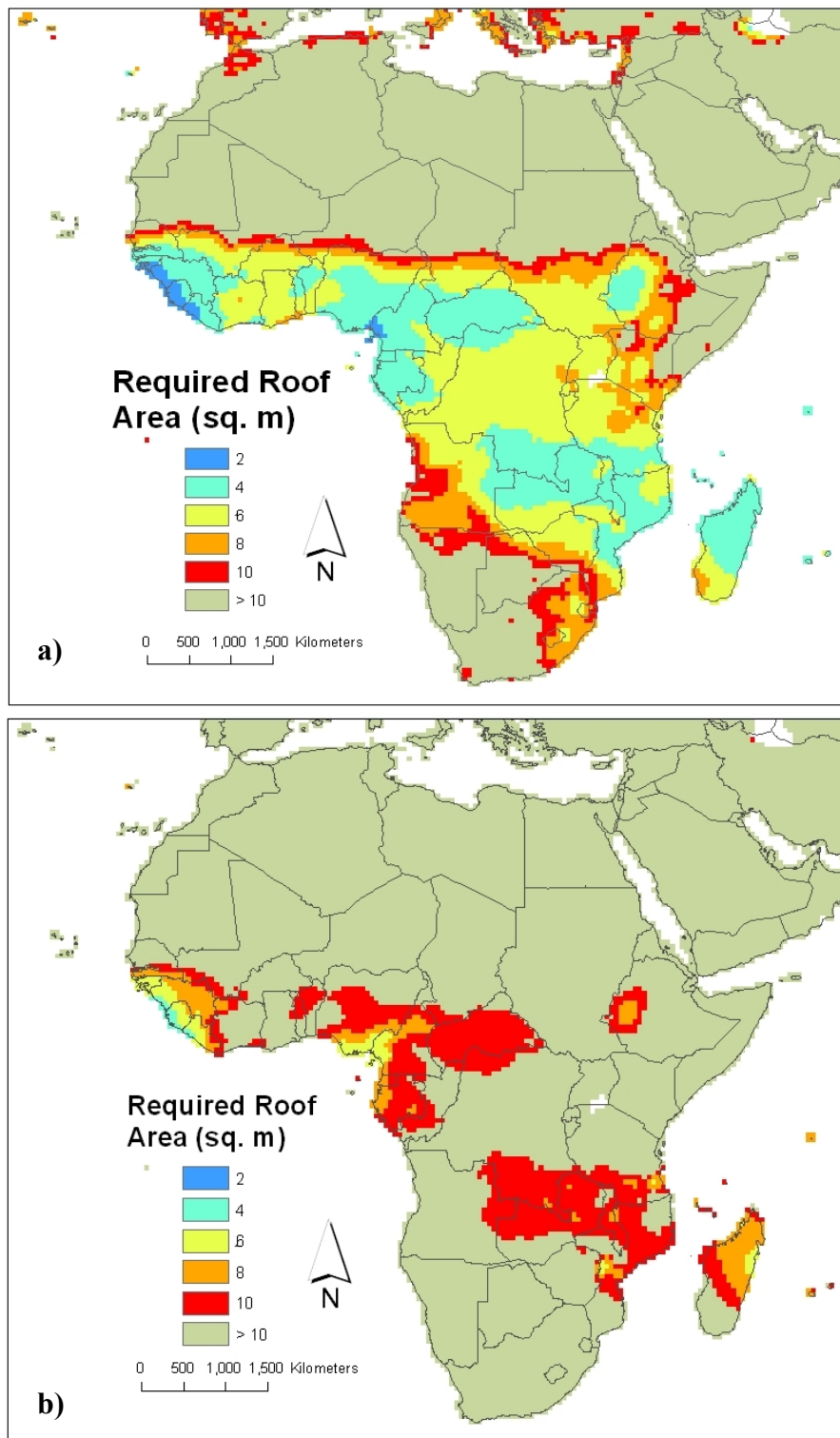


Figure 1-6. Required roof area (m^2/capita) to supply at least three months of a) 20 L/day/capita, and b) 50 L/day/capita of rainwater (Cowden, 2006; With permission from ASCE)

1.2.6. Statistical Downscaling

The following sections discuss the methods of using GCM data to determine climate change impacts. These methods are also summarized in Chapter 4, along with their use in determining climate change impacts on domestic rainwater harvesting.

1.2.6.1. General Circulation Models

The past twenty years have seen remarkable advances in our understanding of climate processes and the transfer of this knowledge into climate models. The most advanced and complex of these models are coupled atmosphere-ocean general circulation models (GCM), which are commonly used for climate projections based on anthropogenic forcings (e.g. greenhouse gas emissions) (IPCC, 2001). GCMs, however, are currently not capable of providing adequate weather variable outputs at the spatial or temporal scales required by most hydrological models, making direct GCM climate change impact studies vague at best. Using current GCM output for regional or local studies is inadvisable for two reasons: 1) the coarse spatial scale of GCM requires certain weather variables, such as precipitation, to be parameterized, and therefore more vulnerable to large-scale model error easily propagated down to local situations; and 2) sub-grid scale forcings, such as land-use, topography, and cloud cover, are often not accounted for in GCMs, even though these forcings are important in regional weather variability (Wilby and Wigley, 1997; IPCC, 2001).

Initial attempts to downscale GCM results to local impacts used the change factor method, where only the differences between controlled and perturbed GCM runs were applied to a local baseline climate. For example, if the GCM predicts a 2-degree temperature rise between simulated periods of 1990 and 2080, then 2 degrees would be

added to the observed 1990 temperature records to simulate the predicted future.

Although there is no defined relationship between the coarse and finer scale variables, and no change in variable time structure, this method is useful for rapid climate change scenario analysis or where resources are not available for more complex methods (Wilby et al., 2004; Diaz-Nieto and Wilby, 2005). Recognizing the need for variable temporal structure in impact studies, several more complex methods have been developed, categorized as dynamical and statistical downscaling methods (Figure 1-7).

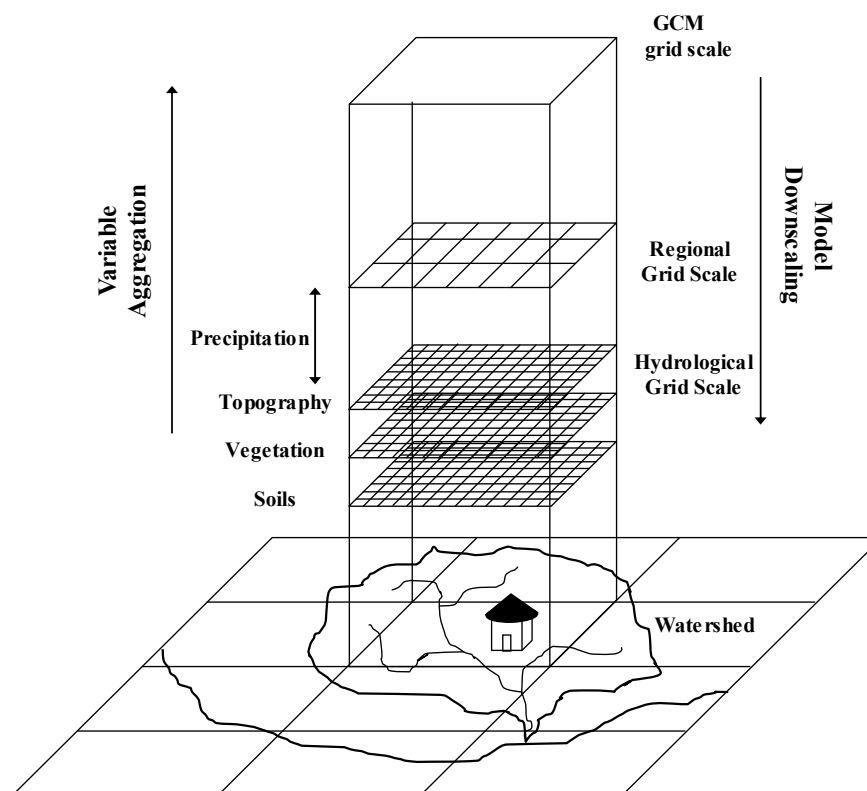


Figure 1-7: General Approach to GCM Downscaling

Variables essential to watershed modeling, such as precipitation and soils, are not modeled in GCMs at the necessary scale. Statistical downscaling GCM output ties large-scale predictions to local variable response. (adapted from Wilby and Dawson, 2004)

1.2.6.2. *Dynamical Methods*

Dynamical methods increase the horizontal (i.e. spatial) resolution of climate models. Impact studies using high and variable resolution Regional Climate Models (RCM) and GCMs are becoming more common, hopefully leading to performance analysis of such models (IPCC, 2001). Ultimately, physically-based climate models with fine enough resolution to account for all global and local forcings would best project the future climate and indeed, this is the goal of GCM research. Physical understanding and computational ability, however, currently prevent such models, especially in the developing world where computational and monetary resources are low.

1.2.6.3. *Statistical Methods*

Statistical downscaling (SD) methods define a quantitative relationship between large-scale atmospheric predictors and local surface variables or predictands (Wilby et al., 2004). The general form of this relationship is

$$R_t = F(X_T) \quad \text{for } T \leq t \quad 1-1$$

where R_t is the predictand at time t , F is the method to quantify the relationship, and X_t is the predictor set of current or past atmospheric variables (Charles et al., 2004). Possible predictors include pressure, geopotential height, wind speed and direction, precipitation, and humidity. Predictor sets can be derived from the GCM results, but can also come from RCMs, creating a hybrid dynamical-statistical downscaling approach. IPCC guidelines ultimately recommend predictor variables to be strongly correlated with the predictand, make physical sense, be realistically characterized by the GCM, able to represent interannual variability, and reflect the climate change signal (Wilby et. al, 2004).

1.2.6.4. Downscaling Models

Statistical downscaling models can be grouped into three broad categories, namely regression models, weather classification schemes, and weather generators (IPCC, 2001). Regression models use linear or nonlinear regression transfer function to relate the predictors and predictand. Weather classification schemes or weather typing uses synoptic similarity to classify or group days into a finite number of discrete weather types or “states”. Predictand values or probabilities are then assigned to each class by weighting the predictand(s) with the relative frequencies of the weather classes. Weather generators are stochastic models able to reproduce the statistical characteristics of a local predictand. The models are conditioned on large-scale predictors, weather states, or precipitation properties

1.3. Organization

This dissertation is organized into the following chapters.

- “Urban Metabolism Analysis: Nine Lessons for Urban Slums in the Developing World” (Chapter 2)
- “Stochastic Rainfall Modeling in West Africa: Parsimonious Approaches for Domestic Rainwater Harvesting Assessment” (Chapter 3)
- “Climate Change Impact Assessment on Domestic Rainwater Harvesting in West Africa” (Chapter 4)

Chapter 2 Urban Metabolism Analysis: Nine Lessons for Urban Slums in the Developing World

2.1. Introduction

The world's rural population in 2003 was 3.26 billion and is predicted to decrease to 3.19 billion by 2030. For the first time in human history, human urban population will exceed rural population in 2007 (Figure 2-1) and by 2030, 60.8% of the global population is expected to be living in urban areas. During this period, the world's urban population growth rate is predicted to be 1.83%, nearly double the world's total population growth rate (UNESA, 2004).

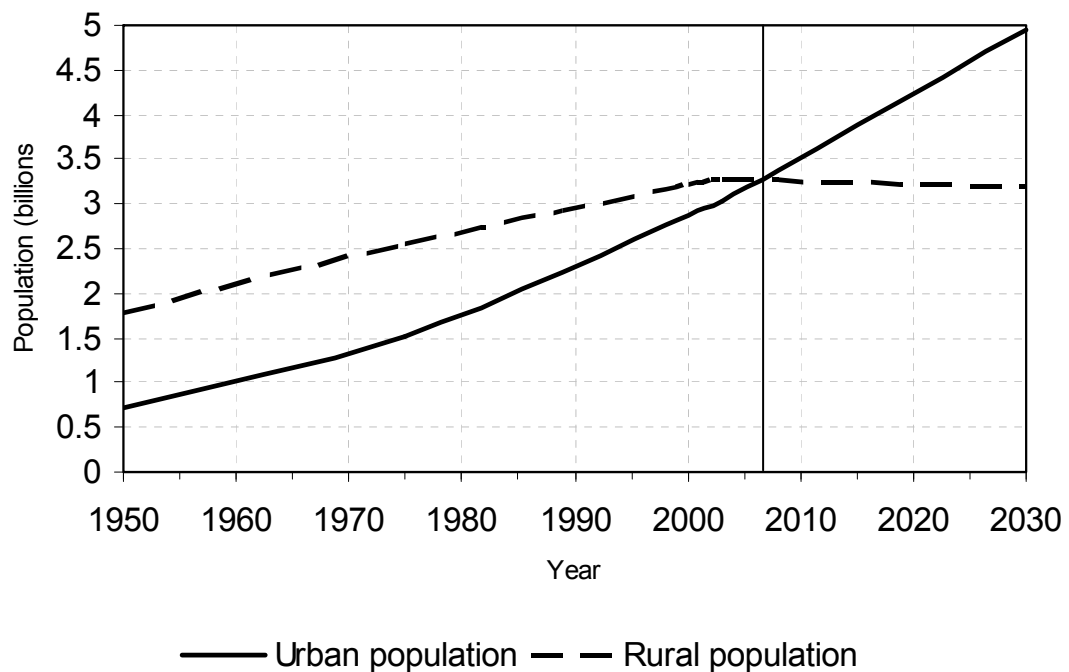


Figure 2-1: Urban and Rural Populations of the World: 1950-2030 (Figure created by author from data in UNESA, 2004)

The large increase in urban population is not evenly distributed throughout the world, however. Most of the more developed countries are already highly urbanized, Europe being 73% urbanized and North America being 80% urbanized in 2003. Although these percentages are expected to increase in the future, they are small compared to the rate of urbanization occurring in developing nations, which are currently experiencing dramatic shifts from their large rural base to urban regions. These urban regions of the developing world are thus expected to account for and absorb most of the world's total population growth between 2000 and 2030 (UNESA, 2004). These rapidly growing cities are and will continue to present unique and significant challenges in sustaining a quality of life and a clean environment for their inhabitants (Ezcurra & Mazari-Hiriart, 1996).

2.1.1. Urban Slums

As the number and size of the world's cities increase, so do the absolute numbers of people living in urban poverty. These urban poor are often designated as slum dwellers, defined as lacking any combination of adequate and safe drinking water, sanitation, durable housing, living space, and security of tenure (UN-HABITAT, 2005). These inadequate conditions results in slum dwellers being more vulnerable to disease, natural disasters (e.g. flooding, land slides, earthquakes), crime, and inequality. Urban slums, especially in developing countries, are often settled by large masses of people fleeing rural economic decline, wars, drought, etc., and are considered illegal squatter settlements on public or private land. These people are given little to no political decision-making access and are usually denied basic municipal services (UN, 2005). As a result, urban growth in developing countries has occurred in a haphazard manner, with

little planning regarding the welfare and sustainability of the community or the environment.

In 2001, there were 924 million slum dwellers worldwide living in these conditions, a 28% increase from 1990 (UN, 2005). However, slum dwellers as a percentage of the total urban population have decreased in most developing regions of the world during the same time period (Table 2-1). Due to rising urbanization trends, though, the absolute number of slum dwellers is projected to grow to 1.4 billion people by 2020 if there is no significant improvement to urban slums. Even with decreasing trends in slum dweller proportions, some areas of the world continue to have high percentages of their urban population living in slum conditions (e.g. 72% of urban Sub-Saharan Africans are slum dwellers).

Table 2-1: Urban Slum Dweller Population and Percentage of Urban Population (UN, 2005)

	Slum dwellers (millions)		Slum dwellers as percentage of urban population	
	1990	2001	1990	2001
World	721.6	924.0	31.6	31.6
Developed Regions	41.8	45.2	6.0	6.0
CIS, Europe	9.2	8.9	6.0	6.0
CIS, Asia	9.7	9.8	30.3	29.4
Developing regions	660.9	860.1	47.0	43.3
Northern Africa	21.7	21.4	37.7	28.2
Sub-Saharan Africa	101.0	166.2	72.3	71.9
Latin America and the Caribbean	110.8	127.6	35.4	31.9
Eastern Asia	150.8	193.8	41.1	36.4
Eastern Asia excluding China	12.8	15.6	25.3	25.4
Southern Asia	198.7	253.1	63.7	59.0
South-Eastern Asia	49.0	56.8	36.8	28.0
Western Asia	28.6	40.8	34.4	35.3
Oceania	0.4	0.5	24.5	24.1

2.1.2. Urban Slums Programs and Policies

One of the first major global policies that specifically targeted the often neglected urban slum dwellers was the United Nations Millennium Development Goals. This series of goals, targets, and indicators was developed to “uphold the principles of human dignity, equality and equity at the global level”, with specific goals aimed at, e.g., eliminating poverty, gender inequality and child mortality (UN, 2000). Goal 7 endeavors to ensure environmental sustainability, with Target 11 being to achieve “significant improvement in the lives of at least 100 million slum dwellers” by 2020 (UN, 2005). The United Nations Human Settlements Programme (UN-HABITAT) was delegated the responsibility of assisting member states of the UN to achieve Target 11.

Urban slums often result from poor planning and lack of funds in both the government and the slum populations (Cohen, 2004). UN-HABITAT has developed several global, regional, and local programs to assist countries in improving slum dwellings and building cities around sustainable principles. Most of these programs, such as the Urban Management Programme and the Sustainable Cities Programme, have objectives in strengthening urban planning/management capacity and efficiency in order to improve resource use, environmental conditions, and economic growth. To reach these objectives, these programs often strive to what the Urban Management Programmes describes as “consolidate experiences and deepen knowledge and understanding on urban management” (UN-HABITAT, 2005). The aims and objectives of UN-HABITAT programs stem from a three-part strategy developed for tackling slum growth (Table 2-2).

Table 2-2: UN-HABITAT Strategies to Improve Slums and Prevent Future Slum Growth
(UN-HABITAT, 2005)

- | |
|--|
| <p>A) Slum Upgrading- accomplish physical, social, and governance upgrading of existing slums</p> <p>B) Urban Development- improve job creation via effective management of land use, revenue base, infrastructure, amenities, security, community empowerment, etc.</p> <p>C) Regional Development- maximize positive and reduce negative impacts of urbanization via regional investment, distribution of development services,</p> |
|--|

The three strategies of slum upgrading and urban/regional development have been put into practice to not only improve existing slums, but also to spur sustainable economic development in order to prevent new slum growth. These strategies and the programs that implement them have been successful in reducing proportions and absolute numbers of urban slum dwellers in several cities in China, Thailand, India, and Columbia. Their success seems to be founded on the same principles of building efficient networks, increasing understanding of the urban system, developing effective urban growth planning strategies, strong and wise infrastructure investment, and continuing commitment at all levels of government (UN, 2005). An emerging tool that fits within the UN-HABITAT slum strategies and can aid city planners and managers in understanding their urban systems and developing planning strategies for urban slums is urban metabolism analysis.

2.2. Urban Metabolism Lessons

Although not a biological entity itself, a human city can be described metaphorically as having a metabolism, with various energy and material flows moving through the urban system. The urban metabolism concept was initially developed in the 1960's by Abel Wolman, and is defined as the sum of urban processes (technological and societal) that provide sustenance, maintenance, growth and innovation in cities, as measured through stocks and flows of energy and materials. These large fluxes, stocks, and processes of materials and energy are one of the most prominent features of a city and are used by large populations at high densities to sustain health, economy, and infrastructure (Wolman, 1965; Baccini and Brunner, 1991).

For example, the United States, which is currently highly urbanized (~80%), went from consuming ~200 million metric tons of construction material in 1900, to 2,800 million metric tons in 1995 (Matos and Wagner, 1998). This material flux is dwarfed by the amount of water and air that flow through urban systems each year. Cities also produce large waste outputs which have often been discarded back to the natural environment, causing ecological damage.

Several methodologies have been used to represent the metabolism of cities, including material flow analysis, embodied energy analysis, and ecological footprinting (Hendriks et al., 2000, Huang and Hsu, 2003; Wackernagel and Rees, 1995). Figure 2-2 illustrates a basic material flow analysis methodology common to many urban metabolism studies. This knowledge can assist decision makers to better manage resources and waste as well as develop other feedback loops between urban policy and

the environment, thereby revealing the directions best suited for sustainable development (Kennedy et al., 2007; Baccini and Brunner, 1991).

To date, a handful of urban metabolism studies have been conducted on large cities in developed countries (e.g. Toronto, Vienna) (Sahely et al., 2003; Hendriks et al., 2000). However, none are known to be performed on rapidly expanding urban slum communities in the developing world. Understanding the material flows, storages, and processes and how they can be related back to policy making (i.e. feedback mechanisms) is vital if the world's developing cities and urban slum communities hope to improve material and energy efficiency while increasing quality of life.

The knowledge gained through existing metabolism studies should be considered by international, national, and regional decision makers as a potential pathway to upgrade current slums and improve regional and urban development in a sustainable manner. Accordingly, the objective of this paper is to assemble several lessons learned from previous urban metabolism studies for potential application to developing cities and slums, as well as offer guidance in conducting studies for these growing cities. These lessons can help illuminate the plans best suited for slum improvement and prevention, based on UN-HABITAT strategies. Table 2-3 and the ensuing text highlight nine lessons derived from urban metabolism studies, with the first five ordered to correspond to the procedures of a typical urban metabolism study.

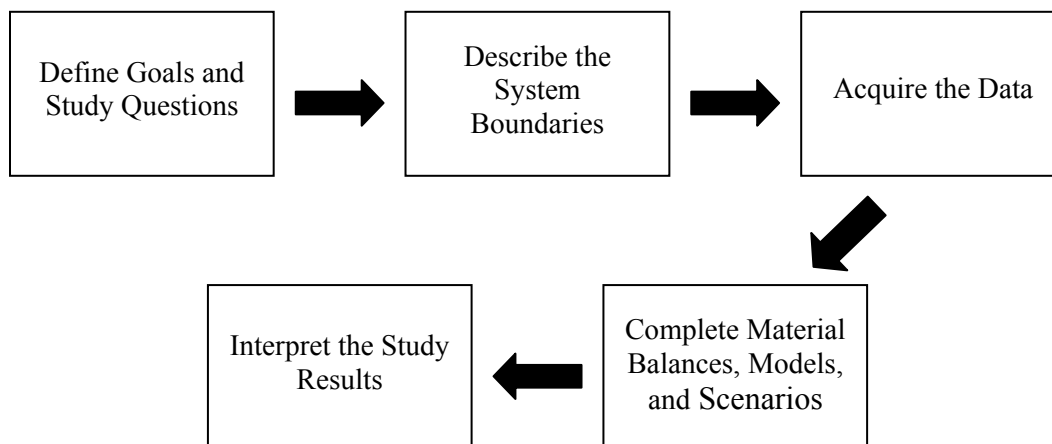


Figure 2-2: Material Flow Analysis Methodology for Use in Urban Metabolism Studies

2.2.1. Metabolism Lessons for Developing Countries

2.2.1.1. *Integrate Models*

Once urban metabolism methodology found a small niche in academia it was realized that for these models to truly be applicable to urban policy-making, social and economic issues must be connected in some manner to the metabolic pathways. Urban ecologists stress that to fully understand urban systems a framework must be employed that integrates environmental and socioeconomic processes (Pickett et al., 2001). Urban metabolism studies which do not take into account these socioeconomic drivers are limited in their ability to uncover root causes of environmental and social problems (Fung and Kennedy, 2005). This is especially true for urban slums where environmental conditions are often a result of socioeconomic factors and where socioeconomic conditions can be a result of environmental factors.

Table 2-3: Urban Metabolism Lessons for Developing Countries

Lesson	Applicable UN-HABITAT Slum Strategy	Details
Integrate Models	Urban Development, Regional Development	Use an integrated framework when studying the metabolisms and socioeconomics of urban systems.
Include the Whole Urbanized Region in Specifying Metabolism Boundaries	Urban Development	Include smaller peri-urban systems in metabolism analysis by using urban conditions or indicators as guides for policy, not just political boundaries.
Define Efficiency	Urban Development, Regional Development	Establish comprehensive, accurate, and efficient goals/indicators for use with metabolic data.
Understand the Mechanisms Within “Black Box” Processes	Slum upgrading, Urban Development	Gather and analyze detailed process information in order to improve resource management and appropriate technology implementation.
Conduct Metabolism Checkups	Urban Development	Continue to monitor a city’s metabolism to understand the long-term needs and impacts of slums, allowing decision makers to find, solve, and/or prevent problems.
Mitigate Solid and Hazardous Waste Outputs	Slum Upgrading, Urban Development, Regional Development	Create and enforce sound policy in material use reduction, recycling, treatment, and disposal based on metabolism knowledge.
Manage Water and Wastewater Flows	Slum Upgrading, Urban Development, Regional Development	Understand and manage the water and nutrient balances of both city and slum dwellings without negating water/sanitation access through damaging surrounding ecosystems.
Extend Metabolism Parameters to Measure Quality of Life	Slum Upgrading	Find the right balance between livability and metabolism indicators to improve the lives of slum dwellers without necessarily increasing consumption.
Pay Attention to “Change in Storage”	Urban Development, Slum Upgrading	Understand imbalances and accumulations of materials and waste within the urban system to prevent future problems and to utilize potential resources.

A recent metabolism study that attempts to combine multiple models is an integrated macroeconomic/metabolism model of the Greater Toronto Area (Fung and Kennedy, 2005). The econometric modeling technique was noted to be less complex than other economic modeling techniques, but still able to model long-term urban dynamics and maintain the option of connecting with more detailed microeconomic models. Multiple-Scale Integrated Assessment of Societal Metabolism (MSIASM) is another recent approach to integrated modeling and provides a framework for connecting biophysical and economic variables in an analysis of human development towards sustainability (Giampietro et al., 2001). Developing cities are urged to use an integrated framework when studying and/or attempting to improve the metabolism and socioeconomics of their urban system. If they do not integrate these analytical techniques they run the risk of shifting their problems, such as air pollution or hazardous waste, to other sectors, locations, and communities, including slum dwellings which have little defense against their city's shortsightedness (Giampietro et al., 2001).

2.2.1.2. Include the Whole Urbanized Region in Specifying Metabolism Boundaries

Many people think of large megalopolises, such as Mexico City and Tokyo, when they hear about increasing urbanization. Although these metropolises are expected to increase in number, most of the world's urban population currently resides in cities with less than 500,000 people and this trend is expected to continue in the future (UN, 2004). In developing countries these small urban settlements are often associated with one, large city, and herein lies the problem.

The definition of what is urban is often arbitrary and can change over time to best suit the statistical desires of the country (Cohen, 2004). City political boundaries in

developing countries are often drawn so that many outlying areas (e.g. slum areas) are excluded, thereby perpetuating these areas' lack of infrastructure, service, tenure, and government. Ignoring these populations, however, can have detrimental consequences as many cities are dependent on their surrounding areas, whether urban or rural, for resource supply as well as residual disposal. Vienna discovered a strong material and waste sink dependence on its outlying areas (Hendriks et al., 2000), and if developing cities ignore their urbanizing outskirts, a false sense of metabolism improvement will be seen as unsustainable practices (e.g. solid waste dumping, toxic material use) are moved outward into ignored slum neighborhoods.

Developing cities must not disregard that the entire urban system, including the urban core, suburban areas, outlying cities, and even surrounding rural areas are ecologically and economically connected (Pickett et al., 2001). An urban metabolism study of Toronto recognized these connections and included several surrounding municipalities in what the study termed the city-region or Greater Toronto Area (Sahely et al., 2003). If and when developing countries use urban metabolism methodologies to become more sustainable, they must also include smaller outlying systems in the analysis. To improve urban slums, cities must use the entire urban system as a target for policy, and not just convenient political boundaries.

2.2.1.3. Define Efficiency

One of the benefits of conducting urban metabolism studies, especially multiple studies over time, is the ability to gauge the city's improvement in resource and energy use efficiency. A city's urban metabolism data are useful for comparative analysis, whether it is to the city's own past metabolism results or to those of another city (Sahely

et al., 2003). These comparisons can help decision-makers see the sustainability or efficiency of management practices. The metabolism data can also be compared to previously set goals and/or indicators dealing with resource use and even the improvement of urban slum dwellers' lives.

The development of sustainable goals and/or indicators combined with metabolism data can help cities improve their decision making by highlighting potential environmental problems (e.g. surface water eutrophication) before they become a crisis (For more detail on indicators see Alberti, 1996; Foxon et. al., 1999; Azar et. al., 1996). One concern with goals and indicators is often there are problems in defining what is efficient and sustainable (Bohle, 1994). For instance metabolism results may indicate that a city is improving and reaching its goals regarding resource efficiency, as desired by UN-HABITAT programs, but it may be at the cost of providing adequate standards of living to urban slum dwellers, an often ignored component of the urban system. The problems in defining efficiency in past urban metabolism studies have often been caused by inattention to social factors, such as race and wealth, which are difficult to account for in metabolic flow analysis (Bohle, 1994). Unless accurate, efficient and equitable goals or indicators are specifically outlined for urban slums, and city resource efficiency definitions encompass slum areas, metabolism data will do little to improve their conditions.

2.2.1.4. Understand the Mechanisms Within “Black Box” Processes

There are several components within a city's metabolism which can effectively be categorized within the concepts of materials, processes, goods, and activities, with examples being surface water, treatment, potable water, and bathing, respectively

(Baccini and Brunner, 1991). Processes create a change in materials and goods, whether in quality or location, thereby enabling these materials and goods to be used in designated activities. Past urban methodologies have often been concerned with conducting mass and energy balances in order to quantify material fluxes through the urban system, treating the processes themselves as “black boxes” (Baccini and Brunner, 1991). Often these “black boxes” are the result of limited data and resources in research, as is the case in many developing countries’ intra-urban food distribution processes (Bohle, 1994).

Although the material balance is still an important tool in urban metabolism research, recent ideas in urban ecosystem analysis require a more detailed look at processes in order to accurately model and manage the material’s interactions and changes within the processes (Pickett et al., 2001). Hong Kong’s second urban metabolism study noted that management patterns of pollution treatment versus prevention inhibited environmental progress (Warren-Rhodes and Koenig, 2001). Understanding the waste processes more thoroughly might have helped reveal alternative residual management options.

Process knowledge is also important when integrating socioeconomic models into the metabolism models. Sustainable material management can only be achieved if the economic, social, and technological drivers are fully understood and integrated into the selection and operation of these processes. For example, urban slums are often in need of basic goods, such as drinking water. There are many treatment processes which could provide this good, but without adequate understanding of how the population’s education, culture, and economics interact with the workings of the process, appropriate technologies which could be sustained by the local population might be overlooked.

Therefore, as developing cities conduct material/energy flow analyses of their cities, including the slums, process information should also be gathered and analyzed to improve resource management.

2.2.1.5. Conduct Metabolism Checkups

A city's growth and development will determine and/or alter its urban form, defined as "the spatial configuration of fixed elements within [the] metropolitan region" (Anderson et al., 1996). Urban form can significantly direct or alter metabolic flows and stocks in a city (Anderson et al., 1996). The flow and stock changes are even more pronounced in the often transient slum dwellings. Due to this inevitable and sometimes rapid change in urban form, any attempt of a developing city to use urban metabolism data to improve water access, sanitation, durable housing, etc., would be meaningless without continual monitoring of the metabolic pathways.

It is apparent that urban slums will not go away in the near future. Long term understanding of the needs and impacts of these communities is therefore needed in order to avoid short-sighted quick fixes that do not lead communities toward sustainable resource use and quality living. Urban metabolism "checkups" also separate vital trends from temporary noise, allowing decision makers to find, solve, and/or prevent environmental problems using sustainable indicators as guides (Warren-Rhodes and Koenig, 2001). Follow-up studies are one of the largest weaknesses in past urban metabolism studies, but they are essential to any long term policy incorporating urban metabolism methodology.

2.2.1.6. Mitigate Solid and Hazardous Waste Outputs

The industrial age ushered in the urbanization of the world's population, with concentrations of industry continuing to draw more people into ever growing and developing urban systems (Bai, 2002). This large concentration of industry with its associated growth of commercial and residential sectors creates a large amount of solid and hazardous waste and is a large and troublesome output of a city's metabolism. Taipei's urban metabolism study suggested that waste dumps were one of the worst environmental problems in the city due to large waste volumes, inadequate treatment facilities, and dwindling landfill sites (Huang and Hsu, 2003). Hong Kong's solid waste output grew 245% between a 1971 urban metabolism study and a follow-up study in 1997 (Warren-Rhodes and Koenig, 2001). Both Taipei and Hong Kong are running out of space for waste and should serve as a warning to any developing city with similar growth characteristics. One review of material and energy flow through several large cities noted that less than 10% of material inputs leaves a city as goods, suggesting that large quantities are exported as waste or are potential wastes to be exported later (Decker et. al., 2000).

An unfortunate side effect of this unplanned waste in developing countries is that often times it finds its way to slum areas. Waste dumps can even promote slum conditions, attested by numerous accounts of makeshift cities springing up around dumps in developing countries across the globe. Some cities have even deliberately exacerbated this scene through industrial relocation, in which polluting industries are exported to outlying communities with little thought as to the health and environmental impacts such a move might cause (Bai, 2002). In order for developing cities to eliminate these

growing waste trends and improve slum conditions, they must have adequate knowledge about material flows so that proper preparation can be made for reducing material consumption, recycling or creating circular metabolic pathways; and for safe treatment or disposal. Urban metabolism analysis can assist in acquiring this knowledge, but it must be acted upon. Hong Kong's initial metabolism study in 1971 offered many suggestions to avoid ecological damage due to over consumption and solid waste generation, but these suggestions were largely ignored by decision makers, resulting in their current deluge of waste (Warren-Rhodes and Koenig, 2001).

2.2.1.7. Manage Water and Wastewater Flows

The importance of water inputs and outputs in a city can not be overstated. Past urban metabolism studies have shown water to be one of the largest, if not the largest, material inputs into an urban system (Decker et. al., 2000; Sahely et al., 2003). Great strides have been made in past decades to improve water supply and sanitation in urban centers across the globe. As of 2002, improved global urban water supply and sanitation coverage was at 95% and 81%, respectively (UNEP, 2005). Regional coverage, however, indicates a continuing need for improvement. For example, most of Sub-Saharan Africa has urban water supply and sanitation coverage below 85% and 50% respectively (UNEP, 2005). Another concern relates back to a country's arbitrary definition of "urban". If these countries do not categorize illegal slum areas surrounding the city as urban, then these populations figure into the rural water and sanitation coverage rates, which are worse than urban rates, sometimes by more than 50%.

In an urban system, water is involved with many processes and activities (e.g. transport, cleaning, consumption) and is considered both a material input and good (e.g.

chemical industry, drinking water) (Baccini and Brunner, 1991). But mismanagement of this vital resource can threaten both human and environmental health. The initial Hong Kong study found water to be highly polluted, with the author cautioning the government to not exceed the water's ability to assimilate waste safely (Newcombe et al., 1978). The follow-up metabolism study found even worse conditions and stated that benefits gained in apparent efficient and sustainable metabolism pathways were outweighed by the environmental degradation caused by some metabolic outputs, such as untreated wastewater (Warren-Rhodes and Koenig, 2001).

Urban metabolism methodologies can assist in making improvements in urban water and nutrient/wastewater management if used effectively by urban planners and understood by decision makers. Urban metabolism shows that nutrients typically enter the urban system in concentrated form (i.e. food) and then are diluted in discharged wastewater, creating potential eutrophication problems in receiving water bodies.

Vienna's metabolism study found that although the Danube River had a high dilution potential, nitrogen discharges were 800 times higher than natural loadings (Hendriks et. al., 2000). Metabolism studies may help to eliminate this linear nutrient pathway by highlighting potential needs and possibilities for wastewater reuse in the agricultural sector, thereby closing the nutrient loop.

Vienna's metabolism study also identified that effective urban wastewater or nutrient output management must include hinterland or outlying areas, which contribute significantly to nutrient levels in the river due to agricultural runoff. This emphasizes the need to include urban slums in any water quality management plan. If a city seeks to improve nutrient pollution without considering hinterland areas, particularly those

inhabited by large slum populations, it is unlikely to develop sustainable nutrient management and wastewater reuse options.

Urban metabolism studies can also help cities map out drinking water flows and help to improve coverage rates. Metabolism data can draw attention to such problems as distribution leaks, rising water tables due to excessive and often unintentional recharge, and sewage/gray water infiltration with its associated health impacts. As cities improve water access to slum dwellings, urban metabolism methodology can again assist in managing the resulting nutrient loadings (Baccini and Brunner, 1991). The ultimate goal is to improve the sustainability and access of the urban slum water system without negating these benefits with rising sanitation problems.

2.2.1.8. Extend Metabolism Parameters to Measure Quality of Life

Material use is one measure often used in urban metabolism studies, with developed cities usually having higher per capita rates of material consumption (Decker et. al., 2000). To reach sustainable levels of material consumption, however, cities must grow without increasing their overall material intensity and in many cases without increasing overall consumption of certain materials, such as scarce non-renewable resources or materials with exhausted waste sinks. This can be difficult for material intensive cities that wish to improve the lives of slum dwellers. Often the first reaction is to build bigger and better housing. Such was the case in Hong Kong, where the government used large amounts of resources to construct resettlement housing, contributing to their large imports and stocks of construction materials. It was noted that this new housing was not effective in improving the lives of slum dwellers, leading to the

conclusion that excessive material consumption does not necessarily lead to a higher quality of life (Newcombe et al., 1978).

The extended metabolism model can assist a city in improving the quality of life for their slum dwellers without increasing material use intensity. The extended metabolism model was refined for use in Australian State of the Environment Reporting and consists of basic material and energy flow analysis coupled with measuring livability indicators (Newman et al., 1996). Livability is defined as “the human requirement for social amenity, health and well being and includes both individual and community well being” (Newman, 1999). Some of the livability indicators include decreasing proportion of substandard housing, but also include reducing crime and infant mortality to increasing leisure and education opportunities. Obviously the world community wishes to eliminate the dangerous, overcrowded, and illegal squatter settlements, and through finding the right balance between livability indicators and metabolism indicators (e.g. reductions in air and water pollution and increases in green space and transportation services), a city would be able to improve the lives of slum dwellers without necessarily increasing material consumption. Follow-up extended metabolism studies on Australian cities may offer more understanding of this balance.

2.2.1.9. Pay Attention to “Change in Storage”

An urban metabolism analysis will show data to address concerns over the sheer magnitudes of resources flowing into cities, and wastes flowing out. The “change in storage”, i.e. the difference between inflows and outflows may, however, be just as critical in the long term.

The importance of managing storage processes may be demonstrated by considering urban groundwater systems in the urban metabolism. Many cities in arid regions suffer from an imbalance in water management whereby large quantities of water are pumped into the cities, but wastewater is not pumped out. Often the wastewater is disposed of by discharge into the subsurface below the city, which causes a rising of the water table. Such rising water tables have been reported for several cities in the Middle East: Riyadh, Jeddah, Damman, Kuwait, Al-Ajman, Beirut, Cairo and Karachi (Abu-Rizaiza 1999). As well as posing problems of groundwater contamination, this rising of water levels threatens urban infrastructure: basements, foundations, tunnels, pipes and cables. In the long run this imbalance in the water component of the urban metabolism may threaten the physical integrity of cities.

Understanding of other storage processes in the urban metabolism is also important. The urban fabric contains many potentially hazardous materials, e.g., mercury, asbestos, PCBs. Modern cities may contain larger volumes of hazardous materials than available space in hazardous materials landfills (Brunner and Rechberger, 2001). Nutrients such as phosphorus and nitrogen also tend to accumulate in urban soils or waste sites, potentially providing a future resource. On a daily time scale, the urban heat island effect, whereby cities maintain temperatures higher than their rural surroundings, can also be recognized as a storage process in the energy component of urban metabolism. Strategies to mitigate urban heat islands may become increasingly important with global climate change. Thus, in addition to quantifying inputs and outputs, urban studies should also aim to characterize storage processes. This is especially important for developing cities that are consuming large material inputs to either improve or assimilate slum communities.

2.3. Conclusions

In 2030, 60.8% of the global population will be living in urban areas, with urban regions of the developing world absorbing most of the world's total population growth between 2000 and 2030 (UNESA, 2004). The global urban slum dweller population is forecasted to swell to 1.4 billion by 2020. UN-HABITAT's three strategies of slum upgrading, urban development, and regional development, along with their goals of creating a shared vision, developing effecting planning strategies, and preventing future human/environmental catastrophe in urban slums, can only be achieved with adequate information about the urban system and processes. UN-HABITAT efforts to achieve the UN's Millennium Development Goal's Target 11 often recognize the need to develop and/or adapt knowledge. These nine urban metabolism lessons have been assembled from previous urban metabolism studies to contribute to the knowledge in the global effort of improving and preventing urban slums. By increasing the knowledge of the urban system we hope to improve, humans will be more adequately prepared to address rising slum issues.

Better understanding of the urban ecosystem can also assist progress towards other Millennium Development Goals, especially as improvements are made to integrate urban metabolism methodology with socioeconomic models. An improvement to water and sanitation access is one such area of potential progress. The physical planning and management of cities and urban-rural interaction areas cannot be isolated from the environmental and socioeconomic feedbacks, especially as it relates to water (Niemczynowicz, 1996). Urban metabolism knowledge and lessons can help identify appropriate technologies that may assist in providing improved water and sanitation

access, which in turn has ramifications on local economy and environment. Ongoing work will determine if rainwater harvesting is one such tool for alleviating slum conditions by improving the sustainability of water and wastewater flows.

Smarter and sustainable economic development and city management can only facilitate efforts to decrease poverty, disease, inequality, etc. As more and more studies are made, greater material and energy efficiency will be possible with appropriate policy implementation. Urban centers must have the opportunity of becoming extremely efficient and allowing for the “sustainable” development of the human race. Meeting the United Nations Millennium Development Goals by 2015 will greatly depend on how the world community manages the urban situation, which will require innovative thinking in areas of food/water supply, sanitation, education, equality, and environmental sustainability. New management tools will be needed to head off the current slum crisis and looming catastrophe that is sure to happen if these cities continue to haphazardly grow and operate like tumors on the land.

Chapter 3 Stochastic Rainfall Modeling in West Africa: Parsimonious Approaches for Domestic Rainwater Harvesting Assessment^a

3.1. Introduction

3.1.1. Improved Water Access

Global commitment to universal improved water access has escalated over the last decade as policy makers and water professionals have sought to alleviate many of the public health and economic development problems associated with water scarcity. The United Nation's Millennium Development Goals (MDGs) related to water and sanitation access are on the agendas of many governments and NGOs, and the other MDGs related to poverty reduction, education, gender equality, health, and sustainable development all have direct ties to water-related indicators (WWAP, 2006). Half of the MDGs' 2015 target period is now past, and although some progress has been made, the world community needs increased mobilization toward these targets as well as toward future aims of water provision.

Several metrics have been proposed to define physical or economic water stress or scarcity. A freshwater per capita value of 1700 m³/year of total available water supply, accounting for all uses, is a common delineation of water stress (Falkenmark et al., 1989). Health impacts can also be incorporated into these metrics, as with the World Health Organization's (WHO) recommendation of 20 L/day to meet basic consumption and hygiene needs (Howard and Bartram, 2003). MDG Target 10 is focused on increasing improved water access (defined in Table 3-1). Figure 3-1 shows the current improved water access rates in Africa, which are the lowest of all continents. This figure may be an

a- Previously published in Journal of Hydrology (Cowden et al., 2008)

underestimation of the problem as aggregation can mask local and regional issues not reflected in national surveys (Vorosmarty et al., 2005).

Table 3-1: Improved Water Definitions (WHO/UNICEF, 2000)

Improved Water Supply	Not Improved Water Supply Technologies^a
Household connection	Unprotected well
Public standpipe	Unprotected spring
Borehole	Vendor-provided water
Protected dug well	Bottled water
Protected spring	Tanker truck-provided water
Rainwater collection	

a- Due to insufficient quality, quantity, or unreasonable price

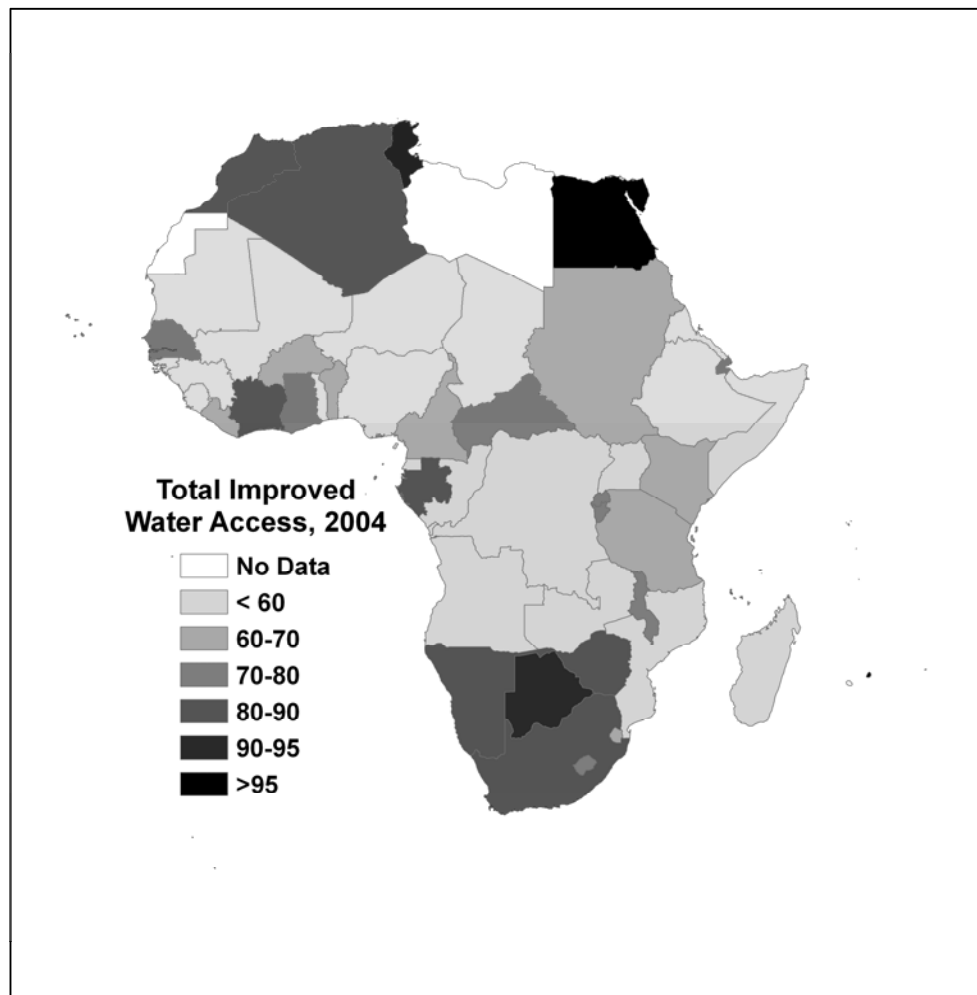


Figure 3-1: Improved Water Access Percent Coverage in Africa (Map created by author from data in UNEP, 2005)

An exploration of alternative methods of water provision, in place of typical large, central engineering solutions, should be a part of any developing nation's water plan. Domestic Rainwater Harvesting (DRWH) is practiced formally (e.g. permanent collection/storage systems) and informally (e.g. pots under roof edges) in various parts of the world. This technology has seen increasing popularity in developing countries due to better reliability, simplicity, versatility, use of local materials, time savings, and lower costs than some centralized treatment systems. It is also compatible to the conditions found in impoverished urban communities (Mihelcic et al., 2007; Thomas, 1998). This technology can also empower households in enhancing their own water supply, regardless of the availability and willingness of government infrastructure support and international economic aid (Cowden et al., 2006). Such is the case within urban slums, for which lack of adequate improved water is a defining characteristic. There are 199 million slum dwellers in sub-Saharan Africa (UN-HABITAT, 2006), and DRWH could offer a viable enhancement of water supply and associated improved health.

Several areas in sub-Saharan Africa are now developing DRWH programs, and many case studies exist on the application of the technology, including implementation in urban areas of the continent (Ntale et al., 2005; Thomas, 2005; Handia et al., 2002; Gumbo, 1998). Many DRWH assessments, however, use aggregated monthly precipitation data in the determination of water availability. This method is sufficient for very approximate analysis, or if storage volumes are sufficient to capture most of the monthly precipitation, making day-to-day rainfall occurrence less of a concern. However, households with little storage capacity (e.g. urban slums) are dependent on the

daily probability of precipitation if using a DRWH system. Daily precipitation data, therefore, are essential in assessing DRWH reliability for these systems.

3.1.2. Stochastic Weather Generators

Unfortunately, complete or long daily rainfall records are not readily available in many regions of sub-Saharan Africa. Many methods offer daily sequence construction from climate model-linked precipitation models or statistical disaggregation of monthly values, yet they are often too complicated (i.e. data intensive, high training requirements) or not readily available for use by water planners and NGOs in developing countries. “Off the shelf” stochastic weather generators, however, offer a solution by creating multiple, unbroken synthetic sequences of rainfall for use in hydrologic modeling and reliability assessment (Wilks and Wilby, 1999). The model parameters may also be interpolated to non-gauged sites, allowing for broad spatial assessment of DRWH systems (Semenov et al., 1998). Stochastic weather generators can also be used in climate change impact assessments via parameter adjustment by global climate model output (Semenov and Barrow, 1997; Wilby et al., 1998).

Two stochastic weather generator models, a 1st-order Markov model--used by WGEN (Richardson and Wright, 1984) and other freely available statistical software--and LARS-WG (Semenov and Barrow, 1997), are considered herein as appropriate, parsimonious options for water planners and non-governmental organizations (NGOs) in the developing world. The governing principles of both models have been developed over the past 30 to 40 years, and have been, along with their successors, used in studies and operations for various applications throughout the world (Lawless and Semenov, 2005; Neitsch et al., 2005). The 1st-order Markov model is a lag-one dependence model,

and LARS-WG is spell-length model. These models offer distinct advantages over more sophisticated, highly parameterized, or physical research models, including Internet availability of modeling software, small input data requirements, fast computations, and ease of use.

One weakness of these methods, however, is the lack of extensive application to tropical to semi-arid equatorial climates such as West Africa, which differ from the mid-latitude, temperate climates for which they were originally developed (Wilby et al., 2004). To date, only a handful of stochastic weather generators studies have been completed for West Africa, most using components of the WGEN model, with a few using the LARS-WG model (Schuol and Abbaspour, 2007; Jones and Thornton, 2000; Jackson, 1981; Jimoh and Webster, 1996, 1999; Garbutt et al., 1981). The models also have seen little if any application to DRWH, with no studies reported in rapidly urbanizing West Africa.

Accordingly, this paper will address the application of these stochastic weather generator models for several sites in West Africa. The models will then be used to assess the reliability of DRWH systems for meeting basic water needs in the region (i.e. ability to produce $\geq 20\text{L}$ per person per day) and to determine the impact this technology can have on water supply enhancement. The two stochastic weather generator models will be compared against each other as well as to a more complicated 2nd-order Markov model and a conditioned 1st-order Markov model to determine the suitability of these methods to DRWH assessment in West Africa. These comparisons will also allow investigation of benefits of using more complex research methods in developing water supply management systems that incorporate DRWH.

3.2. Methods

3.2.1. Data and Site Selection

This research will focus on the tropical to semi-arid regions of West Africa. The rainfall data used to construct the stochastic rainfall models were obtained from the U.S. National Climatic Data Center's (NCDC) Global Summary of Day data (NCDC, 2007). These data have been subjected to extensive quality control by NCDC to remove random errors associated with the reported observations and daily derivations. Multiple gauges for the West African region were selected based on minimum record lengths of twenty years (Figure 3-2), with most records ranging between 1973 and 2005. Although there is no standard minimum on record lengths for stochastic rainfall models, this record length assures adequate stochastic parameter estimation (Richardson, 2000; Soltani and Hoogenboom, 2003). Mean monthly rainfalls have strong seasonality patterns and range from bimodal distributions along the Guinea coasts to unimodal distributions farther inland toward the Sahel. The gauge threshold (i.e. instrumentation limit) for this data set is 0.01 inches or 0.254 mm, and this same threshold was used to distinguish a wet day from a dry day in the calculation of rainfall occurrence model parameters. Appendix A shows the location of gauges used in this study.

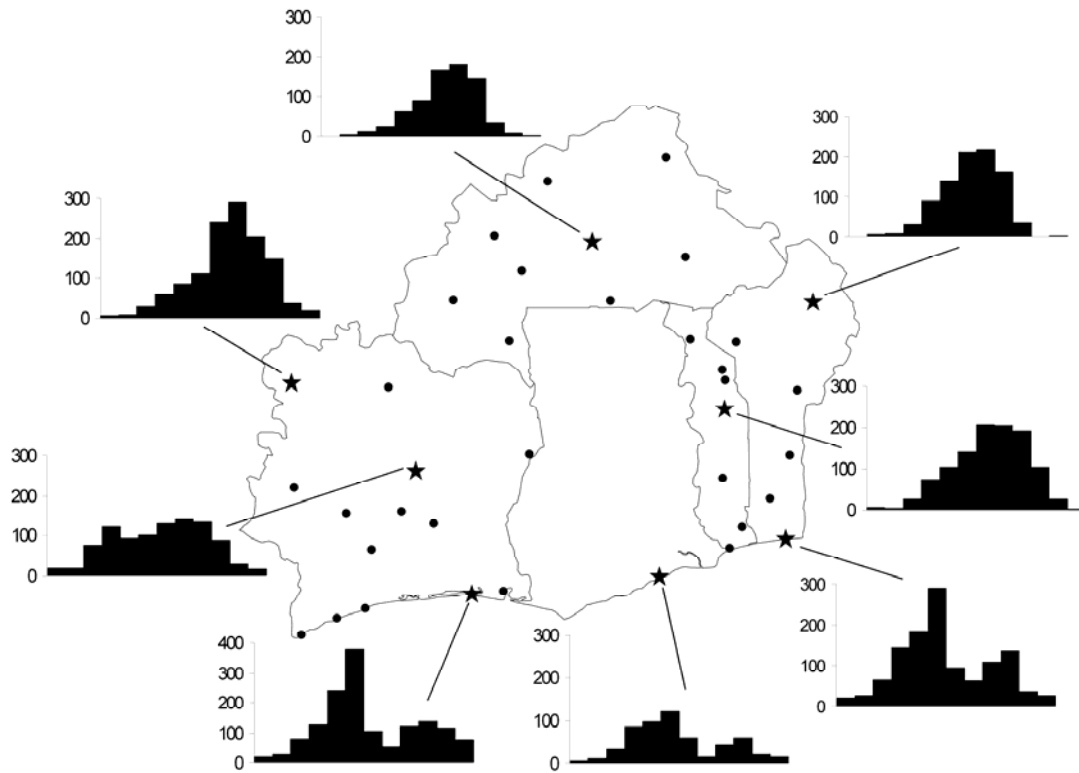


Figure 3-2: Precipitation gauges used in five countries of West Africa (Burkina Faso, Cote d'Ivoire, Ghana, Togo, Benin). Example rainfall distributions from selected gauges are shown as the monthly mean (mm).

3.2.2. Stochastic Rainfall Modeling

3.2.2.1. Markov Models

WGEN and its successors use a 1st-order Markov chain, corresponding to lag-1 transition probability dependency. A zero-order Markov chain, or unconditional occurrence model, and a 2nd-order Markov chain, or lag-2 model, were compared with the 1st-order model. Assuming a constant season length of one month, the maximum likelihood estimates of the transition probabilities were calculated from the observed proportional frequencies. State changes with missing days were ignored in this study. One hundred 30-year sequences of simulated precipitation occurrence were then

produced using the transition probabilities and random number sequences. Assumptions were made regarding the first state(s) of the sequence, based on the unconditional probabilities of each gauge for the given month.

3.2.2.2. Amount Model

Two amount distributions were used in this study, the 2-parameter gamma distribution,

$$f(x) = \frac{x^{\alpha-1} \exp(-x/\beta)}{\beta^\alpha \Gamma(\alpha)} \quad \text{for } x, \alpha, \beta > 0$$

and the mixed-exponential distribution (Wilks, 1999). 3-1

$$f(x) = (\alpha/\beta_1) \exp(-x/\beta_1) + \left(\frac{1-\alpha}{\beta_2} \right) \exp(-x/\beta_2) \quad \text{for } x > 0; 0 \leq \alpha \leq 1; 0 < \beta_1 < \beta_2 \quad 3-2$$

Maximum likelihood estimators were used for the shape (α) and scale (β) parameters of the gamma distribution and the mixing (α) and mean (β_1, β_2) parameters of the mixed exponential distribution. Random samples from these distributions produce the wet day amounts in the synthetic occurrence sequence.

3.2.2.3. Spell-Length Model

The spell-length model used in this study followed the precipitation component of the LARS-WG weather generator (Semenov and Barrow, 1997). This model samples from a semi-empirical distribution, or histogram, of the observed spell-lengths and precipitation values, rather than fitting a specified distribution to the data (Semenov et al., 1998). Alternating wet-dry sequences are produced by randomly selecting from the corresponding histogram's intervals, based on their relative frequencies, and then

selecting a value from the uniform distribution within the interval. LARS-WG software was used for these steps in producing the 30-year sequences.

3.2.2.4. *Conditioned Markov Model*

Several studies have shown the influence global sea-surface temperatures (SSTs) have on the rainfall variability of the West African region (Balas et al., 2007; Rowell, 2001). These SSTs may have direct impacts on rainfall processes, or indirect influences via teleconnections to mid-latitude Atlantic conditions, which then impact rainfall in the region. The 1st-order Markov model was conditioned on SSTs using the Oceanic Nino Index (ONI) (CPC, 2007). The rainfall gauge dataset was divided according to whether a month fell within and warm, neutral, or cold Pacific SST event, as defined by ONI. Transition probabilities and amount distributions were then calculated for each of the three states. Simulation proceeded by using the occurrence frequency of each ONI event to produce monthly sequences. The corresponding SWG parameters for each event were then used to complete the multiple 30-year sequences of daily precipitation.

3.2.3. **Model Comparison**

The Bayesian information criterion (BIC) was used in determining the optimum Markov chain order and amount model, operating on the premise of balancing the goodness of fit of a model with the model's complexity, as indicated by the degrees of freedom or number of independent parameters (Schwarz, 1978; Wilks, 1999). The BIC score is computed as

$$BIC(k) = -2L(\theta) + m \ln(n) \quad 3-3$$

where m equals the degrees of freedom or number of independent parameters, L equals the log-likelihood function, and n is the sample size.

All models were also compared using tests commonly found in the literature to examine several statistical properties of the time series, such as wet days per month, monthly amount totals, and wet/dry spell lengths. These tests include graphical comparisons, root mean square error (RMSE) (Mehrotra et al., 2006; Wilby et al., 1998), and the t-test and F-test for mean and variance analysis, respectively (Semenov et al., 1998). The latter two methods test the following null hypotheses, respectively:

$$(H_0 : \mu_{\text{observed}} = \mu_{\text{model}}; H_0 : \sigma_{\text{observed}}^2 = \sigma_{\text{model}}^2; \alpha = 0.05) \quad 3-4$$

Overdispersion, which is the under-representation of the observed variability by the models, was also calculated as (Wilks, 1999)

$$\text{Variance Overdispersion} = \left(\frac{\text{observed variance}}{\text{modeled variance}} - 1 \right) \times 100\% \quad 3-5$$

3.2.4. DRWH Reliability

One hundred 30-year sequences of synthetic rainfall for each model were produced for use in the DRWH assessment. The daily per capita DRWH yield is the product of per capita roof area, runoff coefficient, and daily rainfall. For the initial statistical comparison of the models, an assumed roof area of 6 m² per person is used. A runoff coefficient of 0.8 was used and is a common value in the DRWH literature (Preul, 1994). Monthly reliability of the DRWH system was calculated as follows.

$$\text{Reliability} = \frac{\# \text{ of days yield} \geq 20 \text{ L}}{\text{total \# of days}} \quad 3-6$$

A more thorough domestic rainwater harvesting assessment was then conducted in the study region using roof areas ranging from 2 to 10 m² and storage volumes ranging from 0 to 1000 L. The amount of water available for consumption was dependent on runoff

and the previous day's storage. Consumption was assumed to be up to 20 L/day per capita. Runoff exceeding storage capacity was assumed to be discarded.

3.3. Results

3.3.1. Markov Order

Markov order selection was determined for comparison with the LARS-WG and conditioned Markov model. Appendices B, C, and D contain the estimates of transition probabilities and LARS-WG parameters examined in this study. Figure 3-3 shows the number of gauges selected for each model order, as determined by the lowest BIC score. The zero-order model is the preferred Markov order for the majority of gauges for 9 out of 12 months, with the 1st-order model being preferred slightly for the remaining 3 months. The 2nd-order model is rarely preferred for any of the gauges, receiving only a few low BIC scores during the latter part of the wet season in the region. These BIC scores indicate that the higher order Markov models do not contribute enough skill to the rainfall parameter estimation to justify the increase in complexity.

The dominance of the zero-order model is less clear, however, when the relative BIC scores are examined. When the 1st- or 2nd-order model is not preferred by the BIC (i.e. the lowest score), the percent difference between that score and the minimum score is small. Median percent differences between the minimum BIC score and 1st-order BIC values are less than 3% for all months and gauges, and less than 4% for the 2nd-order model.

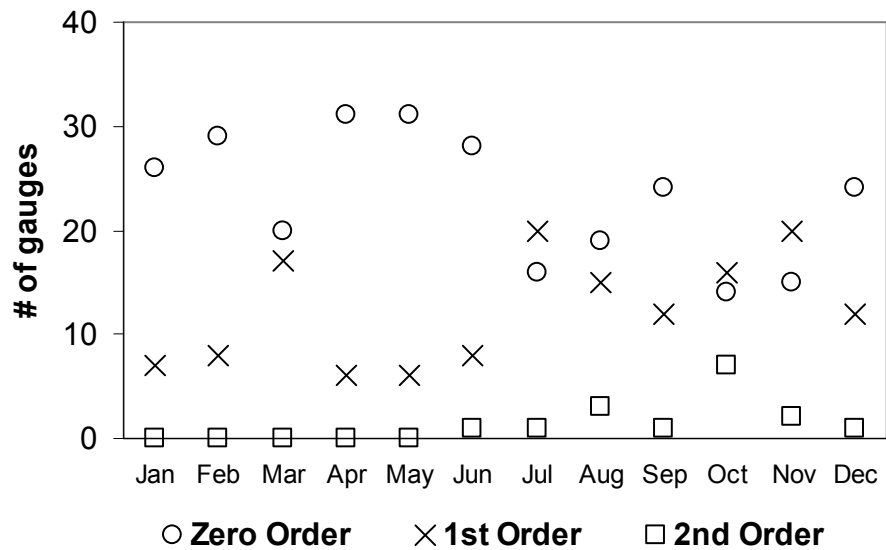


Figure 3-3: Bayesian Information Criterion (BIC) selection of Markov model order. The figure indicates, for each model order, the number of gauges with the lowest (preferred) BIC score.

Order selection is also determined by examining how well each of the Markov orders reproduces certain characteristics of the observed data. Figure 3-4 shows the standard deviation of the 1st-order Markov model plotted against the standard deviation of the observed data. The zero- and 2nd-order models show similar patterns. Overdispersion is evident for all three models, especially during the wetter months of Apr – Sep. Overdispersion is expected here as it is a common weakness of Markov rainfall occurrence models. Table 3-2 contains the results of various statistical tests conducted on the results of Figure 3-4. The 1st-order Markov model has the lowest level of overdispersion and the lowest RMSE for all three rainfall characteristics in Figure 3-4. The 1st-order Markov model also has the least rejections of the null hypothesis ($\alpha = 0.05$) of the observed and model variance being equal. These tests favor the 1st-order model across all months, in contrast to the BIC scores.

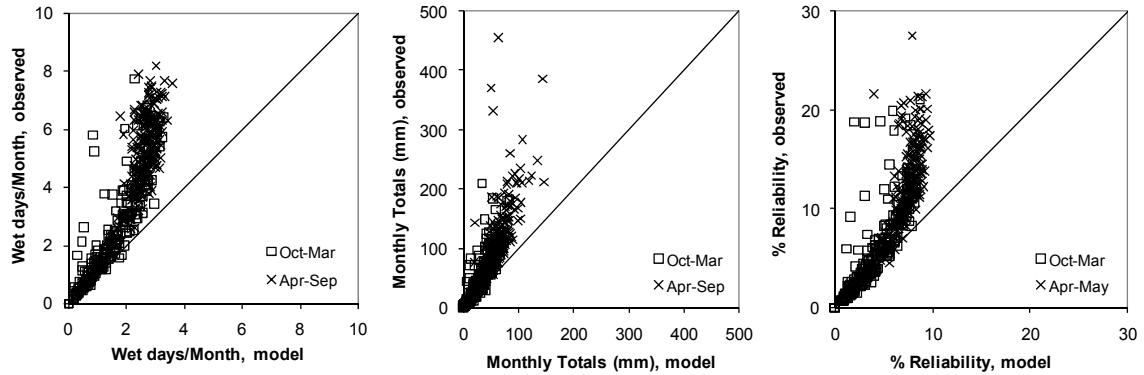


Figure 3-4: Standard Deviation of wet days per month, monthly totals (mm), and DRHW % Reliability (≥ 20 L/day per capita) for the 1st-order Markov model

Table 3-2: Rainfall characteristics statistical test results for the Markov models. Dispersion and RMSE values are averaged across all gauges and months. F-test values indicate the number of months (across all gauges and months) where there is insufficient evidence to reject HO.

	Zero	1st	2nd	Gamma	Mixed
Wet Days/Month					
dispersion	297	238	267	-	-
RMSE (std. dev.)	1.88	1.74	1.75	-	-
F-test	51	93	63	-	-
Monthly Amount					
dispersion	273	246	271	246	168
RMSE (std. dev.)	36.8	35.9	36.4	35.9	32.8
F-test	102	113	100	113	165
DRWH Reliability					
dispersion	211	182	209	182	210
RMSE (std. dev.)	3.64	3.49	3.53	3.49	3.65
F-test	124	139	128	139	123
Wet Spells					
RMSE (mean)	0.090	0.081	0.121	-	-
RMSE (std. dev.)	0.155	0.085	0.132	-	-
Dry Spells					
RMSE (mean)	1.64	1.94	2.25	-	-
RMSE (std. dev.)	5.77	6.50	7.01	-	-
Max Wet Spell					
RMSE	6.15	7.59	8.59	-	-
Max Dry Spell					
RMSE	59.0	62.7	66.9	-	-

Figure 3-5 illustrates the mean and standard deviation of wet and dry spells within the observed and model rainfall sequences. All three models reasonably reproduce the wet spell characteristic, with the zero-, 1st-, and 2nd-order Markov models having the RMSE values of 0.09, 0.08, and 0.12, respectively. None of the models are able to adequately reproduce the dry spell lengths or the maximum wet and dry spells, though the zero-order model has the lowest RMSE. All three Markov models overshoot these rainfall characteristics.

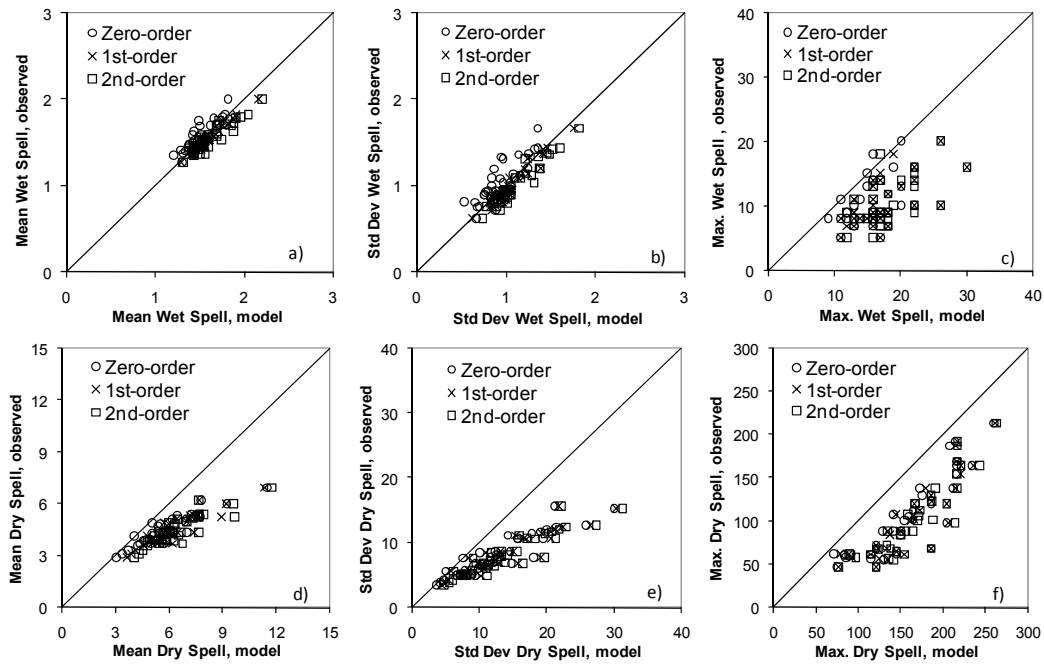


Figure 3-5: Mean, standard deviation, and maximum of a)-c) wet and d)-f) dry spells for zero-, 1st-, and 2nd-order Markov models.

3.3.2. Occurrence Sensitivity to Missing Data

Many meteorological records within the developing world suffer not only from sparse gauge networks and short record lengths, but also from incompleteness resulting from issues such as equipment downtime, funding problems, or operator absence/error.

Figure 3-6 illustrates the sensitivity of Markov model order choice to missing data. Two assumptions were made regarding missing days: either they have the same probability of being rainy, $P(w)$, as the rest of the record, or they were assumed to be dry, representing a conservative approach. BIC scores for the modified record filled in with wet or dry days behave similar to the original record, with a slightly higher preference for the zero-order model. Filling in the missing days with all dry days, however, significantly reduces the BIC preference for the zero-order model, especially during the wetter months. This is due to the mixing of more and longer dry spells with the multiple wet spells during this time. Models capable of representing this autocorrelation without large increases in parameters would be preferred by the BIC. The $P(w)$ -filled data set would have a more random scattering of wet and dry days and hence less autocorrelation.

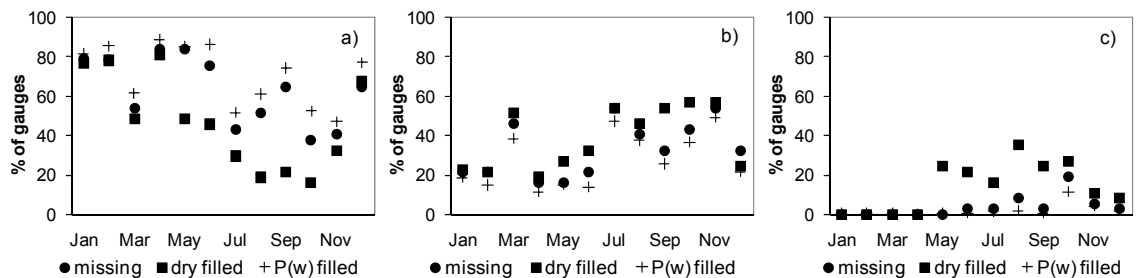


Figure 3-6: Sensitivity of BIC selection of Markov model order to missing days within the observations. The Figure indicates the % of gauges with the lowest (preferred) BIC score for a) a zero-order Markov model, b) a 1st-order Markov model, and c) a 2nd-order Markov model.

Rainfall characteristics can also be sensitive to missing data. Gauges with small percentages of missing data have small differences between the modified data sets, with an obvious but often slight drop in wet days/month in the dry-filled data set. Gauges with large amounts of missing data, of course, may have significant drops in wet days per month if missing days are filled with all dry days. Filling missing days using the wet day

probabilities intuitively results in little change in wet days per month as the ratio of wet days to total days of data remains relatively the same.

3.3.3. Amount Model

BIC scores for the amount model overwhelmingly favor the three-parameter mixed exponential distribution over the two-parameter gamma distribution by 309 to 123 for all gauges and months. The reverse is true only during the drier months of the year, where few observations favor the gamma distribution, though not by much. Unlike the occurrence BIC results, the difference between the BIC scores for each model is often high. For comparison between rainfall statistics, the 1st-order Markov chain occurrence model was used to ensure that the variability associated with the occurrence process was equal for each amount model.

Both models reproduce the mean monthly totals but again underestimate the observed variability (Table 3-2). A large portion of this overdispersion is due to the occurrence model, but some of the variability is accounted for by the amount models. The mixed exponential distribution outperforms the gamma distribution for monthly totals, whereas the gamma distribution is able to better reproduce the observed variability of DRWH reliability (Table 3-2). The gamma distribution, however, overestimates the mean DRWH reliability by 19.6% (not shown), which might lead to a more favorable outlook of DRWH harvesting than is actually warranted by the historical record. Appendices E, F, and G contain the estimated parameters for the gamma and mixed exponential rainfall amount distributions.

3.3.4. Model Comparison

Figure 3-7 shows the mean and standard deviation of the models plotted against the observed data for DRWH reliability. Similar patterns are seen in the monthly amount totals, both of which result from the underlying wet days per month behavior. Both Markov models adequately reproduce the means of the rainfall characteristics, with the 1st-order Markov model having the lowest averaged RMSE (mean). The LARS-WG overestimates the observed wet days per month, especially in the drier months of Dec-Jan. This overestimation is carried through into monthly totals and DRWH reliability. Overdispersion is also evident for these three models, especially during the wetter months of Apr – Sep; however, the LARS-WG model exhibits underdispersion during the dry season, resulting in higher wet day variability than the historical record (see Figure 3-8). Figure 3-8 illustrates that during the wetter months, the conditioned Markov model has the least overdispersion, whereas the unconditioned 1st-order Markov model has the lowest RMSE of the mean.

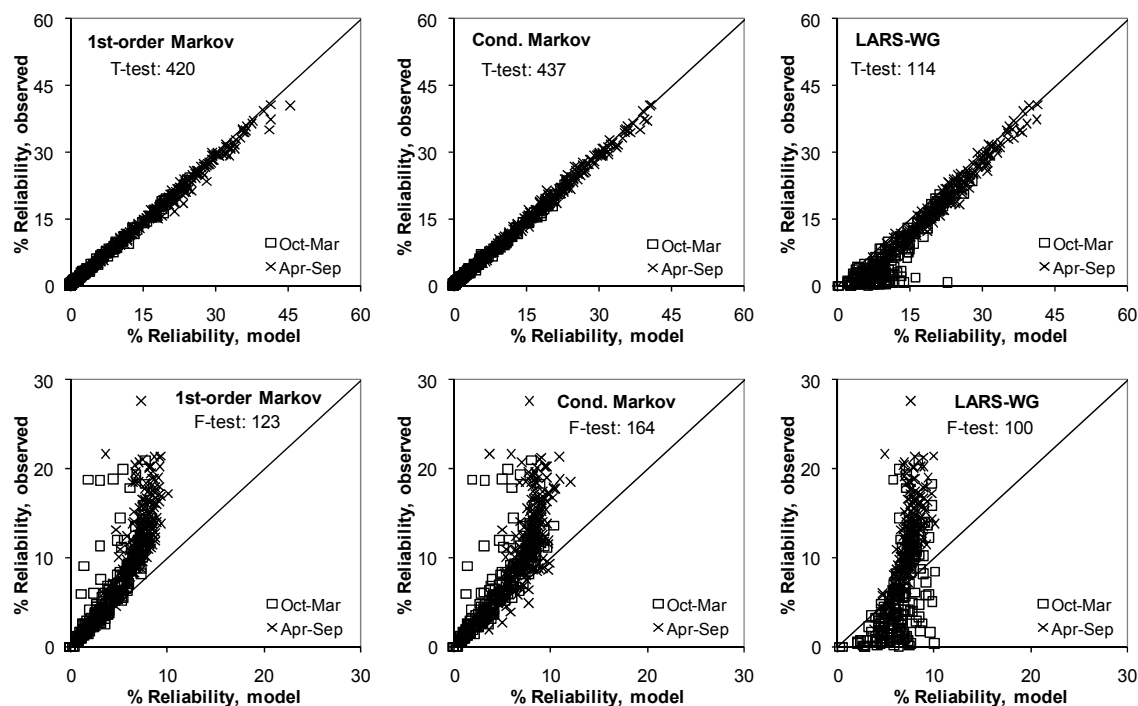


Figure 3-7: Mean and standard deviation of % reliability. T-test and F-test values indicate the number of months (across all gauges and months) where there is insufficient evidence to reject HO.

The RMSE of the standard deviation is relatively the same through the year for all three models, except during the dry season when LARS-WG overestimates the observations. The conditioned Markov has the lowest averaged RMSE (std. dev.) for all three rainfall characteristics. According to the t- and F-tests, the conditioned Markov model performs the best out of the three, with the unconditioned 1st-order Markov model outperforming the LARS-WG model in simulating the application characteristic of DRWH reliability (See Figure 3-7).

The reverse is true, however, when the spell lengths are considered (see Figure 3-9 and Table 3-3). Here the LARS-WG far outperforms the Markov models, able to reproduce both the means and standard deviations of wet and dry spells, whereas the Markov models were incapable of matching the dry spell characteristics. This is a

strength of the LARS-WG model, as it samples directly from the observed spell lengths when constructing synthetic weather sequences.

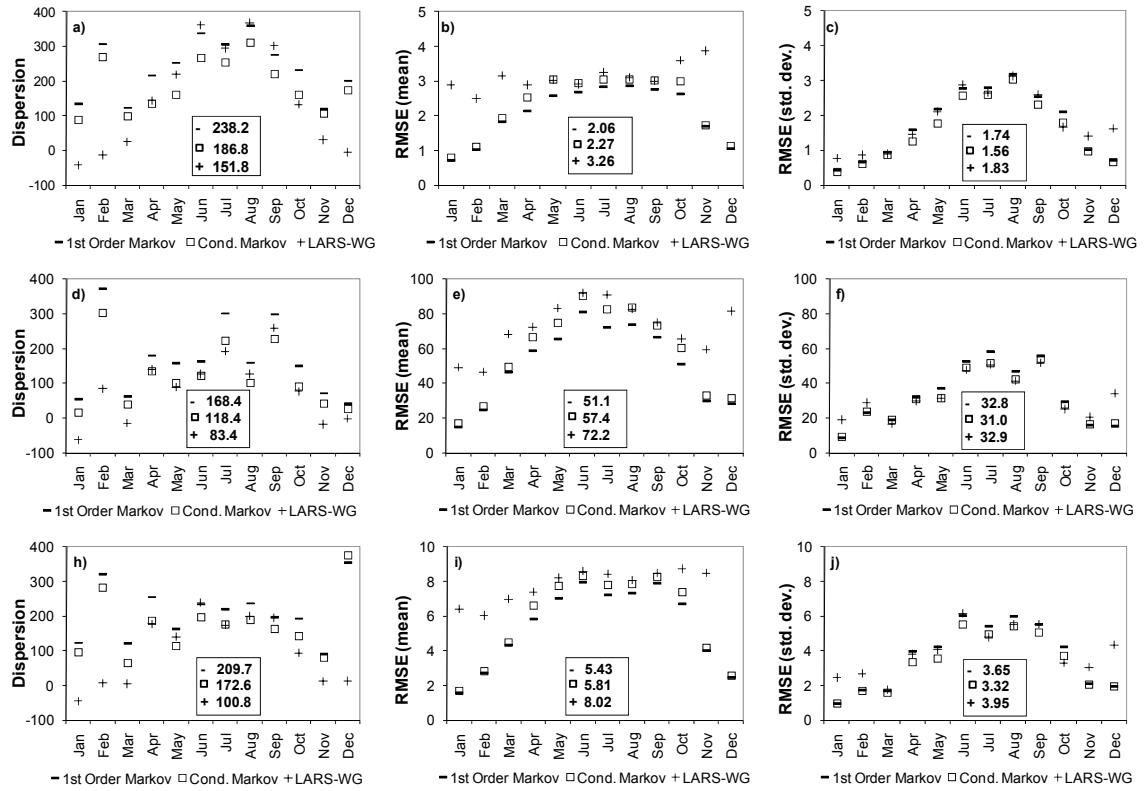


Figure 3-8: Monthly dispersion and RMSE values for a)-c) wet days/month, d)-f) month totals (mm), and h)-j) DRWH % reliability. Boxed values are dispersion and RMSE values averaged across all gauges and months.

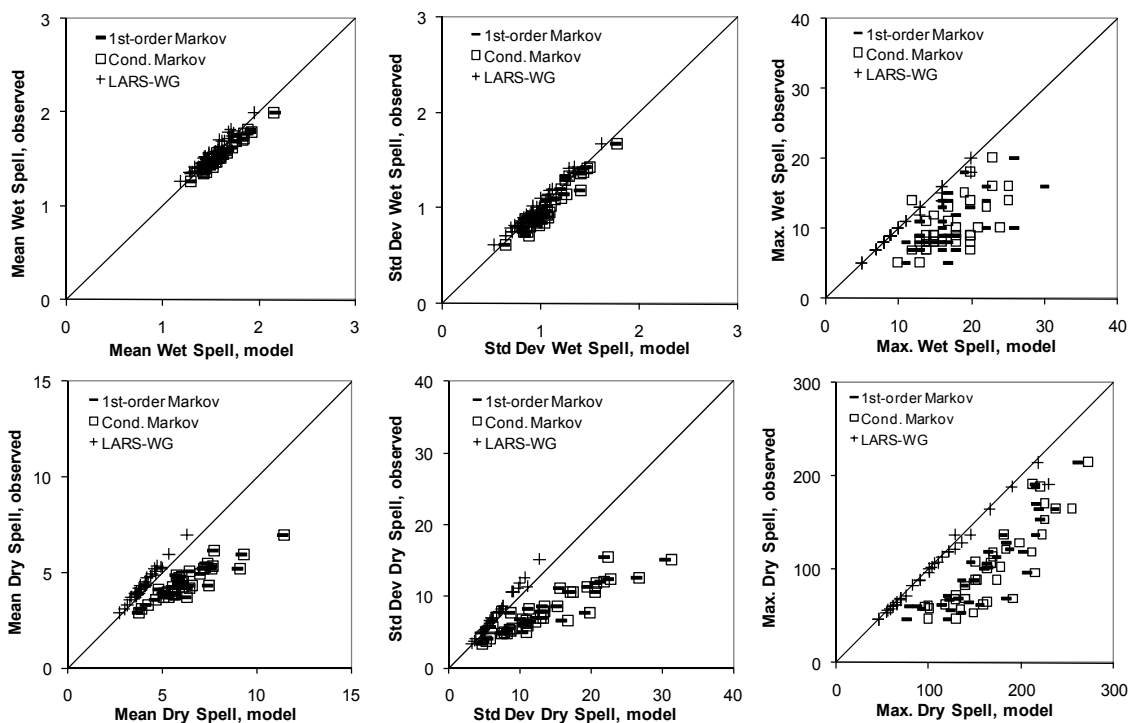


Figure 3-9: Mean, standard deviation, and maximum of wet and dry spells (days)

Table 3-3: Spell length characteristics statistical test results for the stochastic weather generators. RMSE values are averaged across all gauges and months.

	1st Order	Conditioned	LARS-WG
Wet Spells			
<i>RMSE (mean)</i>	0.081	0.080	0.056
<i>RMSE (std. dev.)</i>	0.085	0.103	0.056
Dry Spells			
<i>RMSE (mean)</i>	1.94	2.02	0.293
<i>RMSE (std. dev.)</i>	6.50	6.85	0.955
Max Wet Spell			
<i>RMSE</i>	7.59	7.84	0.615
Max Dry Spell			
<i>RMSE</i>	62.7	71.0	7.15

3.3.5. DRWH Assessment

DRWH systems are often designed with an optimum storage size and catchment area, and the same considerations are made for DRWH systems in urban West Africa. Design alternatives, however, are somewhat constrained by the space available in

developing world cities, especially in slum communities. For common per capita area and storage values in urban slums, the marginal benefits of increasing storage volume are much higher than increasing roof area when initial storage volumes are low, regardless of the roof size. However, as storage volumes increase, this gap decreases to a point where roof area increases must be considered as an alternative to storage augmentation.

Figure 3-10 and Figure 3-11 show multi-model DRWH reliability ($\geq 20\text{L/day/capita}$) assessments for two gauges in West Africa. Both figures show results for varying roof and storage values, with Figure 3-10 showing the results of the LARS-WG model and 1st-order Markov model, and Figure 3-11 showing the results of the LARS-WG model and the Conditioned Markov model. Households with little per capita storage capacity or roof area can only expect DRWH to partially enhance improved water supply for certain months of the year. Households with larger storage volumes and roof areas can enjoy a significant water supply enhancement, but are still unable to rely solely upon DRWH systems to meet demands.

Finally, Figure 3-12 allows water planners in government or NGOs to determine an optimum storage volume for varying roof sizes. Storage sizes were incrementally increased (in steps of 40 L) and DRWH reliability estimated. The reliability benefits eventually diminish with increasing storage, indicating the reliability is also limited by roof area or rainfall. For small per capita roof areas, one 200 L drum would be optimum for most regions, whereas 2-5 drums would be needed to take advantage of increasing per capita roof size up to 10 m^2 . Appendices H, I, and J contain the reliability results for all models and gauges.

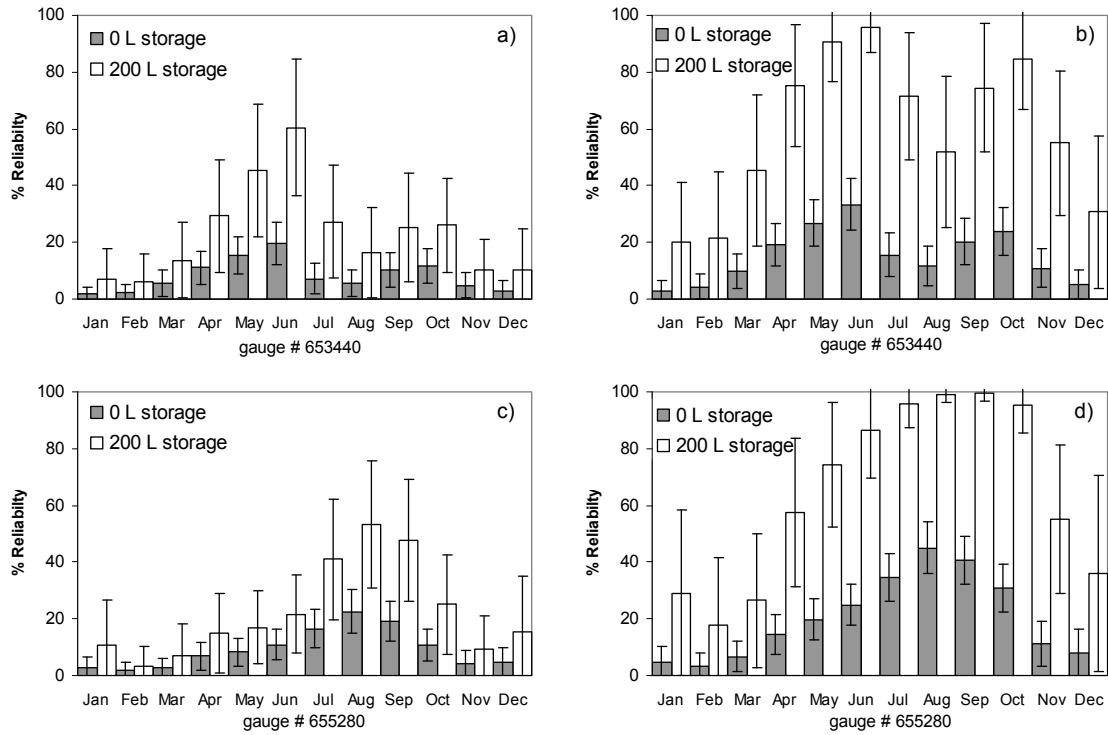


Figure 3-10: Multi-model DRWH reliability for a 2 m² per capita roof area for gauges a) 653440 and c) 655280, and for a 10 m² per capita roof area for gauges b) 653440 and d) 655280. Models used are LARS-WG and 1st order Markov.

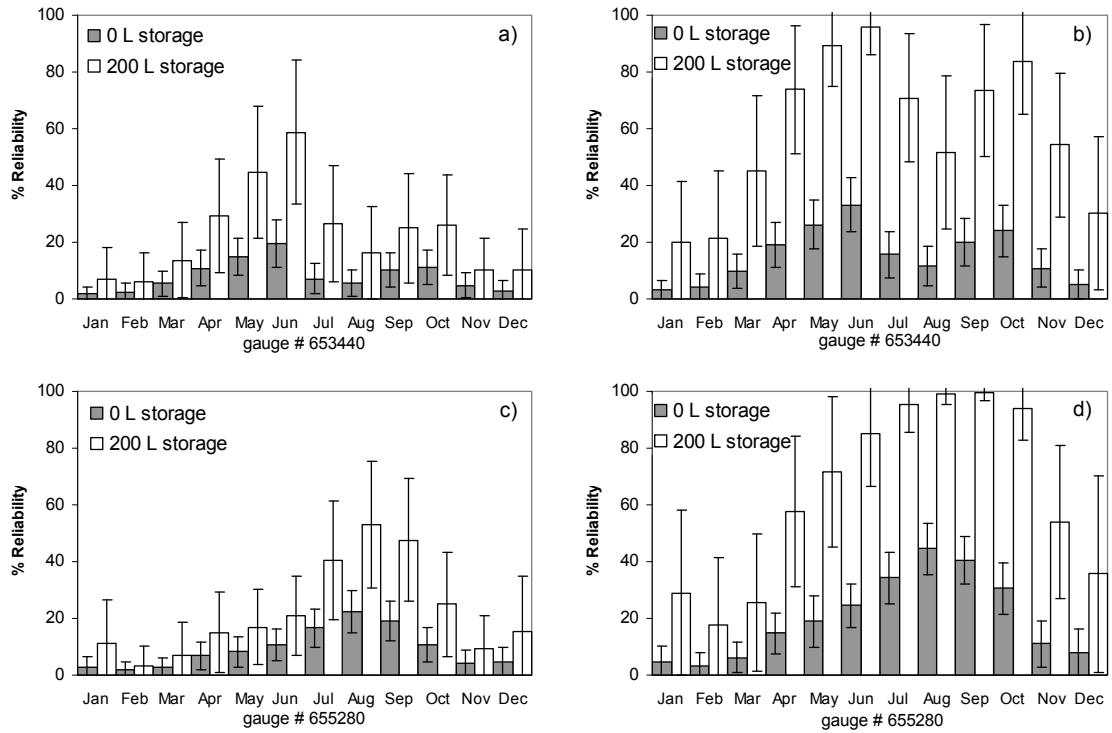


Figure 3-11: Multi-model DRWH reliability for a 2 m² per capita roof area for gauges a) 653440 and c) 655280, and for a 10 m² per capita roof area for gauges b) 653440 and d) 655280. Models used are LARS-WG and Conditioned Markov.

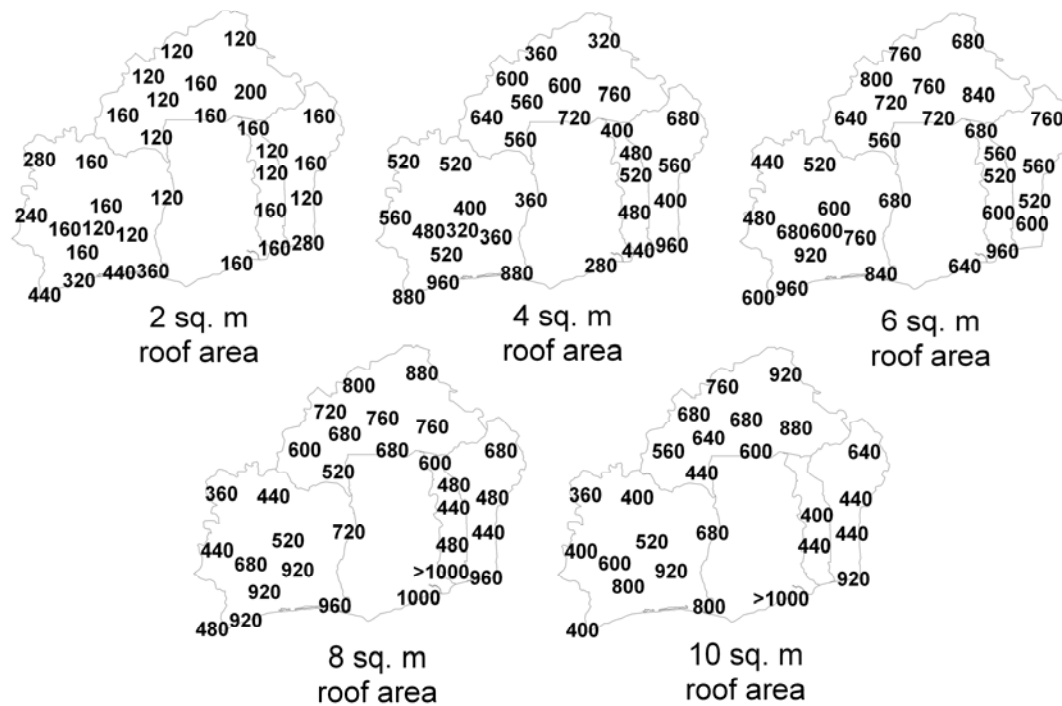


Figure 3- 12: Optimum per capita storage size (L) for the wetter months of Apr-Oct.

Optimum storage size for each month is determined by either a) further increase in storage size (40 L increments) results in < 1% change in reliability, or b) the storage size results in > 95% reliability. The maximum of monthly values for each gauge is shown.

3.4. Discussion

The BIC scores indicate the zero-order Markov model to be the preferable model for this region. This is intuitive for the very dry months of Dec-Feb, as there are very few wet days recorded during this time and therefore little autocorrelation associated with the time series. Wet days are rare, and random events are easily represented by marginal wet-day probabilities. Selection for the remainder of the year, however, is less clear, as the zero-order Markov model has only a slight advantage over the 1st-order model. Probability dependence on previous day conditions becomes more important as more wet days occur during the rise, peak, and fall of the uni- or bimodal rainy seasons.

Sole reliance upon BIC scores for model determination, however, is not recommended. Several studies have noted the overdispersion tendencies of Markov models, and this known behavior is seen in this study (Katz and Parlange, 1998). Relying solely upon the BIC, especially when the score difference between orders is small, risks choosing a model that is less capable of capturing the variability of rainfall characteristics directly associated with the model application. Such is the case with DRWH reliability. The 1st-order model clearly outperforms the zero-order model in reproducing the variability of the rainfall characteristics, including DRWH reliability, examined in this study.

Some study locations have seen greater variability reproduced by the 2nd-order model than by the 1st-order model (Katz and Parlange, 1998); however this is not the case here. Perhaps the large number of missing days prevented the accurate estimation of 2nd-order parameters. A few of the 2-lag transition probabilities for some of the gauges were very small or zero due to missing days, thereby affecting the accurate representation of the 2-lag autocorrelation. These missing observations are also responsible for the overestimation of spell length variability and maximums in the Markov models, as they interrupt spell lengths in the historical record.

The larger percentage of missing days in developing world records is yet another reason to be wary of BIC application as it is sensitive to the method of filling in these observations. Filling in missing days can also have detrimental effects on the model application. If a record's missing days are filled with dry days, it will give a conservative estimate of DRWH reliability. However, storage volume optimization will become

highly uncertain, as larger storage volumes may be warranted than that recommended using dry-filled data.

The wet days per month are especially critical to small-storage DRWH systems dependent on frequent occurrence of rainfall. For this reason a 1st-order Markov model is recommended for DRWH assessment in this West African region. This conclusion is amenable to the availability of the “off the shelf” software that utilizes a 1st-order Markov chain. A mixture model could also be used, with a zero-order model for the dry season, in accordance to the BIC results; however, parsimony dictates a consistent method for DRWH assessment in developing countries.

Comparing the amount models, the mixed exponential distribution clearly outperforms the gamma distribution in BIC scores and in reproducing the mean and variance of the monthly totals. It also better matches the mean DRWH reliability but not the variance, though both distributions exhibit significant overdispersion. Although the gamma distribution matches this rainfall characteristic’s variability better than the mixed exponential distribution, the mean reliability resulting from the gamma model would create a false sense of security in terms of DRWH system reliance as it overestimates the true mean reliability. Previous studies have also indicated the mixed exponential distribution’s superior ability to reproduce the larger storm intensities, which the gamma model may miss entirely (Wilks, 1999). This is also evident in this study as the mixed exponential distribution better matches the observed monthly total variability. For DRWH studies involving large storage systems, capturing these large storms and accurately representing monthly amount totals is essential. The mixed exponential distribution is therefore recommended for this region and application.

Neither the LARS-WG nor the unconditioned 1st-order Markov model seems to have a substantial advantage over the other during the wetter months of the year. Both can adequately reproduce rainfall characteristic means, and both suffer from the overdispersion common to stochastic weather generators. However, the LARS-WG cannot be recommended for drier months as it overestimates both the mean and the variance wet days during those months. This is due to sampling spell lengths interrupted by missing days. LARS-WG samples from the wet spell lengths after a dry spell, and does not insert missing days in the synthetic record. This results in the overestimation of wet days in the dry months. The conditioned Markov model behaves as expected and better matches the interannual variability of all the rainfall characteristics. This is, of course, due to its inclusion of a large-scale interannual model component.

A completely different conclusion is reached, however, if the DRWH application is fully thought out. In terms of this study, where little to no storage is considered, then the Markov models are of use as they adequately reproduce mean monthly values (e.g. when rainfall exceeds a threshold to allow for > 20 L collection). As storage volumes increase, however, and households in the developing world attempt to correctly size their tanks for perhaps larger consumptive demands, the realistic representation of spell lengths becomes more important. The storage volume available at the beginning of each day is dependent on the lengths of dry spells between storms. The LARS-WG model has a clear advantage in that it almost perfectly matches the observed spell length characteristics.

For these reasons a multi-model approach is used in assessing the capabilities of DRWH systems in providing improved water supply reliability. The variability of the

assessments quantifies the reliability ranges produced by the models. It is clear that DRHW systems can provide improved water supplies through much of the year, although alternative sources must be available due to the aforementioned variability. Some months may see longer dry spells than others, and limited resources (space, funding) may preclude large enough storage and catchment areas to provide water through the dry season. Future work will include a more complete assessment over a range of catchment areas, as well as storage size optimization incorporating direct costs and health impacts. In accessing health impacts, additional consumption levels, such as 50/L and 100/L per day, will also be investigated. These same parsimonious models may also be used in general circulation downscaling studies to determine how DRWH system reliability could be impacted by various global climate change scenarios. Although only two gauges are represented here, these freely available models are easily applicable to gauges in other developing regions where cost, training, or data limitations may prohibit the use of more complicated methods.

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Chapter 4 Climate Change Impact Assessment on Domestic Rainwater Harvesting in West Africa

4.1. Introduction

Domestic rainwater harvesting (DRWH) consists of the conveyance of precipitation falling onto an impervious area (e.g. rooftop) into a storage container. This technology has been utilized for centuries to supply water at a household and community level for purposes such as drinking, cooking, washing, and laundry. DRWH continues to be practiced in several areas of the world, from wet regions such as Thailand, India, and parts of Africa, to arid regions such Australia, the southwestern U.S., and the Middle East. People in regions with limited water supplies (e.g. deserts, small islands) are especially adept at capturing infrequent, large storms and storing the water for extended periods of time.

Rainwater harvesting has been practiced in sub-Saharan Africa for centuries, especially by subsistence farmers seeking water for crops. Several studies have looked at the utility of DRWH in Africa, examining variables such as rainfall, roof area, and demand, and have found many regions of the continent suitable for the technology (Cowden et al., 2008; Thomas, 2005, 1998; Ntale et al., 2005). DRWH is now gaining popularity in several regions of the continent and has become a standard tool and program emphasis for several water resources non-governmental organizations (NGOs) and governmental agencies, especially in Eastern and Southern African countries.

Two intertwined environmental and social conditions exist in West Africa that make DRWH an appropriate technology for water provision. Water availability and water quality are not consistently high in several regions of West Africa, especially in the

Sahelian region. Coupling this situation with institutional failings has resulted in low improved water and sanitation coverage, as was previously shown in Chapter 1 with regards to improved water and sanitation coverage in Africa (Figure 1-3 and Figure 1-4). Urbanization also strains local resources and institutional capacity. West African urbanization rates are the highest on the continent and among the highest in the world. In fact, by 2050, approximately 420 million people will be living in urban areas in West Africa, compared to roughly 130 million in 2008 (UNPD, 2008). This rapid urbanization creates large, informal settlements, or slums, that are typically not serviced by local water and sanitation agencies.

Future climate change has potential to exacerbate the water and urbanization problems of West Africa. Rising sea levels and salt water intrusion into heavily used aquifers could displace a high proportion of the population inland, creating an ecological refugee crisis. Changing precipitation patterns can also add uncertainty regarding the planning and use of surface and groundwater resources. The United Nations Millennium Development Goals (MDG) Target 10 seeks to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. Climate change may hamper MDG efforts as populations and water resources availability shift both spatially and temporally.

DRWH, however, has been recognized as a means of achieving the MDG target in spite of climatic variability and uncertainty (UNEP, 2005). DRWH has also been an adaptation strategy for civilizations faced with abrupt climate fluctuations (Pandey et al., 2003). DRWH can, in effect, mitigate climate change impacts on displaced or slum communities faced with decreasing improved water access.

The climate of West Africa ranges from the humid tropics in the South to the semi-arid Sahelian region to the North. Rainfall is relatively abundant in many areas, especially along the coasts (Figure 4-1). The Sahelian region, the boundary between the Sahara desert and the more humid coastal and interior regions, is more arid and therefore more susceptible to unexpected rainfall variability. This region experienced major drought periods in the early 1970's and 1980's, with general drought conditions existing from the late 1960's into the 1990's (Le Barbe et al., 2002).

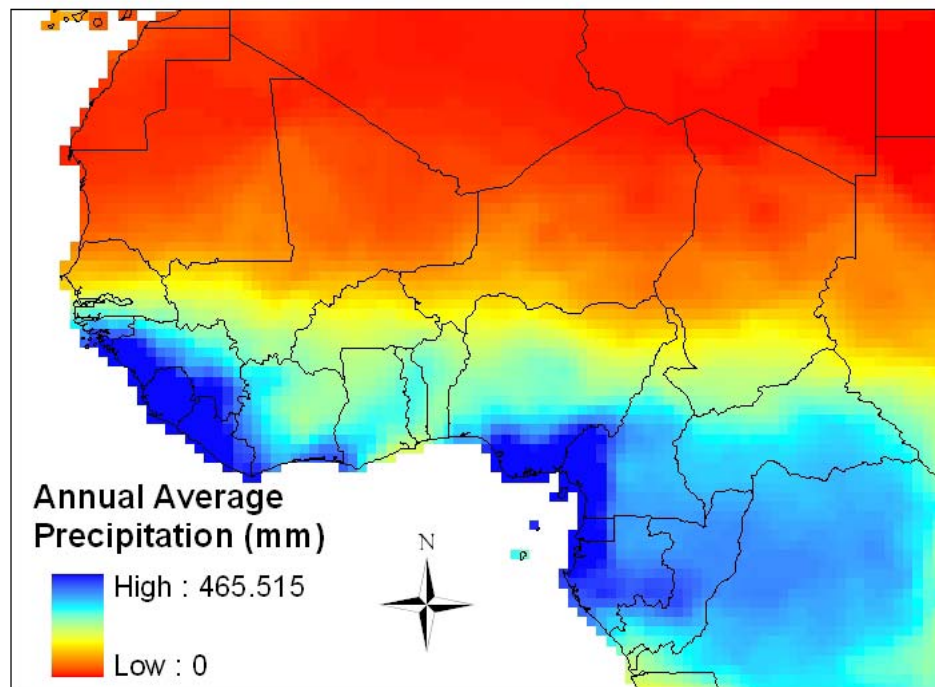


Figure 4-1. Annual Precipitation Patterns West Africa (Map created by author from data in VASCLimO, 2005)

Much of the region experiences an annual wet and dry oscillation, associated with movement of the Inter-tropical Convergence Zone (ITCZ). The ITCZ is the boundary in which the trade winds of the Northern and Southern hemispheres meet, creating a band of low pressure and associated thunderstorms around the equator. The arrival of these

systems creates monsoon conditions during the wet season for much of the tropics (Sultan and Janicot, 2003). Rainfall patterns in the West African region have been strongly correlated to sea surface temperatures. Temperature variations in the Gulf of Guinea and the tropical Atlantic, and the associated atmospheric responses, have been shown to explain historical changes in wet and dry precipitation patterns in both the Sahel and Guinea Coast (Balas et al., 2007; Giannini et al., 2003; Hoerling et al., 2006).

Ocean-atmospheric relationships can be captured in GCM simulations; however, the successful representation of West African precipitation has eluded many climate models, especially the dipolar rainfall variations and the annual monsoonal season (Christensen et al., 2007). The GCM failings in representing African rainfall stem from the inability to reproduce precipitation mechanisms, such as the hydrological cycle or orographic effect, or limitations in simulating teleconnections or feedback mechanisms (Boko et al., 2007). IPCC AR4 predictions for the West African region vary widely, with some predicting substantial drying and others progressive wetting (Boko et al., 2007). Cook and Vizzy (2006) examined several GCM simulations over Africa and found the GFDL-CM2.0, MIROC3.2(medres), and MRI-CGCM2.3.2 models to reasonably simulate twentieth-century climate, though no single GCM had strengths in simulating all precipitation characteristics.

GCMs are also not currently able to provide adequate weather variable outputs at the spatial or temporal scales of many hydrological systems, including DRWH, making direct GCM climate change impact studies vague at best. Though computation advances enable finer spatial models, including regional climate models, the need to statistically downscale GCM output to local areas of concern still exists, especially in data and

resource poor regions such as Africa. Statistical downscaling (SD) methods define a quantitative relationship between large-scale atmospheric predictors and local surface variables or predictands (Wilby et al., 2004). Many SD studies use precipitation for the predictand as this is the most important variable in agriculture and hydrologic studies. Commonly used predictors include sea level pressure fields and temperatures, geopotential heights and thickness, vorticity, and relative humidity (IPCC, 2001).

The general form of the predictor-predictand relationship is

$$R_t = F(X_T) \quad \text{for } T \leq t \quad 4-1$$

where R_t is the predictand at time t , F is the method to quantify the relationship, and X_t is the predictor set of current or past atmospheric variables (Charles et al., 2004). The IPCC has identified three key assumptions of SD methods, each being fundamental to the validity of statistical downscaling (IPCC, 2001; Wilby et al, 2004, Charles et al., 2004). The first is that the predictors are relevant to the predictand and can be realistically modeled by the GCM. This balance between relevance and representation is an important skill of any SD study. The second assumption is one of stationarity, where the quantitative relationship or transfer function between the predictor and predictand does not change in future altered climates. This is impossible to verify because future observations do not exist, but it can be validated using a separate observation set with a different climate than the fitting record set (Charles et al., 2004). Calibration and validation using past and future regional climate model (RCM) data sets is also a possibility (IPCC, 2001). Along with this assumption is the caveat against using future predictor values outside the climatology used to calibrate the transfer function, as this will invalidate the model (Wilby et al., 2004).

The third assumption is that the chosen predictors fully represent the climate change signal. Predictors that are not affected by model forcings and do not vary with forecasted climate change do little to translate this change to local predictands. On the other hand, if predictors that are very representative of climate change signals are left out of the model, unrealistic results may occur. Predictor selection methods must be chosen so as not to exclude these potentially important large-scale variables, and multiple predictor sets are encouraged in SD studies (Wilby et al., 2004).

The choice of predictor(s) is perhaps the most important step in statistical downscaling, as the validity of the aforementioned assumptions rest upon a sensible selection. This selection process can be difficult in that any one predictor may have low explanatory power, and this power may vary in time or space (Wilby et al., 2004). The emergence of climate reanalysis data sets has made a variety of predictor values available for selection, but these may be limited to the GCM data output that will be used in the climate change scenario assessment (Wilby et al., 2004).

Several correlation and selection methods have been used to determine an adequate set of predictors for downscaling models, including partial correlation analysis, step-wise regression, and information criteria (Charles, et al., 2004; IPCC, 2001). Many earlier studies have focused on atmospheric circulation and pressure variables, but recent investigations have revealed the importance of humidity predictors in rainfall downscaling. IPCC guidelines ultimately recommend predictor variables to be strongly correlated with the predictand, make physical sense, realistically characterized by the GCM, able to represent interannual variability, and reflective of the climate change signal

(Wilby et. al, 2004). Whether or not any given predictor meets all these recommendations depends on the site and quality of data available.

Statistical downscaling models can be grouped into three broad categories, namely regression models, weather classification schemes, and weather generators.

4.1.1. Regression Models

After determining the correlation between predictors and predictand, a simple choice of relating them together would be identifying a transfer function:

$$R_t = F_Y (X_T; \theta) \quad \text{for } T \leq t \quad 4-2$$

where θ is the parameter set and F_Y is the linear or nonlinear regression function (Charles et al., 2004). Several regression methods have been used, including simple and multivariate regression (Kidson and Thompson, 1998; Murphy, 1999; Sailor and Li, 1999; Wilby and Wigley, 2000;), singular value decomposition (von Storch and Zwiers, 1999), canonical correlation analysis (Karl et al., 1990; Wigley et al, 1990; von Storch et al., 1993; Busuioc et al., 2001), artificial neural networks (Hewitson and Crane, 1996; Crane and Hewitson, 1998; Trigo and Palutikof, 1999; Schoof and Pryor, 2001; Tatli et al., 2004), and spatial interpolation methods (Brandsma and Buishand, 1997; Buishand and Brandsma, 1999; Biau et al., 1999; Wood et al., 2004). Hybrid regression models have also been developed that add a stochastic component to inflate certain desired predictand characteristics that may be underestimated by regression alone.

The strengths of the regression models include their ability to consider a wide range of predictor values, with many techniques using readily available software (Wilby et al, 2004). Weaknesses of the regression methods include the assumptions of linearity and normality in certain cases and an inability to reproduce observed variances in the

predictand, especially for daily precipitation (von Storch, 1999; Wilby et al, 2004). This weakness in variance reproduction can be strengthened by bilinear linking of global circulation and predictand variable covariances (Burger, 1996) or by adding “noise” using stochastic processes (Charles et al., 1999; Wilby et al, 2003).

4.1.2. Weather Classification

Weather classification schemes or weather typing uses synoptic similarity to classify or group days into a finite number of discrete weather types or “states”:

$$\begin{aligned} R_t &= F_R(S_t) \\ S_t &= F_S(X_T) \quad \text{for } T \leq t \end{aligned} \tag{4-3}$$

where S_t is the weather state at time t , F_S is the weather state definition method, and F_R relates the weather state to the predictand (Charles et al., 2004). Both objective and subjective methods are used to define the weather states. Subjective methods were developed first and typically involved an “expert” classification of weather types for a specific region (Lamb, 1972; Bardossy and Caspary, 1990; Hay et al., 1991; Jones et al, 1993). The most common objective method is cluster analysis of atmospheric fields (Corte-Real et al., 1999; Huth, 2000; Kidson, 2000; Hewitson and Crane, 2002), with several other statistical methods also being used for state identification (Wilby and Wigly, 1997). Analog methods, which match current or predicted weather states to historical states, require long observation records to adequately capture the variance. Still, analog methods have compared favorably to more complex methods (Martin et al., 1997; Zorita and von Storch, 1999; Timbal and McAvaney, 2001).

Once the weather states are determined, F_R must be determined. This involves assigning predictand values or probabilities to each class by weighting the predictand(s)

with the relative frequencies of the weather classes (IPCC, 2001). Resampling, Monte Carlo analysis, regression, and GCM field output are methods of producing time sequences of the weather states. A stochastic version of the weather classification method uses a Markov chain process to determine the transition of the weather states followed by conditional or unconditional wet/dry probabilities assigned to each state. These hidden Markov models are found to adequately reproduce occurrence and persistence of wet/dry spells, as well as interannual variability (Hughes and Guttorp, 1994; Charles et al., 1999; Hughes et al., 1999; Robertson et al., 2004).

A strength of weather classification is the physically based link it provides between prevailing climate patterns and local predictand behavior. This strength, however, is also its greatest weakness in that it is heavily dependent on the main assumption that these physical links will not change in future climates. Another strength of this method is the ability to connect a wide assortment of predictands to weather classification schemes, ranging from snow (Martin et al., 1997) to landslides (Dehn, 1999). Weaknesses include insensitivity to climate change forcings and the additional work required in weather states identification (Wilby et al., 2004).

4.1.3. Weather Generators

Weather generators are stochastic models able to reproduce the statistical characteristics of a local predictand. For use in downscaling, these models are conditioned on large-scale predictors, weather states, or precipitation properties:

$$R_t = F_w(\theta | X_T) \quad \text{for } T \leq t \quad 4-4$$

or

$$R_t = F_w(\theta | S_t)$$

4-5

where θ is the parameter set of the weather generator F_w (Charles et al., 2004). The basic methodology adjusts weather generator parameters based on temporal changes in GCM output or other criteria (Katz, 1996; Wilby et al., 1998; Wilks, 1999). Weather generator parameter adjustments that are also conditioned on large-scale predictors, however, can have better skill in reproducing rainfall characteristic statistics (Katz and Parlange, 1996; Wilks, 1999a; Qian et al., 2002). Adjustment of weather generator parameters can alter relationships between other climate variables (e.g. temperature) conditioned on precipitation occurrence (Wilks, 1992; Katz, 1996). The basic method of weather generator downscaling has two steps, extrapolation and downscaling (Wilby et al, 1998; Wilks, 1999b).

(IPCC, 2001). Two statistical downscaling methods will be employed in this study. Both use stochastic weather generators and involve the adjustment of the Markov and spell-length weather generator parameters to reflect climate change. The methods will be used to determine the impacts of climate change on DRWH the West Africa for the time period of 2045 to 2065.

4.2. Methods

Due to recognized biases within individual GCM models, output data (i.e. precipitation fields) from several GCMs will be downscaled to the local scale by each downscaling method, as described below. These GCMs include the MIROC3.2 medres (MIROC), MRI-CGCM2.3.2 (MRI), and the CCCMA_CGCM3 (CGCM3) modes. The MIROC and MRI models were chosen due to adequate representation of sea-surface

temperatures off the coast of West Africa, and the resulting rainfall patterns in the region (Cook and Vizy, 2006). The CGCM3 also adequately simulated some West Africa precipitation characteristics, though not to the degree of the other two GCMs. The CGCM3 model, however, is used in this study due to its common application in a downscaling method to be considered in future work.

4.2.1. Markov Weather Generator Downscaling

Markov weather generators are commonly used to generate long sequences of weather variable that are statistically similar to the historical record, and have been applied to rainwater harvesting reliability in West Africa (Cowden et al., 2008). Markov weather generator downscaling involves the adjustment of the model parameters of interest (e.g. precipitation transition probabilities) to reflect a changing climate, as predicted by each GCM. This adjustment entails two parts, extrapolation of GCM predictions to large-scale predictors, and downscaling of the altered large-scale predictors to local scale predictands. The methodology herein will follow the steps outlined in Wilby et al. (1998), using area-averaged precipitation parameters as the predictor.

The control and perturbed GCM daily rainfall statistics (i.e. unconditional wet-day probability, π , and lag-1 autocorrelation, r) are determined. An area-average precipitation sequence, equal to the GCM spatial resolution, is then constructed using the local gauge observations. The same rainfall statistics are then calculated for the area-average sequence. All unconditional wet-day probabilities are linearly adjusted on a log-odds scale, and a Fisher Z transform procedure is completed for the lag-1 autocorrelations. The extrapolation step entails applying the GCM difference between the control and perturbed runs to the area-average values. The gamma distribution

parameters, used for wet-day amounts, are extrapolated via a proportional adjustment.

The downscaling method involves determining the relationship between the area-average precipitation and the local precipitation. These relationships are established using linear regression, and are then applied to the extrapolated area-average values to determine the downscaled local rainfall parameters.

4.2.2. Spell-length Weather Generator Downscaling

To produce climate scenario precipitation sequences, the LARS-WG software does not utilize the predictor/predictand extrapolation and downscaling steps. Instead, the software is set up to simply perturb the model parameters by entering the variable difference between control and perturbed GCM runs (Semenov et al., 1998). This is similar to change factor methods, but allows for differing time series on a day-to-day basis (Semenov, 2002). This convention will be followed in this study, with the control and perturbed GCM variables being the change in monthly mean rainfall and the change in wet/dry spell durations. The LARS-WG perturbed model will then be used to generate precipitation sequences for each of the GCMs.

4.2.3. Climate Change Impact Analysis on Domestic Rainwater Harvesting

The impact of climate change on the reliability of DRWH systems will be assessed at the gauged locations. System reliability will be the criterion in assessing DRWH systems in the study region and will be defined as

$$\text{Reliability} = \frac{\# \text{ of time periods, } t, \text{ where } X_t \geq X^T}{n} \quad 4-6$$

where X_t (mm) is the rainfall for day t , X^T (mm) is a defined rainfall threshold value, and n is the total number of days (Loucks et al., 2005). X^T is a function of water demand (S_d ,

m³), roof area available for the DRWH system (A , m²), and a runoff coefficient (C), and is defined as follows.

$$X^T = \frac{1000S_d}{CA} \quad 4-7$$

The water demand (S_d) will be based on the World Health Organization's (WHO) recommendation of a minimum of 20 L of water per person per day and the average African daily water consumption of 50 L (Howard and Bartram, 2003; UN-HABITAT, 2003). The WHO recommendation of 20 L is the minimum quantity of water needed for basic drinking, cooking, sanitation, and hygiene. Average per capita roof areas for African slum households are not reported in the literature, so a range of values (between 2 and 10 m²) will be used, encompassing minimum recommendations taken from previous studies (Thomas, 1998). The runoff coefficient, 0.8, accounts for rainfall lost due to splashing, leaking, and first-flush diversions. There is no carry-over storage for these systems in this analysis, as storage volumes in slum households are either limited or unknown.

4.3. Results

The average monthly DRWH reliability values of each downscaling method used on each GCM were averaged together to produce a multimodel value that was compared to the observed monthly DRWH reliabilities. Analysis based on ensembles of multiple GCMs is an established practice, and the ensemble means are expected to outperform individual model results (Meehl et al., 2007). The minimum and maximum average monthly DRWH reliability values were also determined in order to display a range of results, or as a representation of the uncertainties within the climate change impact

assessment. These averages and ranges were determined for three IPCC Special Report on Emissions Scenarios (SRES). It must be recognized, however, that multimodel results cannot include all possible model configurations due to resource constraints (Meehl et al., 2007).

The SRES are the emission scenarios used by climate modeling centers to examine potential future climate change. The three SRES used in this study are the A1B, A2, and B1 scenarios. The A1B scenario assumes a rapid, global economic growth with a balance across fossil and non-fossil energy use. A2 assumes high population growth, but slow economic and technological development focused on the local scale. B1 is a similar globalization world like A1B, but with economic activity steered toward the service and information sectors. Figure 4-2 and Figure 4-3 illustrate the impacts these emission scenarios have on DRWH reliability at a 20 L/day per capita level.

Figure 4-2 represents the bimodal precipitation patterns prevalent in the coastal areas of the five-country region, and Figure 4-3 shows the unimodal pattern of gauges further inland. All four gauges show a climate change induced decline in DRWH reliability in the ascending limbs of the rainfall pattern (spring and/or early fall), and an increased DRWH reliability in the descending limbs (summer and/or fall). This signifies a slight temporal shift in the bimodal and unimodal precipitation patterns. The climate change impact on DRWH is minimal throughout most of the year, though 5 percent to 10 percent differences are evident during the peak wet times of the year. Large differences and uncertainties associated with the dry months (Nov – Feb) may be attributed to the inability of the weather generators to adequately represent sparse precipitation patterns in this region (Cowden et al., 2008).

The differences in GCMs and downscaling methods are shown in Table 4-1 and Table 4-2. Table 4-1 shows the percentage, by GCM, of the maximum and minimum DRWH reliability values for all roof sizes, which in most cases exceeds or is less than the observed value (see Figure 4-2 and Figure 4-3). The MRI model predicts higher DRWH reliability overall, though the spell-length downscaling method shows wetter CGCM3 results. Both downscaling methods show that the MIROC model consistently predicts the lowest reliability. Table 4-2 shows that the spell-length downscaling model consistently results in higher reliability than the Markov method.

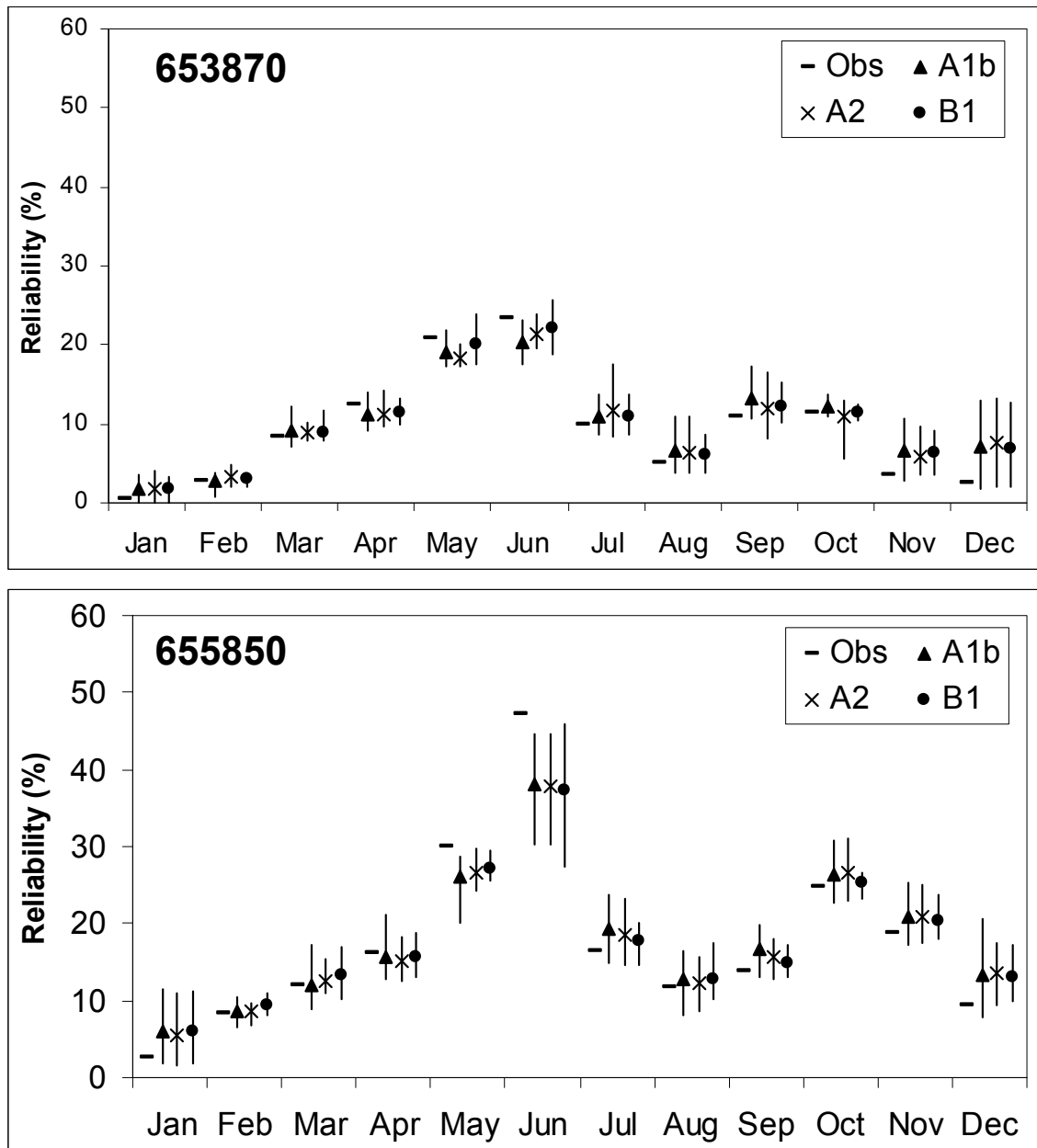


Figure 4-2: Climate Change Impact on 20 L/day Per Capita Reliability in the Coastal Region of West Africa.

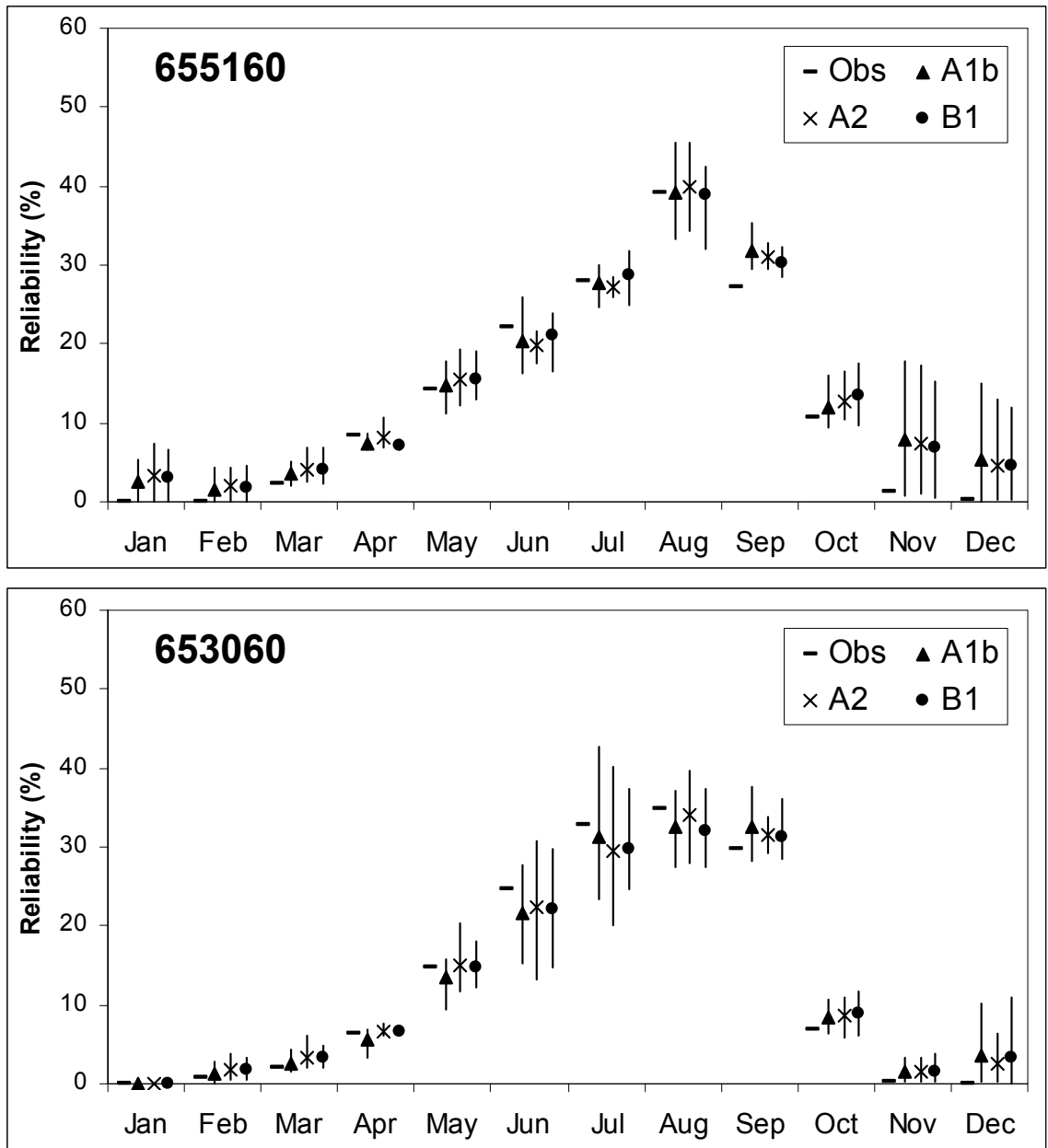


Figure 4-3: Climate Change Impact on 20 L/day Per Capita Reliability in the Inland (Sahel) Region of West Africa.

The potential impact of climate change on DRWH associated with different roof surface areas can be seen in Figure 4-4 and Figure 4-5. Per capita roof areas are not large in most slum communities. A range of 2 m² to 10 m² was used in this study. In general, DWRH reliability improves with the smaller surface areas under the climate change scenarios, but worsens as surface area increases. These two figures show only the A1b scenario, but similar results are found for the A2 and B2 scenarios, though with slightly different change magnitudes. Again, multimodel results are shown with the shaded area representing the range associated with the differing GCMs and downscaling methods. The results of each GCM and downscaling method are shown in Appendix K.

Table 4-1. The Percentage of Maximum and Minimum DRWH Reliability Values by General Circulation Model.

Maximum Values												
Markov Generator	J	F	M	A	M	J	J	A	S	O	N	D
CGCM3	20	34	37	19	33	46	35	16	29	19	10	54
MIROC	38	10	38	4	20	6	8	33	10	52	72	22
MRI	42	55	24	77	47	48	57	51	61	29	18	24
Spell-length Generator	J	F	M	A	M	J	J	A	S	O	N	D
CGCM3	38	67	70	49	63	39	51	27	28	20	22	54
MIROC	50	12	8	2	10	26	8	20	12	40	48	38
MRI	12	22	22	50	28	35	41	53	60	40	30	8
Minimum Values												
Markov Generator	J	F	M	A	M	J	J	A	S	O	N	D
CGCM3	18	10	17	18	25	20	20	10	22	33	48	9
MIROC	23	73	37	74	53	73	67	54	65	20	7	36
MRI	58	17	46	8	22	7	13	36	13	47	45	55
Spell-length Generator	J	F	M	A	M	J	J	A	S	O	N	D
CGCM3	14	7	2	3	10	28	17	28	25	42	46	19
MIROC	14	73	74	91	66	51	67	61	59	28	22	17
MRI	73	20	24	6	24	21	16	10	16	30	32	65

Table 4-2. The Percentage of Maximum and Minimum DRWH Reliability Values by Downscaling Method and General Circulation Model.

Maximum Values												
CGCM3	<i>J</i>	<i>F</i>	<i>M</i>	<i>A</i>	<i>M</i>	<i>J</i>	<i>J</i>	<i>A</i>	<i>S</i>	<i>O</i>	<i>N</i>	<i>D</i>
Markov Generator	0	2	3	10	11	42	17	44	40	34	5	0
Spell-length Generator	100	98	97	90	89	58	83	56	60	66	95	100
MIROC	<i>J</i>	<i>F</i>	<i>M</i>	<i>A</i>	<i>M</i>	<i>J</i>	<i>J</i>	<i>A</i>	<i>S</i>	<i>O</i>	<i>N</i>	<i>D</i>
Markov Generator	0	3	21	38	38	45	37	46	41	30	3	0
Spell-length Generator	100	97	79	62	62	55	63	54	59	70	97	100
MRI	<i>J</i>	<i>F</i>	<i>M</i>	<i>A</i>	<i>M</i>	<i>J</i>	<i>J</i>	<i>A</i>	<i>S</i>	<i>O</i>	<i>N</i>	<i>D</i>
Markov Generator	0	4	8	25	35	50	27	37	29	29	4	1
Spell-length Generator	100	96	92	75	65	50	73	63	71	71	96	99

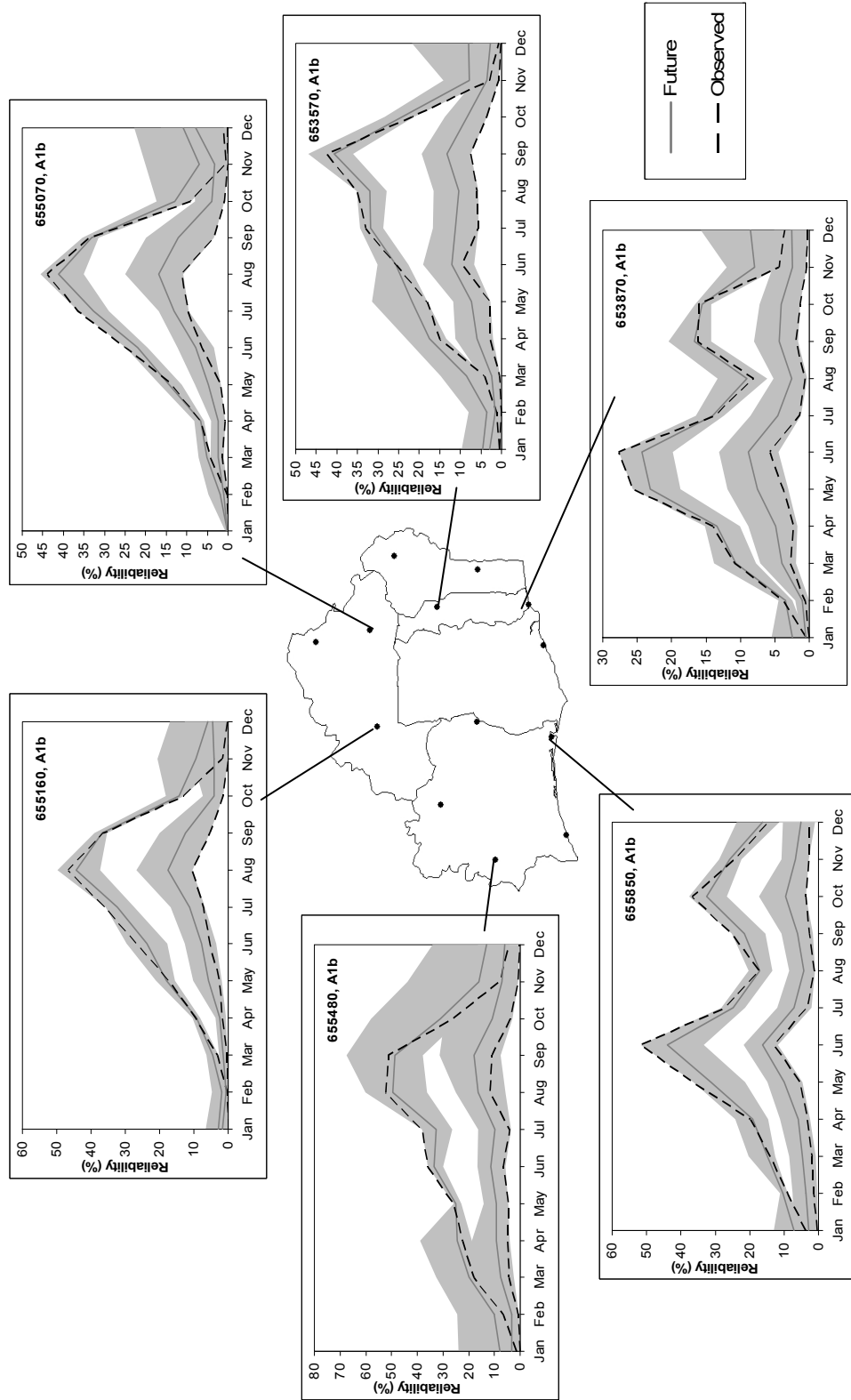


Figure 4-4. Climate Change Impact on 20 L/day Per Capita Reliability.
 The upper curves are for a 10 m² per capita roof area,
 The lower curves are for 2 m² per capita area. Shading indicates multi-model range in future estimates.

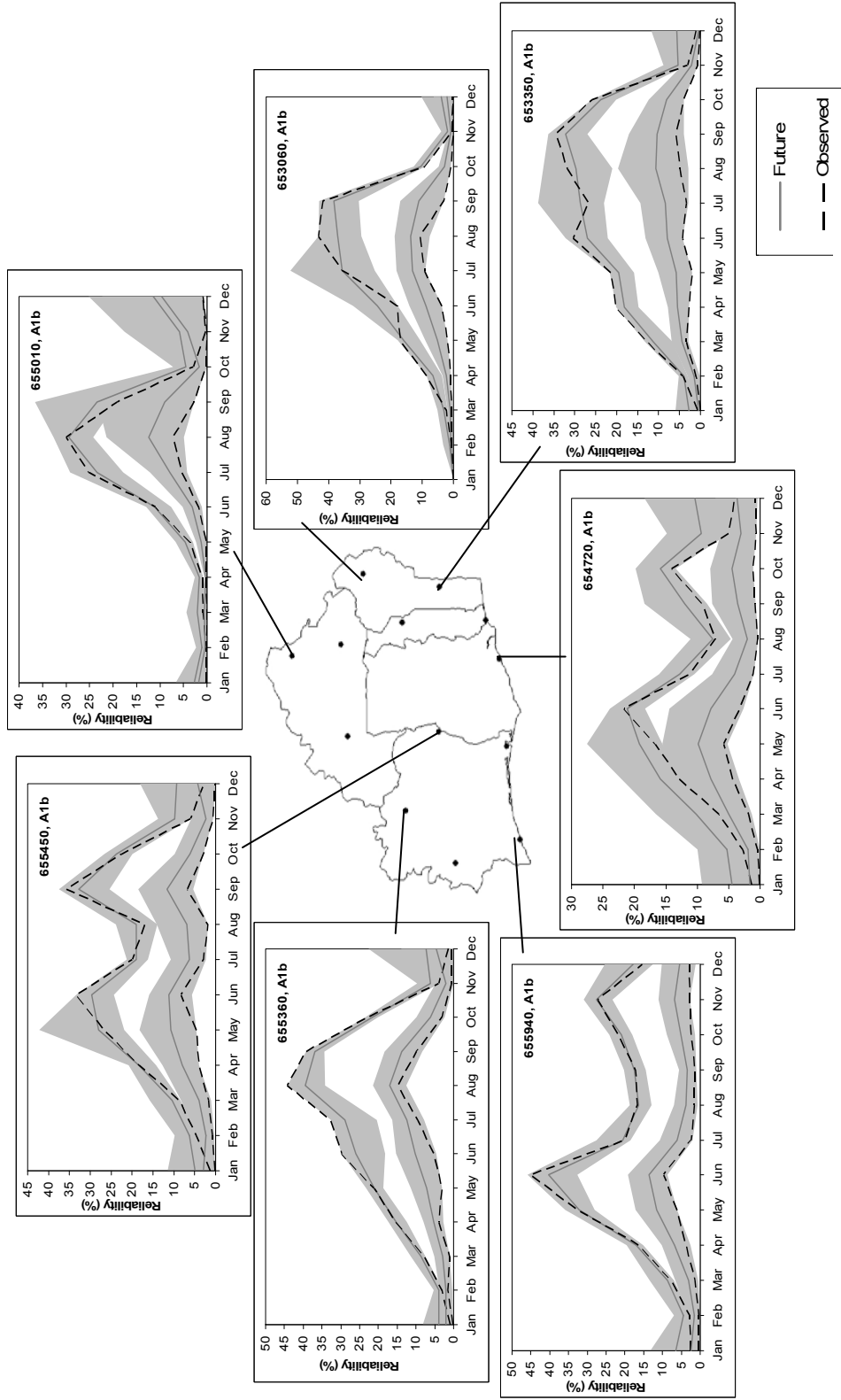


Figure 4-5. Climate Change Impact on 20 L/day Per Capita Reliability.
 The upper curves are for a 10 m² per capita roof area,
 The lower curves are for 2 m² per capita area. Shading indicates multi-model range in future estimates.

4.4. Discussion

Based on these results, climate change is expected to have little impact on domestic rainwater harvesting reliability in West Africa by the mid-21st century, with the slight temporal shift in rainfall patterns causing small increases or decreases in reliability at the larger per capita roof areas. The differences between the emission scenarios are also small. Both the averages and value ranges are similar across most months and gauges for the three SRES scenarios. The only substantial differences come in the extremely wet months, where climate change may drop DRWH reliability by 5 to 10 percent. This seems especially pronounced in the coastal areas with bimodal distributions of seasonal rainfall. These small changes in precipitation are consistent with IPCC observations, which found small changes in precipitation in the Guinean Coast Region (Christensen et al., 2007).

The differences between the GCMs found in this study are consistent with the Cook and Vizzy (2006) results, which looked at GCM performance in the West African region. They found the MIROC model to produce strong warming in the Gulf of Guinea, which stopped the northward movement of the monsoon in the summer months. This large decrease in precipitation results in the minimum DRWH reliability values found here. The MRI model was found to have a more moderate sea surface temperature rise, which resulted in a wetter Guinea Coast in the later part of the 21st century. The larger DRWH reliability values associated with MRI are consistent with these findings.

Climate change impacts on DRWH systems using the smaller 2 m² per capita roof areas appear to me more beneficial than larger roof areas. Across most gauges and months there are improvements in reliability for these small roof areas. Using the

DRWH equation mentioned previously, a 10 m² roof needs a 2.5 mm storm to produce 20 L of water. A 2 m² roof needs 12.5 mm of precipitation. The DRWH reliability results show how under the SRES climate scenarios, larger storms will increase in frequency in the region, whereas smaller storms will decrease in frequency. These results suggest that community improvements toward implementing DRWH system should be focused on increasing water storage. The larger storms need to be captured and stored for later use. Simply enlarging the catchment's surface area will not be adequate. Indeed, during several months of the year there is little difference in reliability between the two roof sizes.

The results of this study, though not showing any large increase in benefits under climate change, still offer up DRWH as a potential adaptation measure for other impacts. Sea level rises are expected to drive millions of West African inland, creating an ecological refugee crisis. Slum communities could emerge faster than infrastructure would be able to provide for them. The UN's Intergovernmental Panel on Climate Change has stated that,

“[A]daptation strategies [in developing countries] should be designed in the context of development, environment and health policies. Many of the options that can be used to reduce future vulnerability are of value in adapting to current climate and can be used to achieve other environmental and social objectives.”
(Bates et al., 2008)

Investments in DRWH technologies now could achieve these development, health, and social objectives, and buffer potential impacts due to population shifts in the future.

Households can have assurance that their drinking water provided by these systems will not change drastically. This is not to say DRWH system can provide all water needs.

The results of this study and Cowden et al. (2008) show that DRWH can only be used to

enhance drinking supplies. This water enhancement, however, is expected to be stable in an otherwise uncertain future, based on GCM simulations.

Several sources of uncertainty exist within statistical downscaling methods, many of which originate in the GCM itself. One large source of uncertainty is the greenhouse gas forcings associated with future emission levels. Variables such as population growth, energy demand, and technology innovations inhibit a confident prediction of future greenhouse gas levels, resulting in the varied climate change scenarios in the current literature. The conversion of these future emissions to atmospheric concentrations and their potential radiative effects are also uncertain (IPCC, 2001).

The GCM's skill also contributes to uncertainty in downscaling results. With poor simulation of current climates and inadequate understanding or resolution of several feedback mechanisms and local forcings, including clouds and land-atmosphere interactions, GCM output will continue to create uncertainty in downscaled local climate variables. Another source of uncertainty in downscaling methods lies within the methods themselves. Using statistical methods and parameter estimation with several assumptions highlights the inadequate knowledge and representation of the physical precipitation processes. Numerical approximation techniques, as well as inadequate observational records due to measurement errors or gauge network sparseness, contribute to this uncertainty in the downscaling model (IPCC, 2001).

Ongoing and needed work in this field is plentiful. The most pressing tasks will be to update these results as more accurate climate and model data become available that lessens the aforementioned uncertainties. Although not within the scope of this work, improving data collection and modeling methods to better represent the precipitation

mechanisms in this region will greatly improve these results. There is a great dearth of climate impact studies using downscaling or regional climate models on the African continent. The reasons and challenges behind this are well recognized, but they must be surmounted to enable planning and action in a region that is least able to adapt to potential global changes.

Chapter 5 Findings and Recommendations for Future Work

5.1. Urban Slums and Urban Metabolism

A city's metabolism is defined as the sum of urban processes (technological and societal) that provide sustenance, maintenance, growth and innovation in cities, as measured through stocks and flows of energy and materials. A knowledge and manipulation of an urban metabolism can be instrumental in improving urban slum conditions and help developing cities avoid the chaotic and impoverished growth many now face. Table 5-1 outlines nine lessons obtained from urban metabolism studies in developed nations, and provides methods, tools, and conclusions applicable to developing countries. By increasing the knowledge of the urban system we hope to improve, humans will be more adequately prepared to address rising slum issues and progress towards other Millennium Development Goals. Smarter and sustainable economic development and city management can only improve efforts to decrease poverty, disease, inequality, etc. As more and more studies are made, greater material and energy efficiency will be possible with appropriate policy implementation. DRWH could contribute to this efficiency and should be a target of such policies.

Table 5-1: Urban Metabolism Lessons for Developing Countries

Lesson	Applicable UN-HABITAT Slum Strategy	Details
Integrate Models	Urban Development, Regional Development	Use an integrated framework when studying the metabolisms and socioeconomics of urban systems.
Include the Whole Urbanized Region in Specifying Metabolism Boundaries	Urban Development	Include smaller peri-urban systems in metabolism analysis by using urban conditions or indicators as guides for policy, not just political boundaries.
Define Efficiency	Urban Development, Regional Development	Establish comprehensive, accurate, and efficient goals/indicators for use with metabolic data.
Understand the Mechanisms Within “Black Box” Processes	Slum upgrading, Urban Development	Gather and analyze detailed process information in order to improve resource management and appropriate technology implementation.
Conduct Metabolism Checkups	Urban Development	Continue to monitor a city’s metabolism to understand the long-term needs and impacts of slums, allowing decision makers to find, solve, and/or prevent problems.
Mitigate Solid and Hazardous Waste Outputs	Slum Upgrading, Urban Development, Regional Development	Create and enforce sound policy in material use reduction, recycling, treatment, and disposal based on metabolism knowledge.
Manage Water and Wastewater Flows	Slum Upgrading, Urban Development, Regional Development	Understand and manage the water and nutrient balances of both city and slum dwellings without negating water/sanitation access through damaging surrounding ecosystems.
Extend Metabolism Parameters to Measure Quality of Life	Slum Upgrading	Find the right balance between livability and metabolism indicators to improve the lives of slum dwellers without necessarily increasing consumption.
Pay Attention to “Change in Storage”	Urban Development, Slum Upgrading	Understand imbalances and accumulations of materials and waste within the urban system to prevent future problems and to utilize potential resources.

5.2. Stochastic Weather Models and Domestic Rainwater Harvesting

DRWH holds great promise for enhancing water supplies in urban slum areas in West Africa, and mitigating climate change impacts. However, DRWH policies need data for development, and sufficient and accurate data is a common problem in developing world meteorological records. To address this problem, parsimonious stochastic rainfall models are developed to produce long, continuous synthetic weather sequences that are statistically similar to the available observations.

The stochastic rainfall modeling outlined in Chapter 3 indicates that the 1st-order Markov model outperforms the zero-order model in reproducing the variability of the rainfall characteristics, including DRWH reliability, examined in this study. The wet days per month are especially critical to small-storage DRWH systems dependent on frequent occurrence of rainfall. For this reason a 1st-order Markov model is also recommended for DRWH assessment in the West African region. The mixed exponential distribution better matches the observed monthly total variability and is therefore recommended for rainfall amounts in stochastic rainfall models used in this region and for DRWH application.

To account for the uncertainty in these stochastic rainfall models, a multi-model approach was used in assessing the capabilities of DRWH systems in providing improved water supply reliability (Figure 5-1). DRWH systems were found to be able to provide improved water supplies through much of the year in West Africa, although alternative sources are needed due to extensive dry spells. If little to no storage is considered, the Markov stochastic rainfall models are of use as they adequately reproduce mean monthly values (e.g. when rainfall exceeds a threshold to allow for collection of > 20 L per capita

per day). As storage volumes increase, however, and households in the developing world attempt to correctly size their tanks for perhaps larger consumptive demands, an accurate representation of spell lengths becomes more important. The LARS-WG stochastic model has a clear advantage in that it almost perfectly matches the observed spell length characteristics.

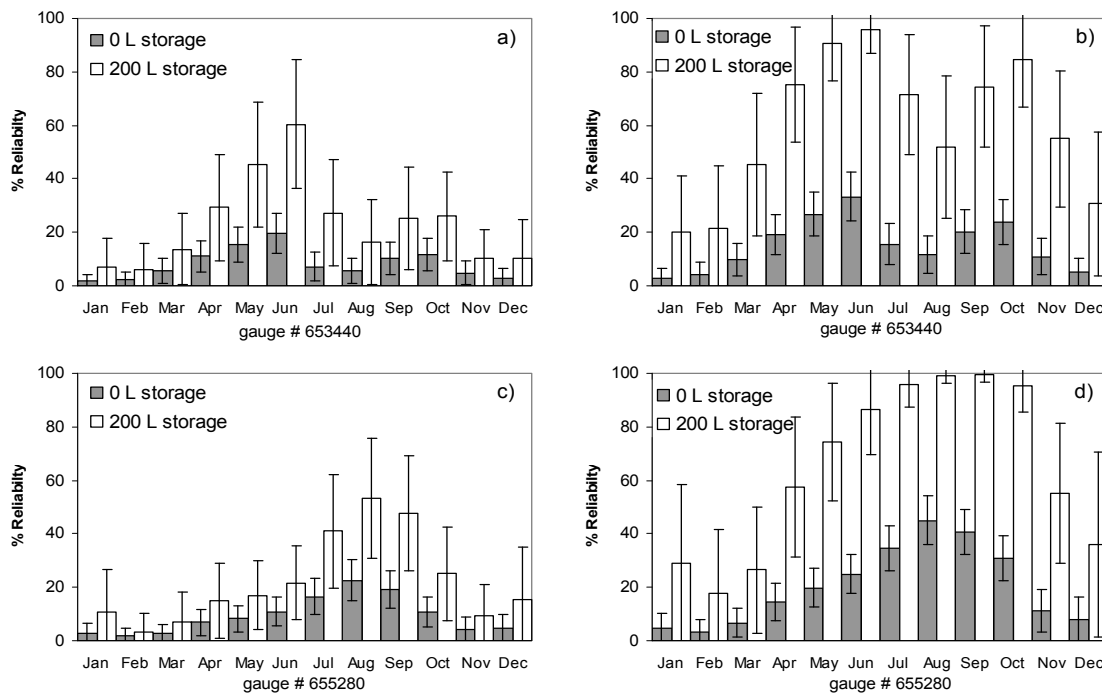


Figure 5-1. Multi-model DRWH reliability for a 2 m² per capita roof area for gauges a) 653440 and c) 655280, and for a 10 m² per capita roof area for gauges b) 653440 and d) 655280. Models used are LARS-WG and 1st order Markov.

5.3. Climate Change Impact on Domestic Rainwater Harvesting

Based on the output of three GCMs, climate change is expected to have little impact on DRWH reliability in West Africa by the mid-21st century, with the slight temporal shift in rainfall patterns causing small increases or decreases in reliability at the larger per capita roof areas (Figure 5-2). The differences between the SRES emission

scenarios are also small. These small changes in precipitation are consistent with IPCC observations, which found small changes in precipitation in the Guinean Coast Region (Christensen et al., 2007). Developing communities in this region can invest with confidence in DRWH systems for drinking water enhancement.

Climate change impacts on DRWH systems using 2 m² per capita roof areas appear to me more beneficial than larger roof areas (Figure 5-2). This indicates a potential change in precipitation frequency and amounts in the region due to climate change. The DRWH reliability results show how under the SRES climate scenarios, larger storms will increase in frequency in the region, whereas smaller storms will decrease in frequency. These results suggest that community improvements toward implementing DRWH systems should be focused on increasing water storage. The larger storms need to be captured and stored for later use. Simply enlarging the catchment's surface area will not be adequate.

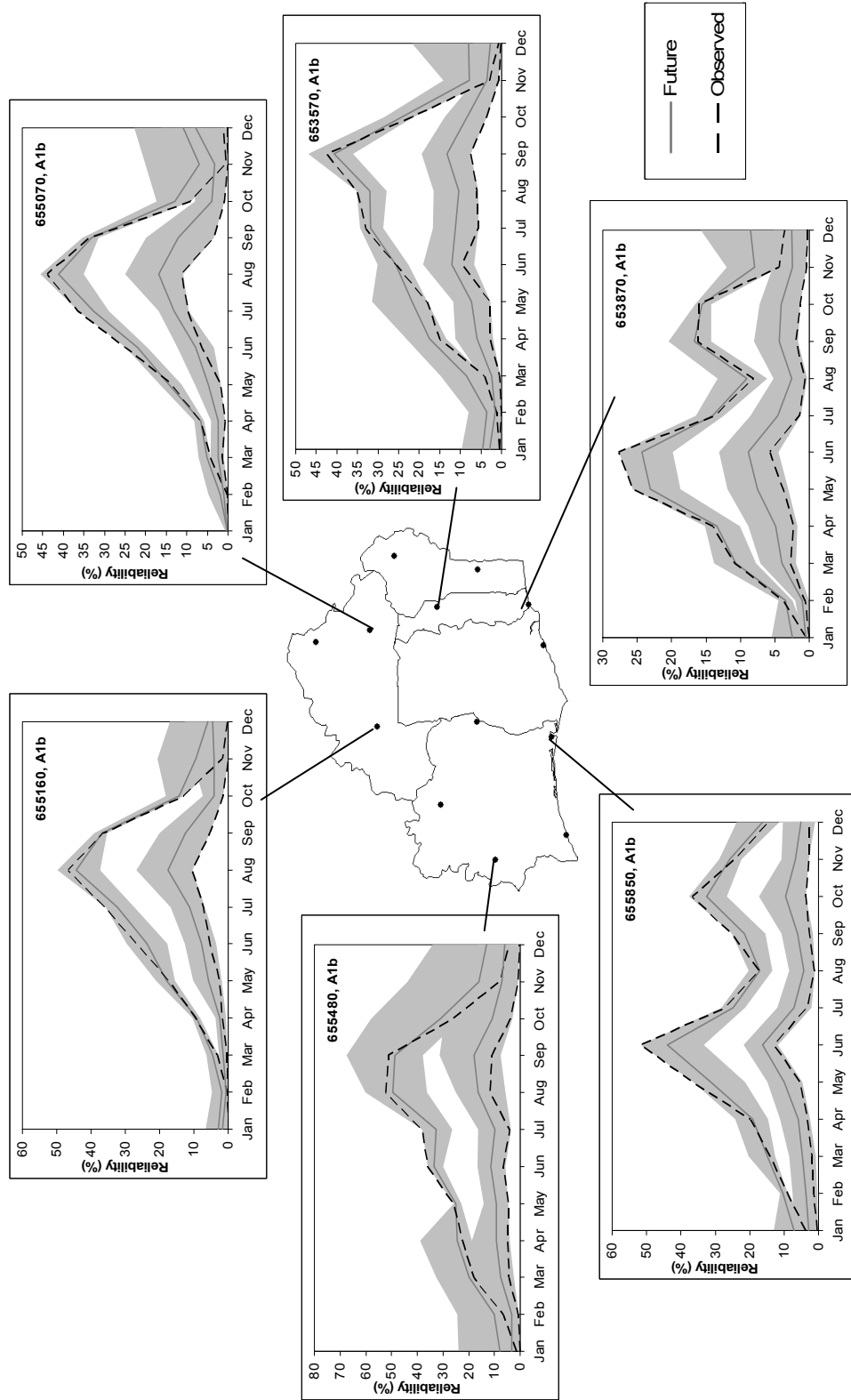


Figure 5-2. Climate Change Impact on 20 L/day Per Capita Reliability.

The upper curves are for a 10 m² per capita roof area,
The lower curves are for 2 m² per capita area. Shading indicates range based on
output of three GCMs.

5.4. Future Work

Future work could include a more complete assessment of DRWH over a range of catchment areas, as well as storage size optimization incorporating direct costs and health impacts. In accessing health impacts, additional consumption levels, such as 50/L and 100/L per day, could also be investigated. These readily available stochastic rainfall models are easily applicable to gauges in other developing regions where cost, training, or data limitations may prohibit the use of more complicated methods.

Ongoing and needed work for the climate change impact assessment is plentiful. The IPCC has stated that climate change and water research is needed in developing nations, and research involving the socioeconomic dimension would be especially helpful (Bates, 2008). Ongoing work includes utilizing a third downscaling method, which is a hybrid regression-stochastic model. Regression downscaling requires identifying observed large-scale predictors that are well correlated with the local predictand and then fitting the regression equations to the relationship. The regression equations are then used to downscale predictand parameters using GCM predictor variables. The Statistical Downscaling Model (SDSM) software will be used for these steps. Future work also includes using a fourth GCM, the GFDL-CM2.0, to better represent GCM variability in precipitation performance.

Another pressing task regarding this study will be to update these results as more accurate climate and model data become available. Although not within the scope of this work, improving data collection and modeling methods to better represent the precipitation mechanisms in this region will greatly improve these results. There is a great dearth of climate impact studies on the African continent, both in downscaling and

regional climate studies. The reasons and challenges behind this are well recognized, but they must be surmounted to enable planning and action in a region that is least able to adapt to potential global changes.

Significant uncertainties also continue to exist in relevant DRWH costs, water use, and health data. Data collection for estimation of these parameters would also greatly improve these results and would allow a robust quantification of the health impacts of improved water supplies. Further sensitivity analyses of cost and health data could also provide an indication of cost-effectiveness. This could be accomplished by connecting water enhancement via DRWH to health metrics, such as relative risk and disability adjusted life years (DALY). Finally, in addition to these potential areas of study, there is also a need to develop relatively simple and transparent assessment methods for informing policy makers.

Chapter 6 References

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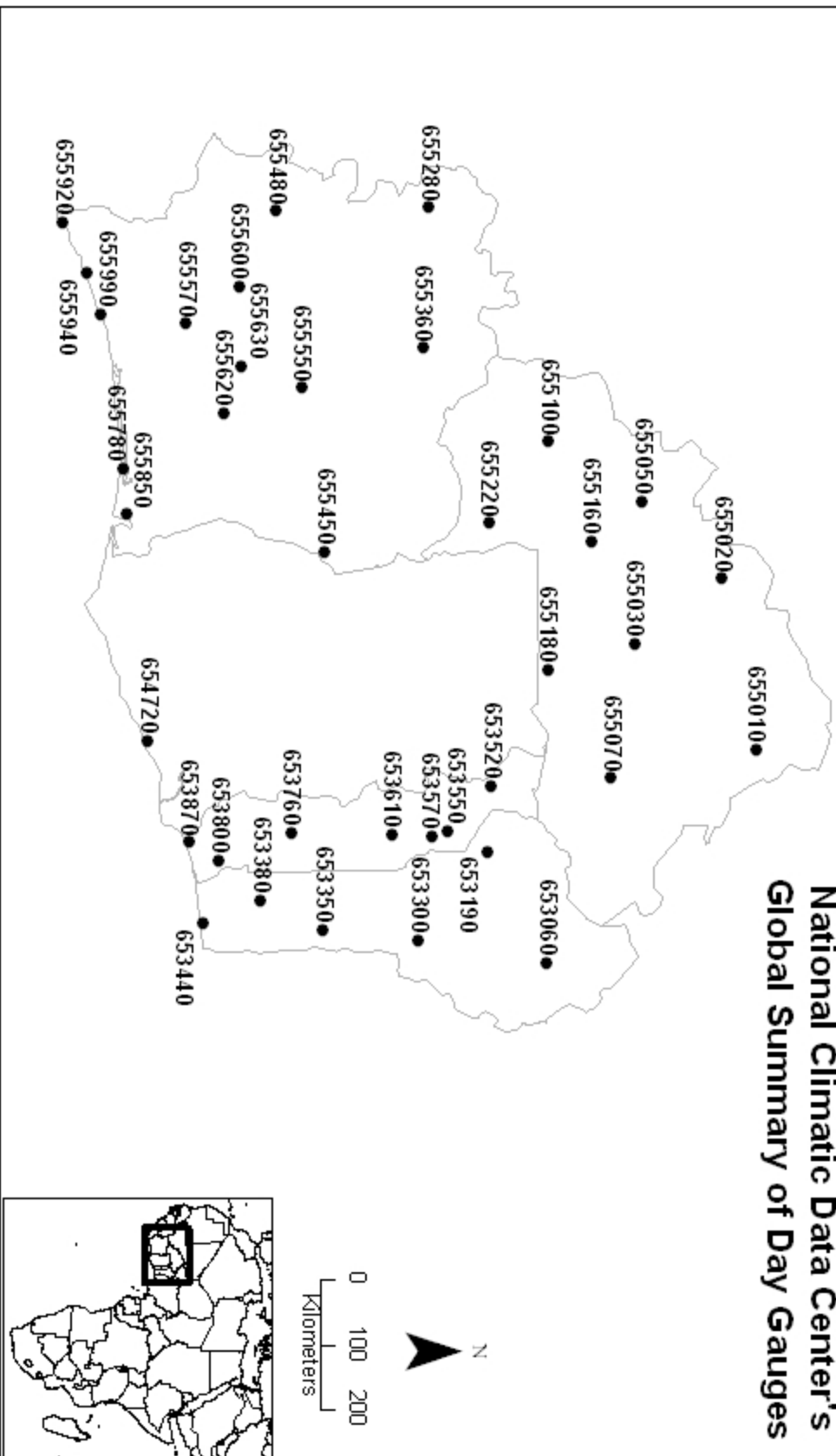
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Appendix A: Map of Gauge Locations

National Climatic Data Center's Global Summary of Day Gauges



Appendix B: Markov Model Transition Probabilities

Zero-Order Markov Transition Probabilities								
Gauge	Jan		Feb		Mar		Apr	
	P _w	P _d	P _w	P _d	P _w	P _d	P _w	P _d
653060	0.000	1.000	0.009	0.991	0.024	0.976	0.094	0.906
653190	0.004	0.996	0.011	0.989	0.062	0.938	0.215	0.785
653300	0.010	0.990	0.014	0.986	0.088	0.912	0.157	0.843
653350	0.012	0.988	0.039	0.961	0.130	0.870	0.239	0.761
653380	0.017	0.983	0.056	0.944	0.163	0.837	0.269	0.731
653440	0.040	0.960	0.060	0.940	0.142	0.858	0.230	0.770
653520	0.002	0.998	0.010	0.990	0.045	0.955	0.115	0.885
653550	0.002	0.998	0.030	0.970	0.088	0.912	0.218	0.782
653570	0.008	0.992	0.016	0.984	0.061	0.939	0.191	0.809
653610	0.012	0.988	0.015	0.985	0.097	0.903	0.225	0.775
653760	0.017	0.983	0.053	0.947	0.124	0.876	0.238	0.762
653800	0.009	0.991	0.075	0.925	0.143	0.857	0.209	0.791
653870	0.023	0.977	0.047	0.953	0.117	0.883	0.197	0.803
654720	0.027	0.973	0.057	0.943	0.088	0.912	0.129	0.871
655010	0.001	0.999	0.004	0.996	0.013	0.987	0.020	0.980
655020	0.001	0.999	0.001	0.999	0.019	0.981	0.033	0.967
655030	0.000	1.000	0.005	0.995	0.029	0.971	0.066	0.934
655050	0.002	0.998	0.005	0.995	0.044	0.956	0.080	0.920
655070	0.000	1.000	0.003	0.997	0.040	0.960	0.090	0.910
655100	0.004	0.996	0.009	0.991	0.062	0.938	0.137	0.863
655160	0.004	0.996	0.001	0.999	0.038	0.962	0.112	0.888
655180	0.000	1.000	0.007	0.993	0.059	0.941	0.105	0.895
655220	0.011	0.989	0.013	0.987	0.067	0.933	0.160	0.840
655280	0.017	0.983	0.015	0.985	0.075	0.925	0.200	0.800
655360	0.008	0.992	0.031	0.969	0.086	0.914	0.179	0.821
655450	0.017	0.983	0.058	0.942	0.118	0.882	0.208	0.792
655480	0.019	0.981	0.081	0.919	0.200	0.800	0.247	0.753
655550	0.023	0.977	0.041	0.959	0.140	0.860	0.216	0.784
655570	0.048	0.952	0.131	0.869	0.253	0.747	0.303	0.697
655600	0.024	0.976	0.099	0.901	0.194	0.806	0.237	0.763
655620	0.024	0.976	0.082	0.918	0.201	0.799	0.223	0.777
655630	0.025	0.975	0.071	0.929	0.194	0.806	0.245	0.755
655780	0.060	0.940	0.099	0.901	0.186	0.814	0.265	0.735
655850	0.051	0.949	0.132	0.868	0.214	0.786	0.273	0.727
655920	0.116	0.884	0.122	0.878	0.150	0.850	0.276	0.724
655940	0.042	0.958	0.043	0.957	0.092	0.908	0.180	0.820
655990	0.037	0.963	0.071	0.929	0.086	0.914	0.199	0.801

Zero-Order Markov Transition Probabilities								
Gauge	May		Jun		Jul		Aug	
	P _w	P _d	P _w	P _d	P _w	P _d	P _w	P _d
653060	0.219	0.781	0.312	0.688	0.412	0.588	0.478	0.522
653190	0.266	0.734	0.386	0.614	0.491	0.509	0.580	0.420
653300	0.298	0.702	0.378	0.622	0.447	0.553	0.481	0.519
653350	0.272	0.728	0.409	0.591	0.354	0.646	0.356	0.644
653380	0.303	0.697	0.368	0.632	0.353	0.647	0.310	0.690
653440	0.351	0.649	0.482	0.518	0.254	0.746	0.216	0.784
653520	0.212	0.788	0.261	0.739	0.335	0.665	0.362	0.638
653550	0.345	0.655	0.398	0.602	0.497	0.503	0.600	0.400
653570	0.253	0.747	0.282	0.718	0.413	0.587	0.462	0.538
653610	0.309	0.691	0.409	0.591	0.544	0.456	0.554	0.446
653760	0.261	0.739	0.369	0.631	0.444	0.556	0.413	0.587
653800	0.260	0.740	0.326	0.674	0.235	0.765	0.208	0.792
653870	0.302	0.698	0.360	0.640	0.187	0.813	0.174	0.826
654720	0.167	0.833	0.312	0.688	0.172	0.828	0.160	0.840
655010	0.084	0.916	0.170	0.830	0.271	0.729	0.342	0.658
655020	0.110	0.890	0.226	0.774	0.341	0.659	0.431	0.569
655030	0.179	0.821	0.275	0.725	0.376	0.624	0.453	0.547
655050	0.160	0.840	0.242	0.758	0.363	0.637	0.472	0.528
655070	0.187	0.813	0.282	0.718	0.378	0.622	0.471	0.529
655100	0.225	0.775	0.329	0.671	0.394	0.606	0.527	0.473
655160	0.209	0.791	0.302	0.698	0.397	0.603	0.523	0.477
655180	0.195	0.805	0.325	0.675	0.362	0.638	0.522	0.478
655220	0.231	0.769	0.288	0.712	0.398	0.602	0.456	0.544
655280	0.237	0.763	0.311	0.689	0.431	0.569	0.558	0.442
655360	0.265	0.735	0.291	0.709	0.333	0.667	0.432	0.568
655450	0.307	0.693	0.346	0.654	0.240	0.760	0.249	0.751
655480	0.299	0.701	0.379	0.621	0.507	0.493	0.597	0.403
655550	0.236	0.764	0.284	0.716	0.233	0.767	0.299	0.701
655570	0.424	0.576	0.456	0.544	0.271	0.729	0.332	0.668
655600	0.322	0.678	0.365	0.635	0.323	0.677	0.396	0.604
655620	0.336	0.664	0.382	0.618	0.261	0.739	0.267	0.733
655630	0.319	0.681	0.345	0.655	0.228	0.772	0.280	0.720
655780	0.448	0.552	0.536	0.464	0.251	0.749	0.208	0.792
655850	0.467	0.533	0.585	0.415	0.382	0.618	0.350	0.650
655920	0.531	0.469	0.564	0.436	0.393	0.607	0.531	0.469
655940	0.403	0.597	0.530	0.470	0.296	0.704	0.302	0.698
655990	0.419	0.581	0.490	0.510	0.246	0.754	0.272	0.728

Zero-Order Markov Transition Probabilities								
Gauge	Sep		Oct		Nov		Dec	
	P _w	P _d	P _w	P _d	P _w	P _d	P _w	P _d
653060	0.421	0.579	0.128	0.872	0.008	0.992	0.001	0.999
653190	0.592	0.408	0.298	0.702	0.032	0.968	0.003	0.997
653300	0.514	0.486	0.276	0.724	0.025	0.975	0.010	0.990
653350	0.416	0.584	0.326	0.674	0.039	0.961	0.011	0.989
653380	0.375	0.625	0.308	0.692	0.077	0.923	0.028	0.972
653440	0.329	0.671	0.337	0.663	0.137	0.863	0.043	0.957
653520	0.467	0.533	0.188	0.812	0.026	0.974	0.004	0.996
653550	0.584	0.416	0.391	0.609	0.068	0.932	0.011	0.989
653570	0.452	0.548	0.270	0.730	0.033	0.967	0.009	0.991
653610	0.529	0.471	0.300	0.700	0.052	0.948	0.019	0.981
653760	0.375	0.625	0.295	0.705	0.059	0.941	0.020	0.980
653800	0.288	0.712	0.342	0.658	0.121	0.879	0.029	0.971
653870	0.243	0.757	0.233	0.767	0.086	0.914	0.033	0.967
654720	0.173	0.827	0.222	0.778	0.088	0.912	0.039	0.961
655010	0.244	0.756	0.058	0.942	0.003	0.997	0.006	0.994
655020	0.303	0.697	0.117	0.883	0.006	0.994	0.003	0.997
655030	0.335	0.665	0.128	0.872	0.016	0.984	0.006	0.994
655050	0.348	0.652	0.154	0.846	0.020	0.980	0.006	0.994
655070	0.371	0.629	0.133	0.867	0.012	0.988	0.009	0.991
655100	0.459	0.541	0.194	0.806	0.040	0.960	0.008	0.992
655160	0.388	0.612	0.161	0.839	0.023	0.977	0.003	0.997
655180	0.398	0.602	0.147	0.853	0.038	0.962	0.004	0.996
655220	0.456	0.544	0.254	0.746	0.038	0.962	0.009	0.991
655280	0.520	0.480	0.366	0.634	0.097	0.903	0.017	0.983
655360	0.432	0.568	0.313	0.687	0.074	0.926	0.009	0.991
655450	0.425	0.575	0.308	0.692	0.099	0.901	0.037	0.963
655480	0.563	0.437	0.348	0.652	0.116	0.884	0.044	0.956
655550	0.369	0.631	0.253	0.747	0.072	0.928	0.037	0.963
655570	0.421	0.579	0.409	0.591	0.296	0.704	0.114	0.886
655600	0.426	0.574	0.292	0.708	0.132	0.868	0.056	0.944
655620	0.345	0.655	0.325	0.675	0.128	0.872	0.048	0.952
655630	0.358	0.642	0.331	0.669	0.156	0.844	0.059	0.941
655780	0.267	0.733	0.377	0.623	0.352	0.648	0.177	0.823
655850	0.416	0.584	0.473	0.527	0.385	0.615	0.184	0.816
655920	0.596	0.404	0.485	0.515	0.430	0.570	0.257	0.743
655940	0.319	0.681	0.351	0.649	0.358	0.642	0.178	0.822
655990	0.246	0.754	0.318	0.682	0.296	0.704	0.137	0.863

Gauge	1st-Order Markov Transition Probabilities							
	Jan				Feb			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	1.000	0.000	1.000	0.000	1.000	0.009	0.991
653190	0.000	1.000	0.004	0.996	0.333	0.667	0.008	0.992
653300	0.286	0.714	0.008	0.992	0.167	0.833	0.012	0.988
653350	0.100	0.900	0.011	0.989	0.207	0.793	0.032	0.968
653380	0.000	1.000	0.018	0.982	0.132	0.868	0.051	0.949
653440	0.121	0.879	0.037	0.963	0.140	0.860	0.055	0.945
653520	0.000	1.000	0.002	0.998	0.000	1.000	0.010	0.990
653550	0.000	0.000	0.002	0.998	0.100	0.900	0.028	0.972
653570	0.333	0.667	0.006	0.994	0.167	0.833	0.013	0.987
653610	0.000	1.000	0.012	0.988	0.000	1.000	0.016	0.984
653760	0.000	1.000	0.017	0.983	0.120	0.880	0.050	0.950
653800	0.000	1.000	0.009	0.991	0.214	0.786	0.064	0.936
653870	0.150	0.850	0.020	0.980	0.094	0.906	0.045	0.955
654720	0.111	0.889	0.025	0.975	0.063	0.938	0.056	0.944
655010	0.000	1.000	0.001	0.999	0.000	1.000	0.004	0.996
655020	0.000	1.000	0.001	0.999	0.000	1.000	0.001	0.999
655030	0.000	1.000	0.000	1.000	0.000	1.000	0.005	0.995
655050	0.000	1.000	0.002	0.998	0.000	1.000	0.005	0.995
655070	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655100	0.000	1.000	0.004	0.996	0.143	0.857	0.008	0.992
655160	0.000	1.000	0.004	0.996	0.000	1.000	0.001	0.999
655180	0.000	0.000	0.000	1.000	0.000	1.000	0.007	0.993
655220	0.000	1.000	0.011	0.989	0.000	1.000	0.013	0.987
655280	0.154	0.846	0.014	0.986	0.000	1.000	0.015	0.985
655360	0.125	0.875	0.007	0.993	0.071	0.929	0.030	0.970
655450	0.167	0.833	0.016	0.984	0.242	0.758	0.047	0.953
655480	0.200	0.800	0.016	0.984	0.245	0.755	0.067	0.933
655550	0.167	0.833	0.020	0.980	0.130	0.870	0.037	0.963
655570	0.207	0.793	0.040	0.960	0.211	0.789	0.119	0.881
655600	0.000	1.000	0.025	0.975	0.161	0.839	0.092	0.908
655620	0.000	1.000	0.025	0.975	0.106	0.894	0.080	0.920
655630	0.111	0.889	0.023	0.977	0.083	0.917	0.070	0.930
655780	0.229	0.771	0.050	0.950	0.203	0.797	0.088	0.912
655850	0.154	0.846	0.046	0.954	0.179	0.821	0.125	0.875
655920	0.250	0.750	0.096	0.904	0.218	0.782	0.109	0.891
655940	0.188	0.813	0.036	0.964	0.038	0.962	0.044	0.956
655990	0.250	0.750	0.027	0.973	0.108	0.892	0.069	0.931

Gauge	1st-Order Markov Transition Probabilities							
	Mar					Apr		
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.158	0.842	0.020	0.980	0.186	0.814	0.085	0.915
653190	0.245	0.755	0.049	0.951	0.290	0.710	0.196	0.804
653300	0.185	0.815	0.080	0.920	0.205	0.795	0.148	0.852
653350	0.239	0.761	0.115	0.885	0.279	0.721	0.226	0.774
653380	0.160	0.840	0.164	0.836	0.285	0.715	0.263	0.737
653440	0.222	0.778	0.128	0.872	0.261	0.739	0.222	0.778
653520	0.217	0.783	0.036	0.964	0.109	0.891	0.116	0.884
653550	0.081	0.919	0.089	0.911	0.233	0.767	0.215	0.785
653570	0.174	0.826	0.054	0.946	0.239	0.761	0.180	0.820
653610	0.119	0.881	0.095	0.905	0.217	0.783	0.227	0.773
653760	0.186	0.814	0.114	0.886	0.274	0.726	0.226	0.774
653800	0.193	0.807	0.135	0.865	0.123	0.877	0.229	0.771
653870	0.225	0.775	0.103	0.897	0.295	0.705	0.176	0.824
654720	0.132	0.868	0.083	0.917	0.170	0.830	0.122	0.878
655010	0.200	0.800	0.011	0.989	0.000	1.000	0.020	0.980
655020	0.077	0.923	0.018	0.982	0.045	0.955	0.033	0.967
655030	0.208	0.792	0.024	0.976	0.140	0.860	0.061	0.939
655050	0.300	0.700	0.033	0.967	0.265	0.735	0.065	0.935
655070	0.250	0.750	0.031	0.969	0.176	0.824	0.082	0.918
655100	0.229	0.771	0.052	0.948	0.255	0.745	0.119	0.881
655160	0.233	0.767	0.030	0.970	0.197	0.803	0.101	0.899
655180	0.346	0.654	0.042	0.958	0.238	0.762	0.089	0.911
655220	0.261	0.739	0.054	0.946	0.200	0.800	0.152	0.848
655280	0.125	0.875	0.071	0.929	0.245	0.755	0.189	0.811
655360	0.163	0.837	0.079	0.921	0.208	0.792	0.173	0.827
655450	0.230	0.770	0.102	0.898	0.218	0.782	0.206	0.794
655480	0.239	0.761	0.190	0.810	0.234	0.766	0.252	0.748
655550	0.171	0.829	0.135	0.865	0.248	0.752	0.207	0.793
655570	0.365	0.635	0.212	0.788	0.285	0.715	0.312	0.688
655600	0.178	0.822	0.198	0.802	0.212	0.788	0.244	0.756
655620	0.311	0.689	0.174	0.826	0.250	0.750	0.215	0.785
655630	0.270	0.730	0.177	0.823	0.231	0.769	0.250	0.750
655780	0.258	0.742	0.170	0.830	0.307	0.693	0.250	0.750
655850	0.265	0.735	0.199	0.801	0.291	0.709	0.267	0.733
655920	0.216	0.784	0.138	0.862	0.378	0.622	0.239	0.761
655940	0.077	0.923	0.093	0.907	0.258	0.742	0.163	0.837
655990	0.125	0.875	0.083	0.917	0.291	0.709	0.175	0.825

Gauge	1st-Order Markov Transition Probabilities							
	May				Jun			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.241	0.759	0.213	0.787	0.292	0.708	0.321	0.679
653190	0.325	0.675	0.244	0.756	0.417	0.583	0.366	0.634
653300	0.255	0.745	0.318	0.682	0.391	0.609	0.369	0.631
653350	0.274	0.726	0.271	0.729	0.450	0.550	0.381	0.619
653380	0.352	0.648	0.282	0.718	0.364	0.636	0.371	0.629
653440	0.349	0.651	0.352	0.648	0.538	0.462	0.428	0.572
653520	0.284	0.716	0.194	0.806	0.276	0.724	0.256	0.744
653550	0.400	0.600	0.316	0.684	0.455	0.545	0.357	0.643
653570	0.327	0.673	0.227	0.773	0.277	0.723	0.283	0.717
653610	0.302	0.698	0.312	0.688	0.403	0.597	0.413	0.587
653760	0.306	0.694	0.245	0.755	0.404	0.596	0.349	0.651
653800	0.294	0.706	0.248	0.752	0.357	0.643	0.311	0.689
653870	0.322	0.678	0.293	0.707	0.417	0.583	0.328	0.672
654720	0.277	0.723	0.145	0.855	0.439	0.561	0.259	0.741
655010	0.197	0.803	0.073	0.927	0.157	0.843	0.173	0.827
655020	0.192	0.808	0.100	0.900	0.199	0.801	0.234	0.766
655030	0.201	0.799	0.175	0.825	0.217	0.783	0.297	0.703
655050	0.262	0.738	0.142	0.858	0.200	0.800	0.256	0.744
655070	0.211	0.789	0.182	0.818	0.295	0.705	0.277	0.723
655100	0.208	0.792	0.230	0.770	0.319	0.681	0.335	0.665
655160	0.264	0.736	0.195	0.805	0.269	0.731	0.317	0.683
655180	0.228	0.772	0.188	0.812	0.257	0.743	0.356	0.644
655220	0.257	0.743	0.224	0.776	0.250	0.750	0.306	0.694
655280	0.206	0.794	0.247	0.753	0.226	0.774	0.348	0.652
655360	0.257	0.743	0.268	0.732	0.259	0.741	0.304	0.696
655450	0.332	0.668	0.296	0.704	0.337	0.663	0.351	0.649
655480	0.304	0.696	0.297	0.703	0.411	0.589	0.359	0.641
655550	0.262	0.738	0.228	0.772	0.290	0.710	0.282	0.718
655570	0.476	0.524	0.387	0.613	0.520	0.480	0.401	0.599
655600	0.303	0.697	0.330	0.670	0.415	0.585	0.336	0.664
655620	0.354	0.646	0.327	0.673	0.415	0.585	0.360	0.640
655630	0.309	0.691	0.324	0.676	0.446	0.554	0.291	0.709
655780	0.504	0.496	0.402	0.598	0.589	0.411	0.469	0.531
655850	0.487	0.513	0.450	0.550	0.660	0.340	0.472	0.528
655920	0.620	0.380	0.430	0.570	0.624	0.376	0.486	0.514
655940	0.498	0.502	0.345	0.655	0.574	0.426	0.478	0.522
655990	0.534	0.466	0.340	0.660	0.556	0.444	0.424	0.576

Gauge	1st-Order Markov Transition Probabilities							
	Jul					Aug		
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.408	0.592	0.414	0.586	0.482	0.518	0.474	0.526
653190	0.502	0.498	0.482	0.518	0.578	0.422	0.583	0.417
653300	0.512	0.488	0.394	0.606	0.535	0.465	0.427	0.573
653350	0.467	0.533	0.292	0.708	0.466	0.534	0.296	0.704
653380	0.409	0.591	0.325	0.675	0.449	0.551	0.242	0.758
653440	0.430	0.570	0.189	0.811	0.378	0.622	0.172	0.828
653520	0.320	0.680	0.343	0.657	0.345	0.655	0.372	0.628
653550	0.506	0.494	0.488	0.512	0.601	0.399	0.599	0.401
653570	0.382	0.618	0.435	0.565	0.503	0.497	0.426	0.574
653610	0.569	0.431	0.515	0.485	0.608	0.392	0.485	0.515
653760	0.542	0.458	0.371	0.629	0.445	0.555	0.389	0.611
653800	0.340	0.660	0.202	0.798	0.404	0.596	0.151	0.849
653870	0.347	0.653	0.149	0.851	0.279	0.721	0.151	0.849
654720	0.400	0.600	0.121	0.879	0.242	0.758	0.144	0.856
655010	0.161	0.839	0.312	0.688	0.316	0.684	0.355	0.645
655020	0.332	0.668	0.345	0.655	0.399	0.601	0.454	0.546
655030	0.314	0.686	0.415	0.585	0.442	0.558	0.463	0.537
655050	0.317	0.683	0.388	0.612	0.444	0.556	0.495	0.505
655070	0.346	0.654	0.396	0.604	0.440	0.560	0.498	0.502
655100	0.372	0.628	0.407	0.593	0.522	0.478	0.532	0.468
655160	0.363	0.637	0.419	0.581	0.526	0.474	0.519	0.481
655180	0.347	0.653	0.370	0.630	0.530	0.470	0.514	0.486
655220	0.384	0.616	0.408	0.592	0.454	0.546	0.457	0.543
655280	0.469	0.531	0.401	0.599	0.567	0.433	0.547	0.453
655360	0.333	0.667	0.333	0.667	0.457	0.543	0.414	0.586
655450	0.333	0.667	0.211	0.789	0.349	0.651	0.218	0.782
655480	0.580	0.420	0.425	0.575	0.608	0.392	0.580	0.420
655550	0.358	0.642	0.194	0.806	0.411	0.589	0.253	0.747
655570	0.429	0.571	0.211	0.789	0.447	0.553	0.277	0.723
655600	0.466	0.534	0.255	0.745	0.460	0.540	0.353	0.647
655620	0.406	0.594	0.210	0.790	0.400	0.600	0.222	0.778
655630	0.320	0.680	0.200	0.800	0.393	0.607	0.236	0.764
655780	0.465	0.535	0.172	0.828	0.389	0.611	0.159	0.841
655850	0.528	0.472	0.291	0.709	0.495	0.505	0.273	0.727
655920	0.560	0.440	0.272	0.728	0.613	0.387	0.441	0.559
655940	0.464	0.536	0.221	0.779	0.456	0.544	0.234	0.766
655990	0.451	0.549	0.179	0.821	0.437	0.563	0.212	0.788

Gauge	1st-Order Markov Transition Probabilities							
	Sep					Oct		
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.408	0.592	0.431	0.569	0.255	0.745	0.108	0.892
653190	0.599	0.401	0.581	0.419	0.451	0.549	0.232	0.768
653300	0.533	0.467	0.492	0.508	0.427	0.573	0.216	0.784
653350	0.418	0.582	0.414	0.586	0.377	0.623	0.299	0.701
653380	0.448	0.552	0.331	0.669	0.364	0.636	0.283	0.717
653440	0.425	0.575	0.283	0.717	0.384	0.616	0.311	0.689
653520	0.512	0.488	0.428	0.572	0.384	0.616	0.139	0.861
653550	0.609	0.391	0.544	0.456	0.441	0.559	0.357	0.643
653570	0.485	0.515	0.421	0.579	0.409	0.591	0.216	0.784
653610	0.540	0.460	0.516	0.484	0.446	0.554	0.236	0.764
653760	0.410	0.590	0.354	0.646	0.359	0.641	0.269	0.731
653800	0.394	0.606	0.244	0.756	0.313	0.688	0.357	0.643
653870	0.337	0.663	0.211	0.789	0.291	0.709	0.215	0.785
654720	0.344	0.656	0.137	0.863	0.372	0.628	0.180	0.820
655010	0.286	0.714	0.228	0.772	0.174	0.826	0.051	0.949
655020	0.320	0.680	0.295	0.705	0.208	0.792	0.103	0.897
655030	0.313	0.687	0.347	0.653	0.193	0.807	0.117	0.883
655050	0.298	0.702	0.378	0.622	0.219	0.781	0.142	0.858
655070	0.409	0.591	0.348	0.652	0.189	0.811	0.124	0.876
655100	0.455	0.545	0.462	0.538	0.283	0.717	0.171	0.829
655160	0.438	0.562	0.354	0.646	0.236	0.764	0.145	0.855
655180	0.376	0.624	0.414	0.586	0.283	0.717	0.122	0.878
655220	0.433	0.567	0.475	0.525	0.294	0.706	0.240	0.760
655280	0.491	0.509	0.554	0.446	0.403	0.597	0.343	0.657
655360	0.410	0.590	0.450	0.550	0.429	0.571	0.257	0.743
655450	0.469	0.531	0.394	0.606	0.408	0.592	0.262	0.738
655480	0.571	0.429	0.551	0.449	0.474	0.526	0.280	0.720
655550	0.437	0.563	0.328	0.672	0.321	0.679	0.230	0.770
655570	0.506	0.494	0.358	0.642	0.388	0.612	0.424	0.576
655600	0.497	0.503	0.369	0.631	0.325	0.675	0.277	0.723
655620	0.449	0.551	0.286	0.714	0.374	0.626	0.301	0.699
655630	0.423	0.577	0.321	0.679	0.375	0.625	0.309	0.691
655780	0.390	0.610	0.223	0.777	0.511	0.489	0.292	0.708
655850	0.488	0.512	0.366	0.634	0.530	0.470	0.421	0.579
655920	0.674	0.326	0.467	0.533	0.567	0.433	0.401	0.599
655940	0.457	0.543	0.251	0.749	0.462	0.538	0.290	0.710
655990	0.383	0.617	0.197	0.803	0.432	0.568	0.264	0.736

Gauge	1st-Order Markov Transition Probabilities							
	Nov					Dec		
	P_{ww}	P_{wd}	P_{dw}	P_{dd}	P_{ww}	P_{wd}	P_{dw}	P_{dd}
653060	0.286	0.714	0.005	0.995	0.000	1.000	0.001	0.999
653190	0.300	0.700	0.021	0.979	0.000	1.000	0.003	0.997
653300	0.273	0.727	0.018	0.982	0.000	1.000	0.010	0.990
653350	0.147	0.853	0.034	0.966	0.111	0.889	0.010	0.990
653380	0.246	0.754	0.063	0.937	0.000	1.000	0.029	0.971
653440	0.275	0.725	0.114	0.886	0.091	0.909	0.041	0.959
653520	0.154	0.846	0.023	0.977	0.000	1.000	0.004	0.996
653550	0.370	0.630	0.044	0.956	0.000	1.000	0.011	0.989
653570	0.214	0.786	0.028	0.972	0.000	1.000	0.009	0.991
653610	0.229	0.771	0.040	0.960	0.250	0.750	0.014	0.986
653760	0.073	0.927	0.058	0.942	0.000	1.000	0.021	0.979
653800	0.194	0.806	0.109	0.891	0.133	0.867	0.026	0.974
653870	0.157	0.843	0.079	0.921	0.071	0.929	0.032	0.968
654720	0.111	0.889	0.086	0.914	0.000	1.000	0.041	0.959
655010	0.000	1.000	0.003	0.997	0.000	1.000	0.007	0.993
655020	0.200	0.800	0.004	0.996	0.000	1.000	0.003	0.997
655030	0.133	0.867	0.014	0.986	0.200	0.800	0.005	0.995
655050	0.200	0.800	0.016	0.984	0.000	1.000	0.006	0.994
655070	0.091	0.909	0.011	0.989	0.333	0.667	0.006	0.994
655100	0.263	0.737	0.029	0.971	0.000	1.000	0.008	0.992
655160	0.412	0.588	0.013	0.987	0.000	1.000	0.003	0.997
655180	0.313	0.688	0.027	0.973	0.200	0.800	0.002	0.998
655220	0.138	0.862	0.033	0.967	0.167	0.833	0.007	0.993
655280	0.254	0.746	0.079	0.921	0.200	0.800	0.013	0.987
655360	0.179	0.821	0.064	0.936	0.167	0.833	0.008	0.992
655450	0.226	0.774	0.085	0.915	0.250	0.750	0.028	0.972
655480	0.218	0.782	0.100	0.900	0.179	0.821	0.038	0.962
655550	0.185	0.815	0.062	0.938	0.080	0.920	0.036	0.964
655570	0.321	0.679	0.286	0.714	0.240	0.760	0.097	0.903
655600	0.333	0.667	0.098	0.902	0.133	0.867	0.052	0.948
655620	0.276	0.724	0.108	0.892	0.032	0.968	0.049	0.951
655630	0.287	0.713	0.131	0.869	0.194	0.806	0.049	0.951
655780	0.409	0.591	0.319	0.681	0.321	0.679	0.144	0.856
655850	0.425	0.575	0.359	0.641	0.274	0.726	0.162	0.838
655920	0.517	0.483	0.362	0.638	0.349	0.651	0.223	0.777
655940	0.427	0.573	0.319	0.681	0.277	0.723	0.154	0.846
655990	0.349	0.651	0.274	0.726	0.293	0.707	0.112	0.888

2nd-Order Markov Transition Probabilities								
Gauge	Jan							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000
653190	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
653300	0.000	1.000	0.000	1.000	0.333	0.667	0.008	0.992
653350	0.000	1.000	0.000	1.000	0.111	0.889	0.011	0.989
653380	0.000	0.000	0.000	1.000	0.000	1.000	0.018	0.982
653440	0.000	1.000	0.059	0.941	0.138	0.862	0.036	0.964
653520	0.000	0.000	0.000	1.000	0.000	1.000	0.002	0.998
653550	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.998
653570	0.000	1.000	0.000	1.000	0.500	0.500	0.006	0.994
653610	0.000	0.000	0.167	0.833	0.000	1.000	0.011	0.989
653760	0.000	1.000	0.000	1.000	0.000	1.000	0.018	0.982
653800	0.000	0.000	0.143	0.857	0.000	1.000	0.007	0.993
653870	0.000	1.000	0.059	0.941	0.176	0.824	0.019	0.981
654720	0.000	1.000	0.000	1.000	0.125	0.875	0.025	0.975
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.001	0.999
655020	0.000	0.000	0.000	1.000	0.000	1.000	0.001	0.999
655030	0.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000
655050	0.000	0.000	0.000	1.000	0.000	1.000	0.002	0.998
655070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
655100	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
655160	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
655180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
655220	0.000	1.000	0.000	1.000	0.000	1.000	0.011	0.989
655280	0.250	0.750	0.000	1.000	0.111	0.889	0.014	0.986
655360	0.000	1.000	0.000	1.000	0.143	0.857	0.007	0.993
655450	0.000	1.000	0.000	1.000	0.200	0.800	0.016	0.984
655480	0.000	1.000	0.000	1.000	0.222	0.778	0.016	0.984
655550	0.000	1.000	0.111	0.889	0.222	0.778	0.018	0.982
655570	0.286	0.714	0.087	0.913	0.182	0.818	0.038	0.962
655600	0.000	1.000	0.056	0.944	0.000	1.000	0.024	0.976
655620	0.000	1.000	0.167	0.833	0.000	1.000	0.021	0.979
655630	0.000	1.000	0.000	1.000	0.125	0.875	0.023	0.977
655780	0.000	1.000	0.098	0.902	0.282	0.718	0.048	0.952
655850	0.250	0.750	0.179	0.821	0.136	0.864	0.039	0.961
655920	0.227	0.773	0.155	0.845	0.259	0.741	0.089	0.911
655940	0.250	0.750	0.071	0.929	0.167	0.833	0.035	0.965
655990	0.167	0.833	0.000	1.000	0.278	0.722	0.028	0.972

2nd-Order Markov Transition Probabilities								
Gauge	Feb							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.000	0.000	0.000	1.000	0.000	1.000	0.009	0.991
653190	0.000	1.000	0.250	0.750	0.400	0.600	0.007	0.993
653300	0.000	1.000	0.000	1.000	0.200	0.800	0.012	0.988
653350	0.167	0.833	0.000	1.000	0.217	0.783	0.033	0.967
653380	0.000	1.000	0.121	0.879	0.147	0.853	0.048	0.952
653440	0.000	1.000	0.081	0.919	0.159	0.841	0.054	0.946
653520	0.000	0.000	0.333	0.667	0.000	1.000	0.008	0.992
653550	0.000	1.000	0.143	0.857	0.111	0.889	0.026	0.974
653570	0.000	1.000	0.250	0.750	0.200	0.800	0.011	0.989
653610	0.000	0.000	0.000	1.000	0.000	1.000	0.016	0.984
653760	0.000	1.000	0.250	0.750	0.130	0.870	0.042	0.958
653800	0.167	0.833	0.273	0.727	0.227	0.773	0.050	0.950
653870	0.000	1.000	0.074	0.926	0.103	0.897	0.044	0.956
654720	0.000	0.000	0.125	0.875	0.063	0.938	0.052	0.948
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
655020	0.000	0.000	0.000	1.000	0.000	1.000	0.001	0.999
655030	0.000	0.000	0.333	0.667	0.000	1.000	0.004	0.996
655050	0.000	0.000	0.000	1.000	0.000	1.000	0.005	0.995
655070	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655100	0.000	1.000	0.000	1.000	0.167	0.833	0.008	0.992
655160	0.000	0.000	0.000	1.000	0.000	1.000	0.001	0.999
655180	0.000	1.000	0.000	1.000	0.000	1.000	0.007	0.993
655220	0.000	1.000	0.286	0.714	0.000	1.000	0.010	0.990
655280	0.000	1.000	0.000	1.000	0.000	1.000	0.016	0.984
655360	0.000	1.000	0.071	0.929	0.077	0.923	0.029	0.971
655450	0.250	0.750	0.174	0.826	0.240	0.760	0.041	0.959
655480	0.083	0.917	0.135	0.865	0.297	0.703	0.062	0.938
655550	0.000	1.000	0.000	1.000	0.150	0.850	0.039	0.961
655570	0.125	0.875	0.228	0.772	0.233	0.767	0.105	0.895
655600	0.111	0.889	0.111	0.889	0.170	0.830	0.090	0.910
655620	0.000	1.000	0.125	0.875	0.116	0.884	0.076	0.924
655630	0.000	1.000	0.133	0.867	0.091	0.909	0.066	0.934
655780	0.385	0.615	0.167	0.833	0.164	0.836	0.082	0.918
655850	0.000	1.000	0.264	0.736	0.207	0.793	0.108	0.892
655920	0.211	0.789	0.121	0.879	0.220	0.780	0.107	0.893
655940	0.000	1.000	0.042	0.958	0.040	0.960	0.044	0.956
655990	0.000	1.000	0.069	0.931	0.121	0.879	0.069	0.931

2nd-Order Markov Transition Probabilities								
Gauge	Mar							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.000	1.000	0.000	1.000	0.188	0.813	0.020	0.980
653190	0.313	0.688	0.179	0.821	0.216	0.784	0.042	0.958
653300	0.100	0.900	0.167	0.833	0.200	0.800	0.073	0.927
653350	0.174	0.826	0.186	0.814	0.261	0.739	0.107	0.893
653380	0.105	0.895	0.231	0.769	0.170	0.830	0.151	0.849
653440	0.138	0.862	0.155	0.845	0.247	0.753	0.124	0.876
653520	0.000	1.000	0.000	1.000	0.278	0.722	0.038	0.962
653550	0.200	0.800	0.056	0.944	0.063	0.938	0.092	0.908
653570	0.000	1.000	0.105	0.895	0.222	0.778	0.051	0.949
653610	0.000	1.000	0.173	0.827	0.132	0.868	0.087	0.913
653760	0.318	0.682	0.185	0.815	0.141	0.859	0.104	0.896
653800	0.077	0.923	0.173	0.827	0.227	0.773	0.128	0.872
653870	0.050	0.950	0.176	0.824	0.275	0.725	0.094	0.906
654720	0.143	0.857	0.161	0.839	0.129	0.871	0.077	0.923
655010	0.000	1.000	0.000	1.000	0.250	0.750	0.011	0.989
655020	0.000	1.000	0.000	1.000	0.083	0.917	0.019	0.981
655030	0.200	0.800	0.000	1.000	0.211	0.789	0.024	0.976
655050	0.200	0.800	0.067	0.933	0.333	0.667	0.032	0.968
655070	0.500	0.500	0.143	0.857	0.182	0.818	0.028	0.972
655100	0.100	0.900	0.139	0.861	0.263	0.737	0.048	0.952
655160	0.143	0.857	0.050	0.950	0.261	0.739	0.029	0.971
655180	0.111	0.889	0.000	1.000	0.471	0.529	0.044	0.956
655220	0.250	0.750	0.057	0.943	0.265	0.735	0.054	0.946
655280	0.000	1.000	0.152	0.848	0.143	0.857	0.066	0.934
655360	0.000	1.000	0.077	0.923	0.200	0.800	0.079	0.921
655450	0.389	0.611	0.180	0.820	0.179	0.821	0.092	0.908
655480	0.161	0.839	0.253	0.747	0.267	0.733	0.176	0.824
655550	0.250	0.750	0.145	0.855	0.156	0.844	0.134	0.866
655570	0.377	0.623	0.234	0.766	0.359	0.641	0.206	0.794
655600	0.111	0.889	0.242	0.758	0.191	0.809	0.188	0.812
655620	0.286	0.714	0.253	0.747	0.322	0.678	0.160	0.840
655630	0.222	0.778	0.289	0.711	0.288	0.712	0.155	0.845
655780	0.125	0.875	0.140	0.860	0.306	0.694	0.176	0.824
655850	0.216	0.784	0.202	0.798	0.283	0.717	0.198	0.802
655920	0.261	0.739	0.214	0.786	0.203	0.797	0.125	0.875
655940	0.000	1.000	0.074	0.926	0.085	0.915	0.095	0.905
655990	0.500	0.500	0.021	0.979	0.091	0.909	0.089	0.911

2nd-Order Markov Transition Probabilities								
Gauge	Apr							
	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060	0.111	0.889	0.114	0.886	0.200	0.800	0.083	0.917
653190	0.257	0.743	0.287	0.713	0.301	0.699	0.175	0.825
653300	0.053	0.947	0.172	0.828	0.237	0.763	0.143	0.857
653350	0.200	0.800	0.229	0.771	0.307	0.693	0.226	0.774
653380	0.275	0.725	0.242	0.758	0.289	0.711	0.270	0.730
653440	0.227	0.773	0.238	0.762	0.273	0.727	0.217	0.783
653520	0.000	1.000	0.205	0.795	0.122	0.878	0.106	0.894
653550	0.357	0.643	0.281	0.719	0.203	0.797	0.198	0.802
653570	0.375	0.625	0.250	0.750	0.196	0.804	0.167	0.833
653610	0.240	0.760	0.200	0.800	0.211	0.789	0.234	0.766
653760	0.244	0.756	0.237	0.763	0.287	0.713	0.223	0.777
653800	0.100	0.900	0.213	0.787	0.127	0.873	0.233	0.767
653870	0.222	0.778	0.258	0.742	0.323	0.677	0.161	0.839
654720	0.200	0.800	0.125	0.875	0.163	0.837	0.122	0.878
655010	0.000	0.000	0.067	0.933	0.000	1.000	0.019	0.981
655020	0.000	1.000	0.091	0.909	0.048	0.952	0.031	0.969
655030	0.000	1.000	0.063	0.938	0.163	0.837	0.060	0.940
655050	0.111	0.889	0.115	0.885	0.320	0.680	0.061	0.939
655070	0.250	0.750	0.116	0.884	0.163	0.837	0.080	0.920
655100	0.240	0.760	0.148	0.852	0.259	0.741	0.115	0.885
655160	0.308	0.692	0.127	0.873	0.175	0.825	0.098	0.902
655180	0.222	0.778	0.061	0.939	0.242	0.758	0.091	0.909
655220	0.095	0.905	0.172	0.828	0.226	0.774	0.148	0.852
655280	0.385	0.615	0.210	0.790	0.200	0.800	0.184	0.816
655360	0.136	0.864	0.178	0.822	0.226	0.774	0.171	0.829
655450	0.074	0.926	0.200	0.800	0.258	0.742	0.208	0.792
655480	0.194	0.806	0.220	0.780	0.245	0.755	0.262	0.738
655550	0.194	0.806	0.220	0.780	0.267	0.733	0.203	0.797
655570	0.254	0.746	0.333	0.667	0.300	0.700	0.302	0.698
655600	0.182	0.818	0.320	0.680	0.222	0.778	0.220	0.780
655620	0.279	0.721	0.226	0.774	0.239	0.761	0.211	0.789
655630	0.313	0.688	0.267	0.733	0.206	0.794	0.244	0.756
655780	0.359	0.641	0.313	0.687	0.283	0.717	0.227	0.773
655850	0.293	0.707	0.288	0.712	0.290	0.710	0.259	0.741
655920	0.424	0.576	0.248	0.752	0.349	0.651	0.236	0.764
655940	0.318	0.682	0.167	0.833	0.239	0.761	0.162	0.838
655990	0.405	0.595	0.239	0.761	0.244	0.756	0.161	0.839

2nd-Order Markov Transition Probabilities								
Gauge	May							
	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060	0.195	0.805	0.250	0.750	0.256	0.744	0.202	0.798
653190	0.362	0.638	0.292	0.708	0.305	0.695	0.227	0.773
653300	0.270	0.730	0.348	0.652	0.250	0.750	0.304	0.696
653350	0.235	0.765	0.266	0.734	0.289	0.711	0.273	0.727
653380	0.366	0.634	0.244	0.756	0.345	0.655	0.298	0.702
653440	0.365	0.635	0.340	0.660	0.341	0.659	0.359	0.641
653520	0.409	0.591	0.148	0.852	0.242	0.758	0.204	0.796
653550	0.426	0.574	0.333	0.667	0.380	0.620	0.308	0.692
653570	0.241	0.759	0.242	0.758	0.362	0.638	0.222	0.778
653610	0.213	0.787	0.355	0.645	0.347	0.653	0.292	0.708
653760	0.300	0.700	0.229	0.771	0.308	0.692	0.251	0.749
653800	0.242	0.758	0.359	0.641	0.316	0.684	0.210	0.790
653870	0.397	0.603	0.377	0.623	0.287	0.713	0.258	0.742
654720	0.133	0.867	0.281	0.719	0.320	0.680	0.117	0.883
655010	0.083	0.917	0.109	0.891	0.224	0.776	0.071	0.929
655020	0.357	0.643	0.103	0.897	0.153	0.847	0.099	0.901
655030	0.111	0.889	0.175	0.825	0.223	0.777	0.175	0.825
655050	0.250	0.750	0.157	0.843	0.265	0.735	0.140	0.860
655070	0.240	0.760	0.173	0.827	0.202	0.798	0.184	0.816
655100	0.119	0.881	0.277	0.723	0.235	0.765	0.216	0.784
655160	0.216	0.784	0.224	0.776	0.280	0.720	0.188	0.812
655180	0.200	0.800	0.167	0.833	0.234	0.766	0.193	0.807
655220	0.265	0.735	0.241	0.759	0.255	0.745	0.219	0.781
655280	0.212	0.788	0.327	0.673	0.204	0.796	0.221	0.779
655360	0.261	0.739	0.364	0.636	0.256	0.744	0.234	0.766
655450	0.393	0.607	0.333	0.667	0.301	0.699	0.280	0.720
655480	0.431	0.569	0.353	0.647	0.250	0.750	0.275	0.725
655550	0.189	0.811	0.257	0.743	0.288	0.712	0.219	0.781
655570	0.448	0.552	0.473	0.527	0.500	0.500	0.335	0.665
655600	0.200	0.800	0.368	0.632	0.344	0.656	0.312	0.688
655620	0.266	0.734	0.354	0.646	0.400	0.600	0.315	0.685
655630	0.263	0.737	0.371	0.629	0.331	0.669	0.300	0.700
655780	0.522	0.478	0.443	0.557	0.486	0.514	0.375	0.625
655850	0.520	0.480	0.511	0.489	0.458	0.542	0.399	0.601
655920	0.643	0.357	0.516	0.484	0.581	0.419	0.366	0.634
655940	0.570	0.430	0.443	0.557	0.435	0.565	0.296	0.704
655990	0.569	0.431	0.393	0.607	0.500	0.500	0.314	0.686

2nd-Order Markov Transition Probabilities								
Gauge	Jun							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.237	0.763	0.331	0.669	0.315	0.685	0.316	0.684
653190	0.410	0.590	0.359	0.641	0.423	0.577	0.370	0.630
653300	0.343	0.657	0.410	0.590	0.425	0.575	0.344	0.656
653350	0.402	0.598	0.419	0.581	0.486	0.514	0.357	0.643
653380	0.352	0.648	0.360	0.640	0.370	0.630	0.377	0.623
653440	0.547	0.453	0.438	0.562	0.526	0.474	0.419	0.581
653520	0.233	0.767	0.213	0.788	0.294	0.706	0.275	0.725
653550	0.481	0.519	0.344	0.656	0.431	0.569	0.366	0.634
653570	0.190	0.810	0.231	0.769	0.318	0.682	0.304	0.696
653610	0.360	0.640	0.417	0.583	0.432	0.568	0.411	0.589
653760	0.360	0.640	0.355	0.645	0.437	0.563	0.346	0.654
653800	0.310	0.690	0.368	0.632	0.386	0.614	0.287	0.712
653870	0.438	0.562	0.335	0.665	0.403	0.597	0.324	0.676
654720	0.548	0.452	0.311	0.689	0.357	0.643	0.240	0.760
655010	0.111	0.889	0.174	0.826	0.167	0.833	0.173	0.827
655020	0.226	0.774	0.285	0.715	0.191	0.809	0.217	0.783
655030	0.128	0.872	0.252	0.748	0.244	0.756	0.316	0.684
655050	0.188	0.813	0.304	0.696	0.203	0.797	0.239	0.761
655070	0.327	0.673	0.288	0.712	0.282	0.718	0.273	0.727
655100	0.244	0.756	0.333	0.667	0.355	0.645	0.335	0.665
655160	0.216	0.784	0.314	0.686	0.289	0.711	0.318	0.682
655180	0.296	0.704	0.382	0.618	0.244	0.756	0.344	0.656
655220	0.231	0.769	0.328	0.672	0.258	0.742	0.294	0.706
655280	0.175	0.825	0.387	0.613	0.245	0.755	0.329	0.671
655360	0.093	0.907	0.363	0.637	0.317	0.683	0.276	0.724
655450	0.323	0.677	0.326	0.674	0.343	0.657	0.366	0.634
655480	0.413	0.587	0.350	0.650	0.410	0.590	0.365	0.635
655550	0.229	0.771	0.330	0.670	0.311	0.689	0.265	0.735
655570	0.526	0.474	0.492	0.508	0.513	0.487	0.335	0.665
655600	0.405	0.595	0.357	0.643	0.422	0.578	0.325	0.675
655620	0.414	0.586	0.373	0.627	0.416	0.584	0.352	0.648
655630	0.451	0.549	0.270	0.730	0.442	0.558	0.300	0.700
655780	0.574	0.426	0.557	0.443	0.613	0.387	0.384	0.616
655850	0.647	0.353	0.541	0.459	0.689	0.311	0.398	0.602
655920	0.620	0.380	0.545	0.455	0.632	0.368	0.426	0.574
655940	0.582	0.418	0.505	0.495	0.563	0.438	0.451	0.549
655990	0.524	0.476	0.553	0.447	0.600	0.400	0.316	0.684

2nd-Order Markov Transition Probabilities								
Gauge	Jul							
	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060	0.458	0.542	0.411	0.589	0.376	0.624	0.416	0.584
653190	0.483	0.517	0.503	0.497	0.519	0.481	0.464	0.536
653300	0.488	0.512	0.377	0.623	0.538	0.462	0.405	0.595
653350	0.529	0.471	0.314	0.686	0.415	0.585	0.283	0.717
653380	0.370	0.630	0.390	0.610	0.436	0.564	0.294	0.706
653440	0.476	0.524	0.256	0.744	0.392	0.608	0.172	0.828
653520	0.327	0.673	0.346	0.654	0.316	0.684	0.341	0.659
653550	0.500	0.500	0.488	0.512	0.512	0.488	0.488	0.512
653570	0.479	0.521	0.424	0.576	0.325	0.675	0.446	0.554
653610	0.554	0.446	0.525	0.475	0.590	0.410	0.504	0.496
653760	0.586	0.414	0.430	0.570	0.496	0.504	0.338	0.662
653800	0.361	0.639	0.219	0.781	0.328	0.672	0.198	0.802
653870	0.291	0.709	0.168	0.832	0.379	0.621	0.146	0.854
654720	0.417	0.583	0.153	0.847	0.388	0.612	0.116	0.884
655010	0.133	0.867	0.324	0.676	0.167	0.833	0.307	0.693
655020	0.315	0.685	0.322	0.678	0.340	0.660	0.357	0.643
655030	0.301	0.699	0.377	0.623	0.320	0.680	0.443	0.557
655050	0.455	0.545	0.392	0.608	0.255	0.745	0.385	0.615
655070	0.368	0.632	0.362	0.638	0.336	0.664	0.416	0.584
655100	0.346	0.654	0.405	0.595	0.387	0.613	0.408	0.592
655160	0.398	0.602	0.425	0.575	0.342	0.658	0.414	0.586
655180	0.234	0.766	0.322	0.678	0.416	0.584	0.400	0.600
655220	0.402	0.598	0.362	0.638	0.371	0.629	0.440	0.560
655280	0.434	0.566	0.467	0.533	0.500	0.500	0.350	0.650
655360	0.286	0.714	0.281	0.719	0.358	0.642	0.358	0.642
655450	0.320	0.680	0.267	0.733	0.340	0.660	0.194	0.806
655480	0.567	0.433	0.402	0.598	0.600	0.400	0.443	0.557
655550	0.327	0.673	0.233	0.767	0.376	0.624	0.184	0.816
655570	0.474	0.526	0.324	0.676	0.392	0.608	0.179	0.821
655600	0.506	0.494	0.350	0.650	0.430	0.570	0.221	0.779
655620	0.417	0.583	0.300	0.700	0.398	0.602	0.187	0.813
655630	0.341	0.659	0.307	0.693	0.309	0.691	0.170	0.830
655780	0.486	0.514	0.219	0.781	0.442	0.558	0.160	0.840
655850	0.611	0.389	0.400	0.600	0.429	0.571	0.241	0.759
655920	0.570	0.430	0.357	0.643	0.545	0.455	0.232	0.768
655940	0.468	0.532	0.238	0.762	0.461	0.539	0.215	0.785
655990	0.452	0.548	0.282	0.718	0.451	0.549	0.155	0.845

2nd-Order Markov Transition Probabilities								
Gauge	Aug							
	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060	0.487	0.513	0.509	0.491	0.478	0.522	0.442	0.558
653190	0.616	0.384	0.611	0.389	0.532	0.468	0.547	0.453
653300	0.528	0.472	0.485	0.515	0.544	0.456	0.375	0.625
653350	0.510	0.490	0.313	0.687	0.422	0.578	0.288	0.712
653380	0.455	0.545	0.327	0.673	0.443	0.557	0.212	0.788
653440	0.470	0.530	0.231	0.769	0.321	0.679	0.159	0.841
653520	0.269	0.731	0.479	0.521	0.391	0.609	0.301	0.699
653550	0.647	0.353	0.658	0.342	0.532	0.468	0.517	0.483
653570	0.614	0.386	0.425	0.575	0.385	0.615	0.427	0.573
653610	0.602	0.398	0.525	0.475	0.617	0.383	0.443	0.557
653760	0.403	0.597	0.421	0.579	0.487	0.513	0.367	0.633
653800	0.256	0.744	0.291	0.709	0.509	0.491	0.122	0.878
653870	0.341	0.659	0.215	0.785	0.253	0.747	0.139	0.861
654720	0.313	0.688	0.304	0.696	0.220	0.780	0.121	0.879
655010	0.387	0.613	0.375	0.625	0.288	0.712	0.343	0.657
655020	0.515	0.485	0.476	0.524	0.325	0.675	0.435	0.565
655030	0.454	0.546	0.430	0.570	0.432	0.568	0.493	0.507
655050	0.434	0.566	0.467	0.533	0.452	0.548	0.525	0.475
655070	0.514	0.486	0.466	0.534	0.387	0.613	0.530	0.470
655100	0.536	0.464	0.511	0.489	0.506	0.494	0.555	0.445
655160	0.476	0.524	0.541	0.459	0.579	0.421	0.497	0.503
655180	0.538	0.462	0.427	0.573	0.523	0.477	0.593	0.407
655220	0.459	0.541	0.441	0.559	0.449	0.551	0.470	0.530
655280	0.607	0.393	0.574	0.426	0.512	0.488	0.515	0.485
655360	0.423	0.577	0.409	0.591	0.485	0.515	0.418	0.582
655450	0.341	0.659	0.247	0.753	0.353	0.647	0.210	0.790
655480	0.596	0.404	0.553	0.447	0.627	0.373	0.622	0.378
655550	0.367	0.633	0.272	0.728	0.439	0.561	0.247	0.753
655570	0.464	0.536	0.345	0.655	0.434	0.566	0.252	0.748
655600	0.454	0.546	0.500	0.500	0.465	0.535	0.270	0.730
655620	0.407	0.593	0.290	0.710	0.396	0.604	0.202	0.798
655630	0.472	0.528	0.310	0.690	0.341	0.659	0.212	0.788
655780	0.386	0.614	0.207	0.793	0.390	0.610	0.149	0.851
655850	0.477	0.523	0.366	0.634	0.510	0.490	0.239	0.761
655920	0.622	0.378	0.532	0.468	0.598	0.402	0.366	0.634
655940	0.451	0.549	0.337	0.663	0.462	0.538	0.199	0.801
655990	0.586	0.414	0.289	0.711	0.318	0.682	0.191	0.809

Gauge	2nd-Order Markov Transition Probabilities								
	Sep	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060		0.420	0.580	0.477	0.523	0.399	0.601	0.395	0.605
653190		0.626	0.374	0.648	0.352	0.560	0.440	0.478	0.522
653300		0.519	0.481	0.527	0.473	0.549	0.451	0.454	0.546
653350		0.376	0.624	0.406	0.594	0.453	0.547	0.420	0.580
653380		0.450	0.550	0.391	0.609	0.446	0.554	0.298	0.702
653440		0.389	0.611	0.400	0.600	0.452	0.548	0.239	0.761
653520		0.494	0.506	0.434	0.566	0.529	0.471	0.423	0.577
653550		0.627	0.373	0.568	0.432	0.581	0.419	0.510	0.490
653570		0.513	0.487	0.451	0.549	0.459	0.541	0.396	0.604
653610		0.568	0.432	0.492	0.508	0.500	0.500	0.546	0.454
653760		0.375	0.625	0.398	0.602	0.436	0.564	0.330	0.670
653800		0.500	0.500	0.250	0.750	0.310	0.690	0.242	0.758
653870		0.333	0.667	0.272	0.728	0.339	0.661	0.192	0.808
654720		0.250	0.750	0.209	0.791	0.405	0.595	0.125	0.875
655010		0.356	0.644	0.256	0.744	0.250	0.750	0.218	0.782
655020		0.406	0.594	0.277	0.723	0.273	0.727	0.304	0.696
655030		0.348	0.652	0.386	0.614	0.293	0.707	0.323	0.677
655050		0.333	0.667	0.440	0.560	0.280	0.720	0.335	0.665
655070		0.422	0.578	0.381	0.619	0.398	0.602	0.329	0.671
655100		0.396	0.604	0.449	0.551	0.503	0.497	0.475	0.525
655160		0.435	0.565	0.367	0.633	0.441	0.559	0.345	0.655
655180		0.345	0.655	0.487	0.513	0.400	0.600	0.359	0.641
655220		0.514	0.486	0.486	0.514	0.369	0.631	0.465	0.535
655280		0.547	0.453	0.554	0.446	0.431	0.569	0.554	0.446
655360		0.412	0.588	0.436	0.564	0.408	0.592	0.464	0.536
655450		0.505	0.495	0.391	0.609	0.438	0.563	0.395	0.605
655480		0.591	0.409	0.638	0.362	0.538	0.462	0.427	0.573
655550		0.427	0.573	0.363	0.637	0.446	0.554	0.311	0.689
655570		0.542	0.458	0.402	0.598	0.469	0.531	0.332	0.668
655600		0.554	0.446	0.422	0.578	0.433	0.567	0.328	0.672
655620		0.416	0.584	0.330	0.670	0.480	0.520	0.267	0.733
655630		0.471	0.529	0.389	0.611	0.386	0.614	0.284	0.716
655780		0.386	0.614	0.279	0.721	0.394	0.606	0.207	0.793
655850		0.479	0.521	0.469	0.531	0.495	0.505	0.302	0.698
655920		0.685	0.315	0.480	0.520	0.645	0.355	0.452	0.548
655940		0.493	0.507	0.256	0.744	0.423	0.577	0.249	0.751
655990		0.466	0.534	0.253	0.747	0.325	0.675	0.180	0.820

2nd-Order Markov Transition Probabilities								
Gauge	Oct							
	P_{www}	P_{wwd}	P_{wdw}	P_{wdd}	P_{dww}	P_{dwd}	P_{ddw}	P_{ddd}
653060	0.222	0.778	0.214	0.786	0.266	0.734	0.093	0.907
653190	0.464	0.536	0.315	0.685	0.441	0.559	0.204	0.796
653300	0.490	0.510	0.358	0.642	0.379	0.621	0.172	0.828
653350	0.410	0.590	0.418	0.582	0.355	0.645	0.242	0.758
653380	0.370	0.630	0.340	0.660	0.361	0.639	0.259	0.741
653440	0.397	0.603	0.339	0.661	0.376	0.624	0.297	0.703
653520	0.415	0.585	0.233	0.767	0.362	0.638	0.122	0.878
653550	0.507	0.493	0.548	0.452	0.378	0.622	0.233	0.767
653570	0.438	0.563	0.288	0.712	0.387	0.613	0.195	0.805
653610	0.434	0.566	0.421	0.579	0.456	0.544	0.175	0.825
653760	0.300	0.700	0.379	0.621	0.395	0.605	0.224	0.776
653800	0.432	0.568	0.414	0.586	0.260	0.740	0.326	0.674
653870	0.295	0.705	0.221	0.779	0.289	0.711	0.213	0.787
654720	0.310	0.690	0.179	0.821	0.408	0.592	0.181	0.819
655010	0.250	0.750	0.128	0.872	0.158	0.842	0.045	0.955
655020	0.190	0.810	0.225	0.775	0.213	0.787	0.088	0.912
655030	0.160	0.840	0.303	0.697	0.202	0.798	0.088	0.912
655050	0.313	0.688	0.222	0.778	0.193	0.807	0.130	0.870
655070	0.222	0.778	0.178	0.822	0.182	0.818	0.116	0.884
655100	0.259	0.741	0.273	0.727	0.294	0.706	0.148	0.852
655160	0.212	0.788	0.250	0.750	0.244	0.756	0.126	0.874
655180	0.267	0.733	0.178	0.822	0.289	0.711	0.113	0.887
655220	0.241	0.759	0.385	0.615	0.320	0.680	0.190	0.810
655280	0.398	0.602	0.346	0.654	0.407	0.593	0.340	0.660
655360	0.467	0.533	0.355	0.645	0.396	0.604	0.221	0.779
655450	0.416	0.584	0.282	0.718	0.402	0.598	0.255	0.745
655480	0.546	0.454	0.342	0.658	0.404	0.596	0.252	0.748
655550	0.318	0.682	0.276	0.724	0.323	0.677	0.217	0.783
655570	0.363	0.637	0.424	0.576	0.405	0.595	0.423	0.577
655600	0.237	0.763	0.306	0.694	0.378	0.622	0.265	0.735
655620	0.391	0.609	0.328	0.672	0.364	0.636	0.287	0.713
655630	0.369	0.631	0.299	0.701	0.379	0.621	0.313	0.687
655780	0.491	0.509	0.382	0.618	0.532	0.468	0.252	0.748
655850	0.548	0.452	0.480	0.520	0.508	0.492	0.376	0.624
655920	0.575	0.425	0.476	0.524	0.555	0.445	0.337	0.663
655940	0.512	0.488	0.348	0.652	0.410	0.590	0.265	0.735
655990	0.489	0.511	0.422	0.578	0.382	0.618	0.205	0.795

2nd-Order Markov Transition Probabilities								
Gauge	Nov							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.333	0.667	0.167	0.833	0.250	0.750	0.004	0.996
653190	0.500	0.500	0.107	0.893	0.167	0.833	0.018	0.982
653300	0.333	0.667	0.091	0.909	0.250	0.750	0.016	0.984
653350	0.167	0.833	0.125	0.875	0.143	0.857	0.030	0.970
653380	0.389	0.611	0.125	0.875	0.186	0.814	0.058	0.942
653440	0.206	0.794	0.189	0.811	0.302	0.698	0.103	0.897
653520	0.000	1.000	0.063	0.938	0.200	0.800	0.022	0.978
653550	0.364	0.636	0.118	0.882	0.375	0.625	0.040	0.960
653570	0.333	0.667	0.000	1.000	0.182	0.818	0.029	0.971
653610	0.111	0.889	0.276	0.724	0.269	0.731	0.027	0.973
653760	0.000	1.000	0.150	0.850	0.083	0.917	0.051	0.949
653800	0.143	0.857	0.111	0.889	0.208	0.792	0.109	0.891
653870	0.300	0.700	0.161	0.839	0.133	0.867	0.071	0.929
654720	0.250	0.750	0.083	0.917	0.094	0.906	0.086	0.914
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655020	0.000	1.000	0.000	1.000	0.333	0.667	0.004	0.996
655030	0.000	1.000	0.000	1.000	0.154	0.846	0.014	0.986
655050	0.000	1.000	0.091	0.909	0.250	0.750	0.014	0.986
655070	0.000	1.000	0.000	1.000	0.125	0.875	0.011	0.989
655100	0.091	0.909	0.030	0.970	0.333	0.667	0.029	0.971
655160	0.250	0.750	0.000	1.000	0.556	0.444	0.014	0.986
655180	0.250	0.750	0.231	0.769	0.333	0.667	0.021	0.979
655220	0.167	0.833	0.103	0.897	0.130	0.870	0.029	0.971
655280	0.211	0.789	0.167	0.833	0.273	0.727	0.069	0.931
655360	0.231	0.769	0.125	0.875	0.163	0.837	0.059	0.941
655450	0.222	0.778	0.176	0.824	0.227	0.773	0.075	0.925
655480	0.391	0.609	0.152	0.848	0.156	0.844	0.093	0.907
655550	0.250	0.750	0.186	0.814	0.167	0.833	0.051	0.949
655570	0.339	0.661	0.325	0.675	0.313	0.687	0.271	0.729
655600	0.407	0.593	0.155	0.845	0.296	0.704	0.090	0.910
655620	0.263	0.737	0.167	0.833	0.281	0.719	0.101	0.899
655630	0.360	0.640	0.286	0.714	0.258	0.742	0.106	0.894
655780	0.376	0.624	0.371	0.629	0.435	0.565	0.290	0.710
655850	0.484	0.516	0.411	0.589	0.383	0.617	0.328	0.672
655920	0.513	0.487	0.409	0.591	0.521	0.479	0.333	0.667
655940	0.460	0.540	0.391	0.609	0.400	0.600	0.285	0.715
655990	0.359	0.641	0.317	0.683	0.343	0.657	0.257	0.743

2nd-Order Markov Transition Probabilities								
Gauge	Dec							
	P _{www}	P _{wwd}	P _{wdw}	P _{wdd}	P _{dww}	P _{dwd}	P _{ddw}	P _{ddd}
653060	0.000	0.000	0.000	1.000	0.000	1.000	0.001	0.999
653190	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
653300	0.000	0.000	0.000	1.000	0.000	1.000	0.010	0.990
653350	0.000	1.000	0.000	1.000	0.125	0.875	0.010	0.990
653380	0.000	0.000	0.111	0.889	0.000	1.000	0.025	0.975
653440	0.000	1.000	0.053	0.947	0.103	0.897	0.040	0.960
653520	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
653550	0.000	0.000	0.333	0.667	0.000	1.000	0.008	0.992
653570	0.000	0.000	0.167	0.833	0.000	1.000	0.007	0.993
653610	0.333	0.667	0.000	1.000	0.222	0.778	0.014	0.986
653760	0.000	1.000	0.063	0.938	0.000	1.000	0.019	0.981
653800	0.500	0.500	0.143	0.857	0.077	0.923	0.022	0.978
653870	0.000	1.000	0.074	0.926	0.080	0.920	0.030	0.970
654720	0.000	0.000	0.158	0.842	0.000	1.000	0.035	0.965
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.007	0.993
655020	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655030	0.000	1.000	0.000	1.000	0.250	0.750	0.005	0.995
655050	0.000	0.000	0.000	1.000	0.000	1.000	0.006	0.994
655070	0.000	1.000	0.000	1.000	0.500	0.500	0.006	0.994
655100	0.000	0.000	0.000	1.000	0.000	1.000	0.008	0.992
655160	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655180	0.000	1.000	0.000	1.000	0.333	0.667	0.002	0.998
655220	0.000	1.000	0.000	1.000	0.200	0.800	0.007	0.993
655280	0.000	0.000	0.000	1.000	0.200	0.800	0.014	0.986
655360	0.000	1.000	0.000	1.000	0.200	0.800	0.008	0.992
655450	0.000	1.000	0.105	0.895	0.333	0.667	0.025	0.975
655480	0.000	1.000	0.120	0.880	0.208	0.792	0.034	0.966
655550	0.000	1.000	0.043	0.957	0.087	0.913	0.035	0.965
655570	0.286	0.714	0.183	0.817	0.222	0.778	0.087	0.913
655600	0.400	0.600	0.120	0.880	0.080	0.920	0.048	0.952
655620	0.000	1.000	0.219	0.781	0.034	0.966	0.040	0.960
655630	0.000	1.000	0.067	0.933	0.269	0.731	0.048	0.952
655780	0.179	0.821	0.233	0.767	0.393	0.607	0.127	0.873
655850	0.314	0.686	0.284	0.716	0.256	0.744	0.137	0.863
655920	0.333	0.667	0.291	0.709	0.360	0.640	0.199	0.801
655940	0.273	0.727	0.253	0.747	0.279	0.721	0.132	0.868
655990	0.333	0.667	0.246	0.754	0.273	0.727	0.090	0.910

Appendix C: LARS-WG Parameters

These parameters are the wet spell length and wet day amount histograms that LARS-WG calculates from the observed data. These histograms are used in the model to create the synthetic rainfall sequences.

[NAME]

C-2

653060WG

[LAT, LON and ALT]

11.13 2.93 292.00

[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
0.0	0.0	0.0	0.0	69.0	59.0	71.0	65.0	32.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
218.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
49.0	0.0	21.0	43.0	46.0	21.0	11.0	0.0	12.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
366.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
61.0	52.0	65.0	59.0	1.0	9.0	28.0	49.0	22.0	42.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
552.0	122.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
96.0	101.0	102.0	149.0	112.0	37.0	0.0	14.0	16.0	28.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1136.0	264.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
327.0	280.0	255.0	129.0	152.0	161.0	45.0	47.0	22.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1527.0	395.0	108.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
706.0	393.0	277.0	261.0	200.0	158.0	38.0	22.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1488.0	495.0	219.0	49.0	70.0	23.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
871.0	650.0	352.0	224.0	84.0	55.0	16.0	40.0	19.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1523.0	480.0	238.0	118.0	63.0	34.0	15.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1284.0	551.0	279.0	148.0	104.0	40.0	12.0	20.0	14.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1426.0	579.0	203.0	110.0	19.0	40.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
1241.0	494.0	365.0	108.0	117.0	46.0	12.0	0.0	0.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1033.0	188.0	73.0	26.0	0.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
382.0	419.0	301.0	88.0	46.0	31.0	64.0	19.0	16.0	34.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
383.0	161.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	46.0	58.0
154.0	48.0	47.0	55.0	46.0	46.0	113.0	2.0	0.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1188.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
387.0	276.0	89.0	1.0	154.0	60.0	55.0	2.0	2.0	2.0	
[RAIN]										
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
0.0	7.0	16.0	25.0	33.0	23.0	10.0	44.0	59.0	17.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
30.0	92.0	47.0	77.0	34.0	48.0	19.0	38.0	23.0	10.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
183.0	147.0	66.0	138.0	95.0	57.0	38.0	47.0	14.0	19.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
390.0	353.0	253.0	322.0	209.0	127.0	109.0	73.0	28.0	14.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0

518.0	426.0	692.0	723.0	265.0	122.0	48.0	39.0	14.0	14.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
607.0	552.0	952.0	876.0	519.0	183.0	26.0	53.0	0.0	12.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
895.0	646.0	1003.0	696.0	684.0	285.0	34.0	48.0	4.0	15.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
844.0	592.0	1093.0	602.0	494.0	242.0	38.0	39.0	10.0	18.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
428.0	340.0	396.0	257.0	155.0	83.0	41.0	16.0	10.0	4.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
279.0	102.0	41.0	54.0	56.0	49.0	55.0	29.0	27.0	5.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
609.0	115.0	0.0	0.0	0.0	0.0	3.0	164.0	247.0	111.0	

[END]

[NAME]

C-4

653190WG

[LAT, LON and ALT]

10.31 1.38 461.00

[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	118.0	148.0
0.0	0.0	0.0	0.0	22.0	41.0	73.0	56.0	78.0	30.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
135.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
36.0	22.0	20.0	11.0	0.0	25.0	23.0	18.0	10.0	32.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
505.0	90.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
153.0	79.0	61.0	80.0	111.0	47.0	25.0	27.0	23.0	11.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1060.0	268.0	66.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
512.0	260.0	186.0	81.0	138.0	48.0	63.0	53.0	27.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1371.0	329.0	103.0	69.0	0.0	19.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
548.0	383.0	308.0	182.0	74.0	134.0	211.0	27.0	0.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1313.0	474.0	224.0	68.0	58.0	24.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
860.0	451.0	281.0	290.0	104.0	69.0	55.0	5.0	0.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1257.0	690.0	283.0	132.0	59.0	36.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1182.0	620.0	341.0	165.0	121.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
1346.0	661.0	209.0	78.0	148.0	13.0	84.0	0.0	10.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1716.0	508.0	141.0	79.0	69.0	16.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1166.0	520.0	192.0	145.0	103.0	88.0	32.0	57.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1456.0	453.0	299.0	40.0	55.0	2.0	17.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1093.0	430.0	170.0	20.0	3.0	5.0	20.0	2.0	0.0	17.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	37.0	48.0	61.0
676.0	709.0	245.0	76.0	32.0	39.0	15.0	28.0	0.0	36.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
768.0	59.0	6.0	0.0	0.0	0.0	2.0	0.0	0.0	1.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
246.0	104.0	56.0	132.0	53.0	102.0	85.0	53.0	1.0	31.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1565.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
430.0	283.0	310.0	1.0	146.0	131.0	4.0	60.0	0.0	2.0	

[RAIN]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
74.0	51.0	53.0	14.0	13.0	12.0	13.0	43.0	23.0	3.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
198.0	219.0	152.0	86.0	65.0	50.0	21.0	12.0	11.0	1.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
469.0	491.0	399.0	201.0	150.0	90.0	52.0	23.0	7.0	12.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
559.0	465.0	566.0	395.0	336.0	225.0	114.0	35.0	27.0	7.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0

699.0	647.0	367.0	612.0	520.0	310.0	276.0	121.0	50.0	15.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0	
948.0	1071.0	1056.0	719.0	396.0	189.0	72.0	37.0	11.0	3.0		
0.0	1.0	8.0	21.0	40.0	65.0	97.0	136.0	182.0	235.0	295.0	
1290.0	1449.0	1240.0	764.0	257.0	188.0	77.0	39.0	31.0	14.0		
0.0	1.0	6.0	15.0	28.0	45.0	67.0	94.0	126.0	163.0	205.0	
976.0	1167.0	1456.0	835.0	379.0	220.0	116.0	26.0	6.0	6.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0	
612.0	442.0	555.0	534.0	297.0	192.0	191.0	90.0	45.0	18.0		
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0	
228.0	146.0	178.0	161.0	66.0	39.0	33.0	40.0	29.0	14.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
127.0	686.0	610.0	56.0	24.0	27.0	33.0	22.0	12.0	3.0		

[END]

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
248.0 210.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
3.0 76.0 134.0 142.0 80.0 70.0 45.0 31.0 67.0 56.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
237.0 26.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 37.0 52.0 70.0 91.0 115.0
39.0 30.0 83.0 60.0 29.0 22.0 0.0 0.0 1.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
493.0 82.0 10.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
145.0 49.0 85.0 63.0 67.0 22.0 36.0 63.0 29.0 10.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
828.0 172.0 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
250.0 119.0 119.0 101.0 161.0 128.0 57.0 41.0 13.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1479.0 370.0 116.0 36.0 20.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
747.0 448.0 220.0 187.0 130.0 40.0 61.0 92.0 38.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1319.0 610.0 194.0 62.0 19.0 7.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
905.0 502.0 325.0 154.0 174.0 49.0 2.0 0.0 46.0 27.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1089.0 566.0 251.0 146.0 42.0 67.0 11.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
829.0 624.0 240.0 270.0 78.0 64.0 20.0 0.0 4.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1294.0 642.0 252.0 68.0 36.0 19.0 15.0 34.0 16.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 11.0
1189.0 615.0 219.0 198.0 71.0 34.0 52.0 0.0 13.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1294.0 581.0 252.0 82.0 89.0 19.0 73.0 2.0 1.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1403.0 405.0 358.0 102.0 17.0 50.0 13.0 0.0 18.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1117.0 276.0 130.0 26.0 23.0 45.0 15.0 16.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
709.0 404.0 362.0 148.0 12.0 11.0 17.0 10.0 19.0 44.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
482.0 159.0 86.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
200.0 43.0 156.0 72.0 99.0 39.0 24.0 48.0 48.0 28.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
840.0 4.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
71.0 161.0 82.0 1.0 0.0 164.0 55.0 55.0 43.0 4.0
[RAIN]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
196.0 161.0 18.0 2.0 68.0 66.0 15.0 18.0 75.0 7.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
60.0 47.0 44.0 32.0 51.0 33.0 18.0 10.0 4.0 1.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
167.0 142.0 111.0 97.0 68.0 48.0 27.0 18.0 14.0 4.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 117.0 145.0
249.0 199.0 308.0 205.0 113.0 54.0 63.0 28.0 13.0 8.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 91.0 120.0 153.0 190.0
435.0 703.0 834.0 511.0 158.0 91.0 34.0 18.0 13.0 11.0
0.0 1.0 5.0 12.0 23.0 38.0 57.0 80.0 107.0 138.0 173.0

788.0	681.0	921.0	456.0	331.0	194.0	57.0	38.0	13.0	20.0		
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0	
1062.0	714.0	1050.0	437.0	466.0	251.0	89.0	105.0	19.0	25.0		
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0	
1010.0	745.0	1020.0	711.0	439.0	229.0	142.0	62.0	34.0	29.0		
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0	
882.0	751.0	857.0	869.0	639.0	333.0	96.0	88.0	73.0	15.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
571.0	484.0	582.0	480.0	403.0	164.0	67.0	5.0	20.0	40.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
311.0	146.0	214.0	164.0	140.0	30.0	17.0	13.0	19.0	21.0		
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0	
247.0	187.0	43.0	246.0	111.0	22.0	12.0	7.0	3.0	6.0		

[END]

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
411.0 104.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 82.0 103.0
13.0 74.0 106.0 248.0 99.0 73.0 88.0 10.0 22.0 33.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
395.0 111.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
49.0 138.0 141.0 82.0 43.0 31.0 1.0 0.0 0.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
793.0 191.0 68.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
262.0 90.0 160.0 107.0 168.0 57.0 95.0 68.0 23.0 5.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1170.0 316.0 91.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
383.0 315.0 198.0 99.0 185.0 186.0 99.0 81.0 2.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1500.0 350.0 120.0 22.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
508.0 400.0 320.0 292.0 169.0 120.0 34.0 68.0 34.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1270.0 637.0 145.0 78.0 16.0 29.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
848.0 600.0 247.0 199.0 152.0 31.0 0.0 57.0 18.0 21.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1224.0 441.0 213.0 66.0 74.0 22.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
760.0 458.0 202.0 294.0 132.0 46.0 32.0 58.0 36.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 11.0
1217.0 420.0 144.0 137.0 70.0 22.0 0.0 0.0 0.0 28.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
734.0 552.0 284.0 180.0 44.0 4.0 53.0 79.0 47.0 29.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1488.0 597.0 176.0 107.0 17.0 17.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1183.0 503.0 357.0 179.0 126.0 14.0 39.0 1.0 1.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1379.0 414.0 111.0 75.0 18.0 14.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 37.0 48.0 61.0
925.0 648.0 285.0 86.0 51.0 27.0 0.0 11.0 11.0 16.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
681.0 83.0 8.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
135.0 103.0 124.0 93.0 96.0 65.0 25.0 72.0 90.0 23.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
795.0 123.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
94.0 137.0 85.0 107.0 27.0 92.0 77.0 54.0 10.0 1.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
169.0 76.0 125.0 40.0 51.0 91.0 17.0 6.0 6.0 7.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 117.0 145.0
74.0 177.0 106.0 70.0 53.0 77.0 32.0 29.0 11.0 6.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
284.0 232.0 203.0 194.0 128.0 153.0 104.0 41.0 22.0 25.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
338.0 335.0 469.0 357.0 184.0 208.0 107.0 53.0 15.0 19.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
611.0 459.0 413.0 496.0 293.0 196.0 103.0 47.0 34.0 22.0
0.0 1.0 3.0 6.0 11.0 18.0 27.0 38.0 51.0 66.0 83.0

923.0	422.0	415.0	557.0	469.0	282.0	221.0	117.0	79.0	20.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0	
1052.0	594.0	636.0	505.0	300.0	223.0	135.0	60.0	11.0	7.0		
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0	
1034.0	817.0	861.0	587.0	241.0	99.0	64.0	18.0	25.0	13.0		
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0	
950.0	965.0	1031.0	501.0	264.0	93.0	55.0	13.0	16.0	10.0		
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0	
500.0	650.0	626.0	490.0	396.0	201.0	84.0	40.0	10.0	4.0		
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0	
118.0	152.0	109.0	124.0	138.0	94.0	54.0	35.0	16.0	4.0		
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0	
213.0	81.0	26.0	42.0	161.0	130.0	147.0	167.0	86.0	13.0		

[END]

[NAME]

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
653.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
69.0	94.0	121.0	194.0	130.0	119.0	58.0	51.0	36.0	27.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
450.0	68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
43.0	31.0	109.0	57.0	79.0	82.0	51.0	33.0	14.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
990.0	213.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
245.0	234.0	170.0	82.0	195.0	76.0	115.0	45.0	19.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1346.0	341.0	65.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
490.0	316.0	225.0	261.0	127.0	100.0	88.0	74.0	0.0	57.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1383.0	438.0	95.0	53.0	15.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
573.0	423.0	336.0	220.0	174.0	67.0	57.0	84.0	16.0	33.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1495.0	528.0	160.0	45.0	0.0	0.0	0.0	12.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
808.0	637.0	289.0	174.0	146.0	39.0	26.0	67.0	15.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1498.0	511.0	182.0	49.0	52.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
932.0	564.0	348.0	111.0	169.0	71.0	21.0	38.0	14.0	29.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
996.0	534.0	185.0	91.0	43.0	23.0	0.0	20.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
674.0	318.0	305.0	211.0	117.0	81.0	65.0	66.0	29.0	20.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1276.0	584.0	157.0	36.0	61.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
883.0	515.0	275.0	82.0	102.0	101.0	77.0	48.0	14.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1276.0	358.0	163.0	67.0	16.0	16.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
629.0	548.0	230.0	86.0	142.0	76.0	133.0	8.0	39.0	44.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
732.0	87.0	70.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
116.0	86.0	102.0	252.0	62.0	108.0	161.0	20.0	18.0	10.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1219.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
165.0	146.0	226.0	89.0	68.0	185.0	96.0	31.0	3.0	1.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
177.0	123.0	100.0	85.0	46.0	41.0	14.0	14.0	14.0	15.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
107.0	83.0	57.0	146.0	76.0	36.0	45.0	16.0	15.0	7.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
368.0	200.0	241.0	250.0	155.0	144.0	80.0	18.0	17.0	16.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
522.0	333.0	393.0	343.0	254.0	248.0	121.0	50.0	12.0	18.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
485.0	535.0	413.0	464.0	362.0	349.0	102.0	38.0	40.0	43.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0

788.0	522.0	579.0	446.0	457.0	277.0	123.0	30.0	55.0	21.0		
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0	
1072.0	429.0	621.0	406.0	392.0	156.0	199.0	124.0	82.0	42.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
1008.0	577.0	540.0	449.0	273.0	229.0	154.0	109.0	67.0	14.0		
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0	
1107.0	367.0	301.0	473.0	349.0	350.0	202.0	148.0	100.0	40.0		
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0	
791.0	361.0	454.0	518.0	370.0	208.0	127.0	53.0	24.0	8.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0	
363.0	222.0	158.0	140.0	77.0	61.0	46.0	30.0	29.0	13.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0	
215.0	276.0	285.0	191.0	118.0	43.0	35.0	46.0	22.0	13.0		

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
536.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
39.0	90.0	115.0	88.0	145.0	162.0	69.0	89.0	0.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
313.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
39.0	89.0	23.0	101.0	60.0	50.0	25.0	0.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
759.0	193.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
171.0	139.0	87.0	110.0	180.0	139.0	75.0	40.0	9.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1192.0	293.0	55.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
372.0	324.0	218.0	207.0	107.0	123.0	46.0	107.0	33.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1608.0	423.0	71.0	49.0	29.0	0.0	15.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
598.0	646.0	523.0	158.0	73.0	64.0	36.0	35.0	39.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
998.0	592.0	259.0	79.0	75.0	64.0	1.0	0.0	43.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
941.0	553.0	253.0	90.0	78.0	112.0	14.0	0.0	0.0	11.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
893.0	416.0	127.0	69.0	43.0	18.0	0.0	0.0	2.0	17.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
467.0	297.0	335.0	154.0	137.0	73.0	119.0	9.0	25.0	36.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1295.0	179.0	132.0	42.0	13.0	1.0	0.0	0.0	17.0	1.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
548.0	387.0	196.0	140.0	128.0	122.0	39.0	65.0	31.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1181.0	493.0	245.0	18.0	1.0	0.0	0.0	0.0	14.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
744.0	395.0	366.0	107.0	135.0	59.0	48.0	43.0	27.0	6.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1247.0	451.0	169.0	11.0	19.0	14.0	40.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
813.0	381.0	233.0	221.0	203.0	47.0	47.0	0.0	8.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
766.0	247.0	46.0	0.0	1.0	1.0	2.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
186.0	176.0	169.0	162.0	195.0	89.0	92.0	1.0	23.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
952.0	217.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
352.0	149.0	170.0	5.0	77.0	116.0	5.0	52.0	29.0	4.0	

[RAIN]

0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
241.0	88.0	66.0	52.0	45.0	43.0	23.0	16.0	3.0	9.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	101.0
113.0	61.0	61.0	53.0	35.0	34.0	50.0	33.0	22.0	18.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0	235.0
321.0	240.0	274.0	194.0	88.0	38.0	36.0	15.0	5.0	9.0	
0.0	1.0	8.0	22.0	43.0	71.0	106.0	148.0	197.0	253.0	316.0
335.0	560.0	516.0	344.0	172.0	51.0	60.0	29.0	18.0	18.0	
0.0	1.0	6.0	15.0	29.0	48.0	72.0	101.0	135.0	174.0	218.0
602.0	585.0	656.0	435.0	320.0	233.0	165.0	86.0	25.0	12.0	
0.0	1.0	8.0	21.0	41.0	68.0	102.0	143.0	191.0	246.0	308.0

1084.0	1031.0	902.0	536.0	372.0	182.0	117.0	60.0	29.0	21.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	121.0	156.0	196.0
910.0	708.0	582.0	288.0	182.0	100.0	60.0	63.0	29.0	12.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0
987.0	413.0	389.0	247.0	161.0	98.0	63.0	48.0	36.0	30.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
1004.0	543.0	397.0	396.0	322.0	177.0	59.0	108.0	89.0	16.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
786.0	547.0	622.0	421.0	406.0	187.0	82.0	48.0	74.0	11.0	
0.0	1.0	6.0	15.0	29.0	48.0	72.0	101.0	135.0	174.0	218.0
360.0	350.0	318.0	207.0	89.0	48.0	17.0	13.0	3.0	3.0	
0.0	1.0	9.0	24.0	47.0	78.0	117.0	164.0	219.0	282.0	353.0
553.0	309.0	202.0	144.0	81.0	35.0	14.0	16.0	21.0	17.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
849.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
133.0	194.0	284.0	169.0	80.0	24.0	72.0	58.0	18.0	28.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
509.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
100.0	106.0	89.0	80.0	60.0	53.0	15.0	3.0	3.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
915.0	184.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
199.0	125.0	168.0	169.0	118.0	117.0	98.0	54.0	21.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1537.0	105.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
510.0	221.0	248.0	189.0	163.0	81.0	59.0	105.0	22.0	33.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1656.0	307.0	129.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
616.0	580.0	263.0	269.0	209.0	48.0	43.0	3.0	21.0	23.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1785.0	391.0	127.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
986.0	548.0	279.0	233.0	102.0	127.0	34.0	10.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
2197.0	462.0	115.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1328.0	697.0	437.0	109.0	96.0	2.0	32.0	47.0	19.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1895.0	725.0	133.0	19.0	0.0	0.0	24.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1593.0	541.0	300.0	182.0	117.0	0.0	1.0	21.0	2.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1446.0	626.0	343.0	58.0	0.0	26.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1349.0	587.0	187.0	206.0	75.0	72.0	24.0	0.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1074.0	335.0	49.0	143.0	30.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
605.0	522.0	323.0	44.0	19.0	70.0	39.0	0.0	28.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1027.0	146.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
500.0	207.0	176.0	163.0	56.0	31.0	69.0	0.0	0.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1721.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
684.0	337.0	172.0	153.0	93.0	25.0	37.0	24.0	8.0	5.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
105.0	0.0	0.0	0.0	8.0	74.0	32.0	14.0	63.0	508.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
145.0	34.0	49.0	97.0	81.0	64.0	36.0	5.0	7.0	8.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
310.0	297.0	201.0	193.0	89.0	74.0	57.0	39.0	27.0	15.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
400.0	383.0	266.0	238.0	223.0	126.0	63.0	32.0	11.0	6.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
606.0	438.0	482.0	392.0	281.0	243.0	141.0	49.0	30.0	9.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0

656.0	464.0	770.0	560.0	274.0	164.0	75.0	60.0	51.0	18.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0	
755.0	425.0	826.0	600.0	409.0	258.0	113.0	62.0	31.0	10.0		
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0	
729.0	524.0	634.0	810.0	509.0	326.0	223.0	108.0	89.0	22.0		
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0	
810.0	619.0	432.0	716.0	423.0	375.0	348.0	207.0	136.0	27.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
580.0	390.0	341.0	488.0	350.0	212.0	134.0	58.0	15.0	10.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	93.0	120.0	151.0	
316.0	303.0	148.0	193.0	174.0	39.0	22.0	26.0	82.0	50.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
117.0	153.0	148.0	170.0	65.0	0.0	408.0	607.0	51.0	32.0		

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
923.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
134.0	310.0	270.0	152.0	118.0	0.0	61.0	47.0	0.0	33.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
670.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
154.0	190.0	146.0	71.0	31.0	47.0	20.0	4.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1022.0	75.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
240.0	176.0	143.0	189.0	206.0	98.0	35.0	26.0	1.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1500.0	139.0	26.0	28.0	84.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
440.0	288.0	363.0	255.0	96.0	57.0	131.0	46.0	49.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1584.0	496.0	177.0	107.0	3.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1056.0	477.0	360.0	208.0	93.0	30.0	36.0	50.0	27.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1497.0	633.0	83.0	147.0	69.0	0.0	29.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1289.0	464.0	417.0	123.0	51.0	35.0	42.0	3.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1545.0	647.0	223.0	164.0	3.0	0.0	2.0	36.0	0.0	30.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1472.0	722.0	203.0	160.0	71.0	0.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1467.0	612.0	208.0	116.0	114.0	46.0	25.0	29.0	0.0	28.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1732.0	588.0	216.0	110.0	2.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1201.0	493.0	378.0	183.0	89.0	101.0	32.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1617.0	600.0	182.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1431.0	477.0	139.0	64.0	26.0	46.0	24.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
1305.0	668.0	137.0	66.0	46.0	16.0	0.0	15.0	0.0	25.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
941.0	260.0	67.0	3.0	1.0	1.0	3.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
513.0	262.0	102.0	101.0	54.0	132.0	41.0	31.0	61.0	34.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1754.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
726.0	245.0	209.0	212.0	34.0	89.0	24.0	33.0	11.0	1.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
231.0	68.0	46.0	98.0	135.0	1.0	103.0	145.0	29.0	10.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
218.0	82.0	107.0	93.0	21.0	33.0	39.0	29.0	22.0	39.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
377.0	244.0	182.0	176.0	156.0	102.0	33.0	22.0	20.0	11.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
677.0	366.0	309.0	278.0	254.0	205.0	138.0	74.0	43.0	14.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
909.0	432.0	614.0	768.0	474.0	222.0	107.0	36.0	14.0	4.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0

1009.0	699.0	736.0	767.0	431.0	223.0	107.0	68.0	49.0	23.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	92.0	123.0	159.0	200.0	
1100.0	1204.0	873.0	583.0	383.0	281.0	189.0	82.0	37.0	9.0		
0.0	1.0	9.0	24.0	47.0	78.0	117.0	164.0	219.0	282.0	353.0	
1132.0	1579.0	1362.0	816.0	191.0	62.0	77.0	27.0	17.0	13.0		
0.0	1.0	8.0	21.0	40.0	65.0	96.0	133.0	176.0	225.0	280.0	
914.0	1503.0	1663.0	869.0	264.0	92.0	35.0	22.0	11.0	7.0		
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0	
837.0	627.0	615.0	730.0	469.0	201.0	136.0	35.0	11.0	6.0		
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0	
316.0	244.0	147.0	159.0	283.0	127.0	112.0	154.0	123.0	41.0		
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0	
693.0	82.0	52.0	87.0	289.0	137.0	72.0	215.0	168.0	16.0		

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1126.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
200.0	273.0	276.0	230.0	119.0	80.0	44.0	48.0	48.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
717.0	146.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
113.0	202.0	177.0	153.0	80.0	16.0	79.0	1.0	18.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1304.0	252.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
576.0	285.0	292.0	116.0	108.0	93.0	58.0	13.0	0.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1746.0	129.0	166.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
850.0	349.0	317.0	194.0	63.0	24.0	44.0	84.0	26.0	65.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1571.0	430.0	112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
675.0	468.0	332.0	239.0	102.0	185.0	79.0	0.0	0.0	20.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1957.0	410.0	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
989.0	465.0	433.0	284.0	140.0	7.0	95.0	1.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
2140.0	580.0	93.0	56.0	23.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1542.0	715.0	394.0	93.0	46.0	67.0	3.0	1.0	16.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1756.0	520.0	128.0	45.0	61.0	26.0	21.0	0.0	28.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1327.0	612.0	261.0	180.0	127.0	31.0	19.0	0.0	1.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1749.0	415.0	242.0	91.0	56.0	1.0	23.0	0.0	2.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1496.0	576.0	187.0	131.0	97.0	13.0	20.0	0.0	33.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1393.0	415.0	110.0	29.0	36.0	0.0	23.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
953.0	673.0	173.0	229.0	0.0	0.0	0.0	18.0	16.0	25.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1026.0	15.0	78.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
381.0	159.0	157.0	85.0	156.0	107.0	62.0	13.0	15.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1426.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
518.0	198.0	138.0	50.0	85.0	0.0	132.0	62.0	25.0	29.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
96.0	140.0	0.0	97.0	190.0	80.0	157.0	92.0	137.0	102.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
356.0	88.0	107.0	136.0	136.0	78.0	64.0	36.0	6.0	6.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0
371.0	537.0	515.0	154.0	77.0	74.0	37.0	24.0	21.0	24.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	121.0	156.0	196.0
368.0	814.0	777.0	287.0	133.0	52.0	15.0	13.0	24.0	38.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
360.0	514.0	824.0	436.0	254.0	118.0	55.0	67.0	108.0	21.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0

294.0	359.0	755.0	678.0	462.0	187.0	123.0	41.0	36.0	35.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
731.0	714.0	634.0	687.0	542.0	255.0	205.0	84.0	38.0	27.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
911.0	810.0	1012.0	627.0	442.0	182.0	77.0	42.0	22.0	17.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
686.0	1033.0	1287.0	662.0	393.0	61.0	31.0	13.0	19.0	7.0	
0.0	1.0	8.0	21.0	40.0	65.0	96.0	133.0	176.0	225.0	280.0
388.0	1217.0	846.0	385.0	88.0	29.0	18.0	14.0	6.0	9.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
177.0	355.0	369.0	164.0	148.0	30.0	14.0	9.0	7.0	7.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
80.0	277.0	30.0	216.0	150.0	249.0	224.0	144.0	72.0	29.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
893.0	27.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	82.0	103.0
118.0	365.0	263.0	148.0	82.0	44.0	34.0	49.0	0.0	24.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
719.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
132.0	122.0	221.0	135.0	50.0	47.0	1.0	2.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1024.0	177.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
251.0	139.0	209.0	149.0	127.0	154.0	68.0	46.0	25.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1463.0	313.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
449.0	452.0	355.0	199.0	197.0	28.0	32.0	47.0	9.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1405.0	682.0	139.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
922.0	498.0	308.0	133.0	159.0	58.0	60.0	54.0	28.0	7.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1493.0	710.0	150.0	22.0	44.0	19.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1221.0	585.0	257.0	159.0	44.0	41.0	57.0	47.0	2.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1073.0	674.0	336.0	127.0	99.0	59.0	24.0	22.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1423.0	507.0	224.0	92.0	66.0	2.0	42.0	15.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1143.0	653.0	157.0	239.0	105.0	70.0	35.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1407.0	580.0	236.0	116.0	57.0	17.0	17.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1243.0	493.0	295.0	148.0	57.0	67.0	61.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1242.0	714.0	173.0	140.0	45.0	29.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1204.0	350.0	177.0	69.0	39.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
841.0	476.0	208.0	169.0	83.0	104.0	0.0	14.0	0.0	40.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1273.0	128.0	5.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
550.0	252.0	221.0	34.0	142.0	20.0	82.0	81.0	28.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1163.0	294.0	292.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
698.0	283.0	310.0	147.0	52.0	66.0	28.0	24.0	6.0	1.0	
[RAIN]										
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
185.0	101.0	52.0	3.0	39.0	45.0	101.0	136.0	215.0	37.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
109.0	77.0	20.0	2.0	86.0	91.0	134.0	166.0	38.0	2.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
367.0	260.0	120.0	137.0	130.0	135.0	145.0	65.0	30.0	8.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
547.0	523.0	517.0	235.0	147.0	82.0	61.0	38.0	26.0	5.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
784.0	654.0	896.0	495.0	254.0	82.0	54.0	42.0	33.0	32.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0

734.0	685.0	689.0	757.0	439.0	222.0	132.0	79.0	42.0	11.0		
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0	
1112.0	988.0	915.0	686.0	544.0	460.0	181.0	83.0	49.0	10.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0	
1052.0	1131.0	1119.0	628.0	637.0	314.0	126.0	38.0	36.0	11.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0	
1004.0	796.0	773.0	752.0	667.0	414.0	204.0	133.0	50.0	9.0		
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0	
586.0	400.0	780.0	450.0	441.0	182.0	70.0	38.0	18.0	10.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0	
375.0	328.0	365.0	143.0	146.0	73.0	59.0	42.0	24.0	19.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
742.0	609.0	844.0	274.0	110.0	68.0	51.0	31.0	26.0	9.0		

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
831.0 127.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
139.0 219.0 261.0 288.0 99.0 18.0 56.0 11.0 36.0 34.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
626.0 119.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
109.0 179.0 228.0 118.0 90.0 19.0 1.0 0.0 1.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1079.0 96.0 70.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
295.0 125.0 180.0 155.0 97.0 71.0 89.0 110.0 60.0 37.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1314.0 302.0 66.0 0.0 26.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
451.0 357.0 257.0 165.0 158.0 103.0 129.0 25.0 31.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1645.0 341.0 102.0 19.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
640.0 676.0 201.0 160.0 125.0 80.0 130.0 97.0 1.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1684.0 512.0 128.0 38.0 19.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 11.0
976.0 534.0 426.0 183.0 67.0 34.0 26.0 55.0 23.0 4.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1308.0 483.0 215.0 83.0 139.0 35.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1029.0 525.0 288.0 182.0 102.0 47.0 33.0 36.0 15.0 10.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1552.0 652.0 127.0 84.0 68.0 3.0 0.0 13.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1244.0 575.0 335.0 91.0 165.0 15.0 12.0 27.0 2.0 15.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1391.0 698.0 137.0 44.0 35.0 23.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 11.0
1183.0 498.0 262.0 84.0 150.0 73.0 13.0 13.0 23.0 45.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1384.0 468.0 155.0 0.0 23.0 1.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
892.0 692.0 250.0 117.0 31.0 20.0 33.0 13.0 0.0 10.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1142.0 154.0 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
454.0 410.0 144.0 135.0 50.0 42.0 63.0 41.0 0.0 8.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1718.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
683.0 411.0 153.0 39.0 70.0 88.0 50.0 31.0 9.0 2.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 37.0 48.0 61.0
171.0 219.0 182.0 218.0 112.0 58.0 31.0 14.0 14.0 17.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 46.0 58.0
196.0 205.0 124.0 156.0 105.0 55.0 23.0 5.0 7.0 1.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 50.0 67.0 87.0 110.0
340.0 262.0 292.0 212.0 183.0 91.0 42.0 29.0 23.0 15.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 92.0 123.0 159.0 200.0
427.0 576.0 450.0 321.0 201.0 139.0 83.0 33.0 24.0 12.0
0.0 1.0 9.0 24.0 47.0 78.0 117.0 164.0 219.0 282.0 353.0
444.0 897.0 655.0 333.0 167.0 78.0 45.0 40.0 35.0 26.0
0.0 1.0 7.0 18.0 34.0 55.0 81.0 113.0 151.0 195.0 245.0

581.0	870.0	836.0	435.0	293.0	138.0	101.0	36.0	27.0	23.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	101.0
931.0	739.0	672.0	640.0	430.0	261.0	195.0	112.0	55.0	75.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
914.0	593.0	523.0	672.0	432.0	389.0	230.0	120.0	94.0	55.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
647.0	566.0	572.0	673.0	499.0	305.0	201.0	131.0	83.0	46.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
604.0	466.0	281.0	479.0	340.0	210.0	224.0	116.0	89.0	96.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
464.0	223.0	123.0	289.0	115.0	117.0	57.0	26.0	36.0	8.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
332.0	315.0	406.0	180.0	154.0	151.0	94.0	35.0	32.0	48.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1125.0	3.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
242.0	310.0	240.0	167.0	162.0	65.0	83.0	35.0	11.0	37.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1125.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
355.0	253.0	204.0	159.0	103.0	68.0	16.0	15.0	5.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1356.0	328.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
443.0	357.0	198.0	210.0	195.0	209.0	42.0	18.0	0.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
2002.0	232.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
763.0	528.0	302.0	267.0	124.0	37.0	173.0	7.0	13.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1628.0	479.0	159.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
974.0	377.0	262.0	217.0	204.0	76.0	39.0	74.0	15.0	28.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1548.0	702.0	116.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1248.0	443.0	287.0	173.0	77.0	69.0	23.0	29.0	49.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1525.0	419.0	219.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
803.0	470.0	334.0	283.0	114.0	100.0	46.0	48.0	0.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1028.0	683.0	191.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
801.0	462.0	286.0	89.0	99.0	145.0	59.0	0.0	18.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1210.0	367.0	140.0	41.0	38.0	29.0	0.0	21.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
558.0	457.0	314.0	153.0	136.0	112.0	62.0	25.0	14.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1973.0	410.0	70.0	81.0	2.0	29.0	23.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
1446.0	498.0	216.0	215.0	107.0	1.0	18.0	90.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1670.0	217.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
769.0	333.0	265.0	88.0	50.0	85.0	62.0	104.0	112.0	96.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1552.0	117.0	110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
617.0	242.0	306.0	108.0	73.0	123.0	75.0	39.0	19.0	7.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
174.0	166.0	185.0	181.0	177.0	108.0	64.0	26.0	25.0	11.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
257.0	90.0	226.0	248.0	175.0	154.0	58.0	27.0	24.0	15.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
293.0	333.0	374.0	207.0	391.0	187.0	233.0	75.0	7.0	22.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
446.0	481.0	409.0	219.0	364.0	132.0	274.0	104.0	15.0	38.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
745.0	516.0	456.0	516.0	343.0	266.0	141.0	53.0	20.0	4.0	
0.0	1.0	7.0	18.0	35.0	58.0	87.0	122.0	163.0	210.0	263.0

884.0	959.0	712.0	443.0	215.0	132.0	81.0	51.0	34.0	24.0		
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0	
1113.0	649.0	525.0	324.0	216.0	117.0	112.0	41.0	21.0	16.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
1350.0	761.0	344.0	365.0	156.0	87.0	50.0	70.0	71.0	13.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	82.0	103.0	
995.0	604.0	497.0	359.0	218.0	160.0	103.0	29.0	45.0	20.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0	
871.0	795.0	604.0	629.0	396.0	209.0	115.0	67.0	33.0	6.0		
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0	
740.0	300.0	201.0	237.0	222.0	186.0	128.0	99.0	76.0	19.0		
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0	
611.0	228.0	274.0	214.0	235.0	244.0	134.0	46.0	106.0	51.0		

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
572.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
103.0	99.0	164.0	140.0	121.0	47.0	80.0	73.0	35.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
478.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
58.0	118.0	71.0	114.0	70.0	26.0	6.0	22.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
757.0	249.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
168.0	121.0	56.0	124.0	50.0	142.0	157.0	99.0	17.0	54.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
877.0	356.0	54.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
304.0	80.0	160.0	138.0	135.0	145.0	199.0	73.0	28.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1291.0	393.0	139.0	50.0	55.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
697.0	400.0	269.0	189.0	82.0	102.0	105.0	39.0	21.0	6.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1350.0	391.0	157.0	57.0	20.0	0.0	13.0	13.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
686.0	429.0	295.0	211.0	104.0	135.0	58.0	16.0	0.0	30.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1034.0	450.0	63.0	2.0	16.0	22.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
396.0	346.0	245.0	121.0	219.0	146.0	77.0	10.0	78.0	11.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1178.0	148.0	156.0	29.0	1.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
421.0	303.0	203.0	172.0	143.0	129.0	87.0	30.0	13.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1067.0	400.0	159.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
598.0	276.0	185.0	276.0	92.0	131.0	50.0	8.0	2.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1262.0	271.0	141.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
496.0	392.0	307.0	248.0	155.0	57.0	0.0	32.0	0.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
985.0	153.0	46.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
321.0	153.0	211.0	237.0	109.0	65.0	20.0	55.0	18.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1375.0	148.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
577.0	137.0	236.0	113.0	4.0	95.0	136.0	21.0	17.0	10.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	46.0	58.0
193.0	133.0	111.0	102.0	62.0	18.0	22.0	19.0	13.0	4.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
122.0	123.0	131.0	47.0	37.0	16.0	22.0	17.0	10.0	13.0	
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0
307.0	282.0	270.0	152.0	95.0	97.0	41.0	22.0	3.0	2.0	
0.0	1.0	9.0	25.0	49.0	81.0	121.0	169.0	225.0	289.0	361.0
510.0	516.0	351.0	244.0	69.0	66.0	21.0	10.0	15.0	8.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0	235.0
727.0	739.0	692.0	362.0	228.0	136.0	67.0	31.0	12.0	7.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0

706.0	608.0	508.0	448.0	283.0	273.0	124.0	67.0	58.0	6.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
785.0	508.0	238.0	295.0	117.0	150.0	143.0	52.0	23.0	51.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
952.0	489.0	205.0	172.0	76.0	62.0	54.0	29.0	12.0	21.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
887.0	565.0	462.0	222.0	121.0	80.0	62.0	28.0	5.0	12.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
689.0	391.0	451.0	323.0	203.0	128.0	57.0	38.0	9.0	9.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
423.0	204.0	134.0	166.0	273.0	151.0	28.0	26.0	22.0	8.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
499.0	239.0	148.0	349.0	190.0	112.0	42.0	47.0	54.0	25.0	

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
864.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
198.0	154.0	41.0	55.0	137.0	86.0	143.0	119.0	130.0	35.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1142.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
353.0	200.0	128.0	83.0	122.0	80.0	51.0	45.0	33.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1395.0	131.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
619.0	207.0	196.0	111.0	71.0	139.0	101.0	20.0	39.0	7.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1485.0	267.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
705.0	328.0	236.0	127.0	152.0	138.0	9.0	24.0	23.0	29.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1554.0	353.0	0.0	29.0	0.0	0.0	0.0	44.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
946.0	225.0	314.0	90.0	107.0	118.0	86.0	49.0	32.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1550.0	239.0	136.0	65.0	32.0	0.0	22.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
929.0	375.0	210.0	193.0	48.0	65.0	111.0	95.0	1.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1049.0	343.0	53.0	118.0	37.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
459.0	333.0	262.0	77.0	195.0	135.0	85.0	38.0	40.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1436.0	170.0	108.0	41.0	2.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
782.0	235.0	170.0	163.0	155.0	147.0	63.0	0.0	0.0	39.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1221.0	446.0	91.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
823.0	325.0	174.0	160.0	152.0	77.0	56.0	13.0	0.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1375.0	394.0	86.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
771.0	387.0	139.0	190.0	264.0	90.0	33.0	0.0	0.0	31.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1395.0	115.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
460.0	250.0	141.0	199.0	250.0	126.0	73.0	12.0	24.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1763.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
641.0	232.0	217.0	99.0	116.0	139.0	97.0	17.0	0.0	5.0	

[RAIN]

0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
109.0	152.0	117.0	138.0	77.0	42.0	47.0	47.0	33.0	85.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
281.0	186.0	125.0	172.0	85.0	39.0	37.0	32.0	86.0	107.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
270.0	320.0	255.0	119.0	148.0	232.0	161.0	105.0	36.0	18.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
243.0	487.0	424.0	161.0	151.0	212.0	187.0	133.0	136.0	42.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
375.0	294.0	421.0	410.0	373.0	348.0	182.0	141.0	115.0	39.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	118.0	148.0

947.0	396.0	558.0	370.0	327.0	218.0	127.0	42.0	28.0	15.0		
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0	
1067.0	418.0	503.0	185.0	147.0	119.0	60.0	35.0	13.0	12.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	71.0	95.0	123.0	155.0	
1372.0	382.0	228.0	137.0	77.0	37.0	15.0	14.0	12.0	9.0		
0.0	1.0	7.0	18.0	34.0	56.0	84.0	118.0	158.0	204.0	256.0	
1168.0	649.0	440.0	143.0	84.0	59.0	0.0	1.0	15.0	16.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	92.0	123.0	159.0	200.0	
785.0	664.0	543.0	271.0	167.0	78.0	16.0	19.0	10.0	7.0		
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0	
487.0	137.0	302.0	323.0	177.0	115.0	49.0	30.0	14.0	7.0		
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0	
217.0	218.0	311.0	281.0	167.0	190.0	163.0	101.0	10.0	103.0		

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
746.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 6.0 15.0 29.0 48.0 72.0 101.0 135.0 174.0 218.0
131.0 278.0 274.0 88.0 42.0 65.0 28.0 22.0 20.0 12.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
367.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
59.0 79.0 68.0 70.0 39.0 0.0 0.0 15.0 29.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
239.0 160.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 11.0 18.0 27.0 38.0 51.0 66.0 83.0
45.0 97.0 64.0 42.0 44.0 15.0 34.0 19.0 11.0 27.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
456.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 37.0 48.0 61.0
72.0 63.0 90.0 98.0 40.0 15.0 17.0 25.0 31.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
669.0 179.0 21.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
245.0 141.0 117.0 117.0 115.0 34.0 18.0 34.0 20.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1217.0 263.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
409.0 297.0 158.0 293.0 162.0 74.0 37.0 30.0 6.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1896.0 260.0 61.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
821.0 470.0 362.0 237.0 141.0 75.0 38.0 26.0 28.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1877.0 369.0 181.0 37.0 18.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
1149.0 626.0 305.0 105.0 110.0 73.0 56.0 0.0 1.0 21.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1368.0 219.0 124.0 47.0 41.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
574.0 743.0 266.0 177.0 32.0 41.0 1.0 0.0 0.0 13.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1015.0 101.0 44.0 2.0 1.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
316.0 188.0 221.0 220.0 76.0 53.0 63.0 14.0 0.0 42.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
960.0 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
264.0 101.0 181.0 141.0 69.0 5.0 38.0 1.0 111.0 57.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1666.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
681.0 201.0 152.0 196.0 67.0 104.0 66.0 0.0 1.0 4.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
226.0 115.0 0.0 5.0 135.0 29.0 43.0 77.0 29.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
123.0 19.0 2.0 26.0 18.0 33.0 11.0 119.0 9.0 3.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
157.0 96.0 27.0 82.0 64.0 58.0 11.0 17.0 33.0 18.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
131.0 101.0 46.0 23.0 56.0 51.0 32.0 20.0 14.0 3.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
385.0 218.0 102.0 164.0 86.0 62.0 54.0 24.0 8.0 9.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0

464.0	258.0	240.0	347.0	170.0	127.0	105.0	17.0	19.0	11.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
639.0	370.0	528.0	386.0	230.0	187.0	167.0	65.0	22.0	22.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
780.0	485.0	451.0	525.0	463.0	328.0	202.0	91.0	52.0	15.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
560.0	525.0	456.0	383.0	342.0	150.0	86.0	43.0	10.0	5.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
465.0	283.0	327.0	68.0	66.0	48.0	36.0	17.0	15.0	12.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
294.0	199.0	92.0	0.0	35.0	39.0	114.0	107.0	83.0	8.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
295.0	303.0	0.0	0.0	0.0	69.0	361.0	448.0	145.0	83.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
65.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 7.0 18.0 34.0 55.0 81.0 112.0 149.0 192.0 241.0
0.0 0.0 0.0 25.0 112.0 71.0 38.0 25.0 26.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
370.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
49.0 34.0 75.0 120.0 8.0 26.0 11.0 6.0 10.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
532.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
76.0 152.0 37.0 32.0 81.0 74.0 30.0 17.0 19.0 10.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
537.0 24.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
87.0 119.0 91.0 57.0 69.0 43.0 46.0 1.0 40.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1082.0 152.0 23.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
384.0 250.0 69.0 159.0 151.0 115.0 43.0 17.0 12.0 4.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1422.0 281.0 66.0 25.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
519.0 432.0 301.0 161.0 96.0 109.0 40.0 64.0 46.0 16.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1535.0 553.0 97.0 54.0 32.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
729.0 759.0 358.0 168.0 44.0 87.0 52.0 47.0 2.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1961.0 439.0 132.0 44.0 56.0 45.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1297.0 809.0 150.0 235.0 102.0 36.0 24.0 0.0 2.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1664.0 297.0 179.0 43.0 18.0 2.0 0.0 23.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
827.0 594.0 338.0 190.0 127.0 26.0 27.0 35.0 51.0 25.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1089.0 234.0 69.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 11.0 18.0 27.0 38.0 51.0 66.0 83.0
457.0 364.0 245.0 206.0 57.0 37.0 43.0 39.0 0.0 9.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
629.0 299.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
228.0 244.0 173.0 85.0 51.0 4.0 43.0 67.0 21.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1418.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
544.0 191.0 171.0 96.0 81.0 116.0 23.0 21.0 7.0 2.0
[RAIN]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
38.0 28.0 26.0 0.0 0.0 27.0 2.0 100.0 104.0 61.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
145.0 79.0 80.0 17.0 38.0 60.0 15.0 37.0 20.0 39.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 82.0 103.0
157.0 143.0 91.0 76.0 41.0 43.0 20.0 6.0 5.0 8.0
0.0 1.0 7.0 19.0 37.0 61.0 91.0 127.0 169.0 217.0 271.0
397.0 478.0 324.0 136.0 71.0 47.0 15.0 6.0 9.0 8.0
0.0 1.0 6.0 16.0 31.0 51.0 76.0 106.0 141.0 181.0 226.0

585.0	528.0	585.0	256.0	150.0	103.0	41.0	12.0	13.0	9.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
592.0	496.0	648.0	576.0	346.0	306.0	212.0	96.0	27.0	9.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
805.0	474.0	756.0	820.0	567.0	308.0	129.0	67.0	33.0	14.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	65.0	84.0	106.0
727.0	481.0	630.0	589.0	373.0	255.0	96.0	39.0	26.0	17.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
532.0	320.0	198.0	246.0	244.0	131.0	36.0	23.0	27.0	8.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
171.0	414.0	100.0	194.0	57.0	43.0	24.0	61.0	108.0	52.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
64.0	1092.0	38.0	95.0	52.0	16.0	26.0	30.0	44.0	15.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
574.0 31.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 5.0 12.0 22.0 36.0 54.0 76.0 102.0 132.0 166.0
99.0 168.0 218.0 67.0 58.0 41.0 92.0 30.0 20.0 38.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
295.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
69.0 17.0 47.0 85.0 0.0 52.0 0.0 0.0 1.0 19.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
347.0 62.0 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 16.0 24.0 34.0 46.0 60.0 76.0
45.0 99.0 42.0 75.0 43.0 31.0 55.0 23.0 0.0 23.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
454.0 127.0 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
60.0 98.0 29.0 157.0 103.0 53.0 41.0 23.0 3.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1189.0 229.0 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
363.0 319.0 239.0 138.0 136.0 144.0 64.0 2.0 3.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1689.0 429.0 15.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
703.0 511.0 377.0 163.0 134.0 109.0 76.0 12.0 0.0 16.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1846.0 518.0 90.0 36.0 39.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
988.0 849.0 262.0 193.0 86.0 91.0 51.0 1.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1577.0 545.0 269.0 67.0 1.0 16.0 0.0 0.0 0.0 44.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1107.0 779.0 234.0 218.0 101.0 31.0 2.0 0.0 0.0 17.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1870.0 442.0 66.0 23.0 10.0 0.0 0.0 0.0 0.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1106.0 550.0 363.0 196.0 1.0 83.0 52.0 47.0 19.0 29.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1108.0 307.0 45.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 56.0
567.0 403.0 217.0 93.0 21.0 70.0 63.0 8.0 0.0 79.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
685.0 102.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
200.0 211.0 138.0 53.0 60.0 9.0 31.0 67.0 27.0 5.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1072.0 341.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
577.0 229.0 65.0 63.0 173.0 36.0 74.0 0.0 0.0 1.0
[RAIN]
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
6.0 183.0 103.0 31.0 0.0 20.0 48.0 84.0 74.0 7.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 50.0 67.0 87.0 110.0
33.0 93.0 17.0 22.0 7.0 35.0 66.0 21.0 9.0 4.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 91.0 120.0 153.0 190.0
174.0 128.0 91.0 61.0 56.0 5.0 8.0 11.0 18.0 13.0
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
197.0 66.0 165.0 104.0 92.0 55.0 28.0 3.0 11.0 11.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 71.0 95.0 123.0 155.0
397.0 335.0 482.0 300.0 153.0 36.0 27.0 8.0 19.0 22.0
0.0 1.0 4.0 10.0 19.0 31.0 46.0 64.0 85.0 109.0 136.0

522.0	368.0	726.0	503.0	226.0	134.0	63.0	27.0	16.0	4.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
651.0	423.0	819.0	520.0	470.0	257.0	200.0	113.0	41.0	20.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
792.0	618.0	1033.0	754.0	448.0	278.0	161.0	65.0	24.0	5.0	
0.0	1.0	6.0	15.0	29.0	48.0	72.0	101.0	135.0	174.0	218.0
769.0	599.0	788.0	595.0	215.0	92.0	66.0	44.0	14.0	16.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	93.0	120.0	151.0
462.0	471.0	506.0	274.0	66.0	11.0	11.0	15.0	7.0	5.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
245.0	235.0	112.0	116.0	58.0	9.0	4.0	92.0	3.0	7.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
111.0	511.0	538.0	11.0	90.0	53.0	0.0	94.0	202.0	205.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
788.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 117.0 145.0
116.0 329.0 171.0 155.0 56.0 54.0 99.0 7.0 0.0 24.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
331.0 175.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 37.0 48.0 61.0
99.0 120.0 70.0 116.0 40.0 22.0 19.0 6.0 1.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
615.0 128.0 69.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
176.0 132.0 159.0 86.0 113.0 61.0 14.0 18.0 27.0 19.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
633.0 180.0 39.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
123.0 244.0 114.0 172.0 106.0 73.0 10.0 2.0 1.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1119.0 260.0 87.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
368.0 270.0 86.0 220.0 126.0 140.0 110.0 72.0 17.0 29.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1714.0 301.0 32.0 20.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
875.0 350.0 320.0 158.0 13.0 130.0 72.0 24.0 76.0 17.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1998.0 295.0 154.0 59.0 0.0 10.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
1063.0 724.0 333.0 124.0 125.0 58.0 50.0 22.0 11.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1837.0 618.0 216.0 83.0 21.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1412.0 808.0 264.0 77.0 131.0 4.0 30.0 0.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1905.0 444.0 62.0 94.0 19.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1297.0 620.0 288.0 97.0 110.0 32.0 32.0 38.0 34.0 17.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1348.0 228.0 65.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
509.0 294.0 325.0 228.0 235.0 35.0 18.0 0.0 44.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
885.0 76.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
251.0 203.0 175.0 97.0 55.0 23.0 41.0 91.0 21.0 6.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1483.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
535.0 329.0 116.0 86.0 117.0 81.0 0.0 26.0 7.0 2.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
287.0 54.0 81.0 87.0 53.0 35.0 65.0 36.0 39.0 4.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
211.0 193.0 52.0 117.0 0.0 0.0 0.0 17.0 33.0 63.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
221.0 467.0 128.0 108.0 27.0 22.0 18.0 22.0 30.0 35.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
311.0 301.0 122.0 129.0 83.0 63.0 43.0 43.0 13.0 6.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 117.0 145.0
383.0 526.0 347.0 301.0 159.0 76.0 49.0 39.0 25.0 13.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 92.0 123.0 159.0 200.0

410.0	598.0	721.0	360.0	156.0	83.0	68.0	29.0	48.0	36.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	71.0	95.0	123.0	155.0
485.0	558.0	805.0	623.0	419.0	264.0	147.0	30.0	18.0	10.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
595.0	552.0	659.0	896.0	670.0	409.0	223.0	108.0	33.0	12.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
668.0	585.0	407.0	455.0	501.0	356.0	274.0	129.0	62.0	11.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
393.0	506.0	328.0	257.0	221.0	133.0	90.0	27.0	21.0	6.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	121.0	156.0	196.0
302.0	217.0	122.0	95.0	61.0	41.0	51.0	37.0	45.0	32.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
374.0	93.0	235.0	186.0	144.0	216.0	150.0	86.0	36.0	16.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
17.0	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	6.0	15.0	29.0	48.0	72.0	101.0	135.0	174.0	218.0
0.0	0.0	0.0	0.0	115.0	42.0	37.0	31.0	61.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
427.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
33.0	50.0	86.0	71.0	83.0	40.0	24.0	0.0	0.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
455.0	24.0	30.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
115.0	54.0	69.0	84.0	50.0	39.0	29.0	43.0	16.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
650.0	53.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
109.0	155.0	164.0	99.0	56.0	68.0	41.0	24.0	2.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1091.0	168.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
307.0	259.0	209.0	106.0	63.0	159.0	121.0	47.0	16.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1470.0	307.0	81.0	54.0	27.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
706.0	415.0	285.0	154.0	82.0	131.0	104.0	3.0	0.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1756.0	521.0	175.0	12.0	33.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
1146.0	697.0	234.0	158.0	117.0	75.0	68.0	0.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1976.0	473.0	244.0	104.0	2.0	31.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1452.0	914.0	233.0	133.0	5.0	21.0	39.0	0.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1585.0	455.0	113.0	63.0	50.0	21.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1026.0	492.0	362.0	145.0	82.0	83.0	46.0	49.0	13.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1547.0	266.0	51.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
746.0	186.0	286.0	379.0	108.0	74.0	35.0	43.0	39.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
891.0	204.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
272.0	352.0	126.0	85.0	143.0	3.0	19.0	100.0	0.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
465.0	950.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
556.0	347.0	134.0	89.0	53.0	40.0	18.0	8.0	6.0	2.0	
[RAIN]										
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
18.0	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
23.0	179.0	36.0	16.0	66.0	91.0	6.0	4.0	20.0	7.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	113.0	151.0	195.0	245.0
135.0	191.0	97.0	44.0	79.0	37.0	19.0	21.0	27.0	16.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	71.0	95.0	123.0	155.0
179.0	247.0	140.0	82.0	64.0	48.0	36.0	13.0	12.0	5.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
348.0	479.0	406.0	199.0	91.0	30.0	36.0	18.0	12.0	10.0	
0.0	1.0	7.0	18.0	34.0	56.0	84.0	118.0	158.0	204.0	256.0

389.0	819.0	684.0	376.0	178.0	99.0	78.0	27.0	9.0	19.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	121.0	156.0	196.0
605.0	846.0	841.0	537.0	350.0	241.0	96.0	26.0	14.0	7.0	
0.0	1.0	8.0	21.0	40.0	65.0	97.0	136.0	182.0	235.0	295.0
717.0	1394.0	1078.0	620.0	228.0	125.0	38.0	28.0	15.0	9.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
677.0	680.0	1030.0	647.0	254.0	83.0	20.0	16.0	16.0	10.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
574.0	320.0	501.0	438.0	242.0	87.0	54.0	23.0	6.0	6.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
344.0	145.0	104.0	265.0	91.0	49.0	48.0	23.0	51.0	147.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
910.0	505.0	2.0	162.0	6.0	0.0	28.0	254.0	367.0	243.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
751.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 65.0 84.0 106.0
117.0 241.0 169.0 185.0 16.0 72.0 36.0 60.0 26.0 50.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
303.0 97.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 65.0 84.0 106.0
69.0 96.0 97.0 57.0 38.0 17.0 11.0 3.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
497.0 167.0 18.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
125.0 73.0 85.0 158.0 96.0 22.0 28.0 35.0 19.0 40.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
806.0 182.0 63.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
175.0 169.0 221.0 222.0 109.0 82.0 21.0 15.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1562.0 357.0 43.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
660.0 361.0 309.0 134.0 187.0 115.0 93.0 54.0 15.0 4.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1445.0 579.0 112.0 79.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
906.0 435.0 300.0 182.0 216.0 98.0 8.0 38.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1815.0 457.0 256.0 19.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1129.0 662.0 259.0 243.0 84.0 78.0 37.0 23.0 0.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1390.0 640.0 177.0 155.0 98.0 14.0 56.0 16.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1360.0 761.0 279.0 69.0 26.0 37.0 0.0 1.0 1.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1423.0 662.0 221.0 87.0 80.0 2.0 3.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1149.0 813.0 271.0 178.0 69.0 2.0 0.0 0.0 0.0 9.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1278.0 260.0 97.0 25.0 7.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 46.0 58.0
586.0 474.0 347.0 140.0 106.0 30.0 16.0 24.0 0.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
672.0 289.0 4.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
143.0 179.0 62.0 112.0 152.0 162.0 51.0 15.0 104.0 21.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1534.0 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
524.0 238.0 185.0 117.0 115.0 53.0 86.0 24.0 1.0 5.0
[RAIN]
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
48.0 136.0 39.0 1.0 89.0 115.0 87.0 38.0 74.0 62.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
111.0 111.0 44.0 104.0 42.0 24.0 4.0 0.0 50.0 12.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
276.0 163.0 142.0 71.0 61.0 86.0 65.0 12.0 16.0 6.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
351.0 238.0 240.0 117.0 168.0 115.0 71.0 30.0 20.0 18.0
0.0 1.0 4.0 9.0 16.0 25.0 37.0 52.0 70.0 91.0 115.0
580.0 306.0 601.0 264.0 279.0 206.0 55.0 55.0 65.0 19.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 118.0 148.0

764.0	510.0	779.0	551.0	339.0	172.0	48.0	30.0	32.0	19.0	
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0
617.0	697.0	959.0	765.0	320.0	148.0	25.0	10.0	16.0	20.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
954.0	806.0	1308.0	968.0	514.0	184.0	74.0	8.0	23.0	22.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
819.0	916.0	996.0	696.0	434.0	238.0	89.0	32.0	25.0	8.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
460.0	307.0	293.0	286.0	285.0	262.0	151.0	89.0	50.0	15.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
301.0	302.0	71.0	157.0	86.0	112.0	64.0	62.0	74.0	27.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
112.0	279.0	48.0	169.0	363.0	265.0	174.0	140.0	43.0	1.0	

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0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
740.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 91.0 120.0 153.0 190.0
172.0 343.0 87.0 115.0 68.0 93.0 29.0 26.0 24.0 8.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
343.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
87.0 35.0 55.0 89.0 44.0 22.0 6.0 0.0 1.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
446.0 152.0 39.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
89.0 80.0 107.0 48.0 134.0 54.0 21.0 34.0 13.0 33.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
768.0 101.0 20.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
164.0 143.0 127.0 210.0 109.0 105.0 32.0 2.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1316.0 323.0 59.0 41.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
511.0 336.0 217.0 223.0 132.0 50.0 149.0 44.0 22.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1634.0 456.0 53.0 35.0 14.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
828.0 549.0 305.0 203.0 105.0 71.0 20.0 65.0 4.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1686.0 521.0 124.0 130.0 1.0 18.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
995.0 752.0 349.0 183.0 97.0 22.0 44.0 14.0 0.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1513.0 729.0 193.0 117.0 45.0 27.0 48.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1544.0 628.0 319.0 71.0 28.0 14.0 17.0 0.0 19.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1397.0 578.0 159.0 130.0 19.0 23.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 11.0
978.0 657.0 331.0 149.0 33.0 111.0 40.0 19.0 1.0 13.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1019.0 432.0 68.0 26.0 0.0 1.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
484.0 452.0 402.0 94.0 83.0 53.0 51.0 0.0 0.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
467.0 483.0 133.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
230.0 187.0 253.0 85.0 158.0 53.0 0.0 33.0 0.0 49.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1839.0 15.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
763.0 324.0 209.0 194.0 143.0 42.0 0.0 6.0 1.0 18.0
[RAIN]
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
258.0 0.0 0.0 193.0 0.0 8.0 32.0 39.0 73.0 84.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
37.0 30.0 33.0 202.0 11.0 13.0 6.0 8.0 7.0 4.0
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
257.0 191.0 161.0 102.0 30.0 19.0 30.0 37.0 31.0 10.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 70.0 92.0 118.0 148.0
199.0 229.0 291.0 122.0 67.0 38.0 32.0 30.0 15.0 32.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
390.0 587.0 419.0 356.0 224.0 174.0 92.0 61.0 17.0 8.0
0.0 1.0 4.0 9.0 16.0 25.0 36.0 50.0 67.0 87.0 110.0

538.0	456.0	538.0	484.0	321.0	270.0	173.0	76.0	36.0	10.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	92.0	123.0	159.0	200.0
808.0	828.0	905.0	599.0	299.0	120.0	97.0	42.0	26.0	18.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
796.0	927.0	1048.0	825.0	596.0	276.0	131.0	81.0	28.0	5.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
786.0	505.0	846.0	763.0	427.0	248.0	117.0	48.0	39.0	14.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
386.0	318.0	479.0	518.0	236.0	144.0	83.0	21.0	9.0	7.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
496.0	246.0	224.0	197.0	151.0	218.0	149.0	65.0	53.0	12.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
803.0	127.0	99.0	0.0	0.0	48.0	122.0	200.0	342.0	180.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
763.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	191.0
164.0	325.0	269.0	64.0	95.0	66.0	1.0	16.0	10.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
562.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
137.0	152.0	164.0	54.0	35.0	10.0	1.0	0.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
513.0	232.0	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
122.0	55.0	196.0	144.0	115.0	35.0	46.0	27.0	22.0	28.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
813.0	157.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
169.0	255.0	167.0	167.0	127.0	78.0	29.0	9.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1376.0	213.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
386.0	306.0	340.0	181.0	75.0	102.0	130.0	60.0	33.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1787.0	342.0	54.0	22.0	0.0	0.0	18.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
924.0	402.0	412.0	300.0	84.0	20.0	1.0	22.0	29.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1719.0	602.0	185.0	24.0	0.0	0.0	3.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1063.0	712.0	304.0	187.0	144.0	35.0	23.0	46.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1438.0	612.0	261.0	82.0	131.0	23.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1174.0	882.0	223.0	123.0	81.0	1.0	22.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1528.0	682.0	165.0	93.0	24.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1486.0	488.0	161.0	206.0	89.0	0.0	14.0	40.0	0.0	40.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1398.0	320.0	77.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
753.0	499.0	300.0	207.0	32.0	31.0	46.0	0.0	0.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
924.0	124.0	119.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
362.0	266.0	183.0	113.0	104.0	62.0	10.0	45.0	19.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
802.0	786.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
582.0	321.0	151.0	195.0	0.0	65.0	55.0	61.0	3.0	2.0	
[RAIN]										
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
126.0	92.0	0.0	0.0	0.0	87.0	314.0	59.0	61.0	45.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
62.0	147.0	13.0	29.0	45.0	214.0	26.0	13.0	10.0	7.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
288.0	217.0	186.0	197.0	81.0	63.0	28.0	42.0	41.0	28.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
293.0	197.0	210.0	206.0	107.0	101.0	50.0	42.0	51.0	14.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
280.0	360.0	210.0	344.0	260.0	130.0	102.0	128.0	105.0	35.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0

488.0	406.0	558.0	523.0	368.0	245.0	174.0	77.0	18.0	13.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	154.0	193.0
655.0	746.0	818.0	635.0	372.0	141.0	90.0	51.0	42.0	29.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0
812.0	616.0	812.0	933.0	653.0	319.0	186.0	128.0	60.0	16.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
558.0	735.0	785.0	802.0	592.0	243.0	98.0	42.0	52.0	19.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
475.0	342.0	445.0	472.0	336.0	172.0	74.0	20.0	16.0	10.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
250.0	62.0	92.0	154.0	297.0	314.0	140.0	95.0	104.0	9.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
407.0	5.0	68.0	5.0	255.0	684.0	272.0	149.0	378.0	243.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
674.0 130.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
142.0 244.0 200.0 146.0 79.0 63.0 36.0 56.0 11.0 32.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
428.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 16.0 24.0 34.0 46.0 60.0 76.0
87.0 37.0 71.0 86.0 71.0 55.0 15.0 3.0 0.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
592.0 95.0 33.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
68.0 56.0 77.0 136.0 112.0 101.0 82.0 17.0 26.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1049.0 235.0 20.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
318.0 251.0 154.0 160.0 84.0 90.0 95.0 47.0 75.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1486.0 265.0 135.0 14.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
561.0 373.0 201.0 238.0 208.0 57.0 2.0 104.0 89.0 25.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1608.0 414.0 85.0 19.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
783.0 497.0 268.0 241.0 87.0 59.0 53.0 18.0 45.0 62.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1532.0 524.0 292.0 83.0 38.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1045.0 703.0 338.0 185.0 91.0 6.0 23.0 18.0 11.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1610.0 676.0 225.0 77.0 76.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1372.0 698.0 327.0 153.0 84.0 0.0 1.0 14.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1758.0 430.0 153.0 137.0 38.0 41.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1320.0 662.0 263.0 172.0 101.0 30.0 0.0 19.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1287.0 422.0 99.0 41.0 24.0 1.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
824.0 578.0 220.0 207.0 13.0 66.0 13.0 0.0 10.0 12.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1016.0 85.0 71.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
368.0 167.0 172.0 117.0 97.0 133.0 94.0 21.0 0.0 19.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1140.0 509.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
716.0 284.0 108.0 125.0 3.0 88.0 104.0 39.0 17.0 7.0
[RAIN]
0.0 1.0 4.0 9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
401.0 43.0 27.0 0.0 31.0 97.0 79.0 49.0 46.0 81.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
123.0 79.0 51.0 25.0 41.0 21.0 24.0 49.0 10.0 13.0
0.0 1.0 3.0 6.0 10.0 15.0 22.0 31.0 42.0 55.0 70.0
171.0 88.0 101.0 151.0 135.0 87.0 70.0 45.0 24.0 7.0
0.0 1.0 4.0 9.0 16.0 25.0 37.0 52.0 70.0 91.0 115.0
442.0 197.0 264.0 249.0 138.0 139.0 120.0 41.0 17.0 7.0
0.0 1.0 5.0 12.0 22.0 35.0 52.0 73.0 98.0 127.0 160.0
611.0 404.0 555.0 345.0 229.0 191.0 100.0 11.0 7.0 16.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 91.0 120.0 153.0 190.0

419.0	590.0	835.0	480.0	274.0	125.0	36.0	9.0	4.0	16.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
898.0	608.0	859.0	692.0	449.0	265.0	98.0	60.0	12.0	21.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
900.0	767.0	969.0	687.0	488.0	285.0	141.0	47.0	30.0	21.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
609.0	612.0	850.0	876.0	633.0	288.0	104.0	47.0	25.0	8.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
457.0	480.0	366.0	415.0	297.0	312.0	206.0	107.0	49.0	26.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
498.0	243.0	150.0	132.0	115.0	94.0	89.0	49.0	8.0	1.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
1017.0	70.0	61.0	64.0	107.0	219.0	338.0	169.0	107.0	82.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
614.0 78.0 95.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 4.0 9.0 16.0 26.0 39.0 55.0 74.0 96.0 121.0
147.0 214.0 197.0 122.0 186.0 61.0 38.0 38.0 0.0 8.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
631.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 29.0 39.0 51.0 65.0
116.0 173.0 72.0 100.0 45.0 66.0 13.0 16.0 14.0 14.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
922.0 110.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
186.0 196.0 149.0 88.0 35.0 135.0 114.0 52.0 56.0 11.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1324.0 199.0 55.0 41.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
427.0 333.0 193.0 169.0 99.0 151.0 134.0 52.0 18.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1705.0 237.0 84.0 20.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
711.0 425.0 267.0 157.0 184.0 54.0 124.0 43.0 65.0 16.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1893.0 397.0 106.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1022.0 480.0 363.0 249.0 104.0 2.0 101.0 17.0 0.0 32.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1407.0 577.0 385.0 111.0 14.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1304.0 540.0 269.0 175.0 103.0 42.0 7.0 0.0 0.0 29.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1392.0 567.0 357.0 196.0 53.0 31.0 19.0 0.0 0.0 15.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1542.0 693.0 277.0 50.0 3.0 24.0 0.0 0.0 0.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1646.0 634.0 216.0 89.0 71.0 33.0 2.0 0.0 17.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1647.0 714.0 235.0 127.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1495.0 550.0 227.0 48.0 12.0 1.0 15.0 0.0 1.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1041.0 569.0 221.0 274.0 139.0 57.0 0.0 22.0 53.0 16.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
928.0 143.0 97.0 1.0 1.0 0.0 1.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
346.0 193.0 17.0 280.0 46.0 82.0 88.0 70.0 74.0 37.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1350.0 4.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
335.0 214.0 207.0 106.0 3.0 137.0 67.0 48.0 36.0 6.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
162.0 212.0 112.0 125.0 176.0 105.0 12.0 21.0 55.0 38.0
0.0 1.0 4.0 10.0 19.0 31.0 46.0 64.0 85.0 109.0 136.0
123.0 52.0 150.0 150.0 84.0 50.0 29.0 5.0 8.0 5.0
0.0 1.0 7.0 18.0 34.0 55.0 81.0 113.0 151.0 195.0 245.0
378.0 194.0 250.0 119.0 91.0 31.0 20.0 25.0 26.0 15.0
0.0 1.0 5.0 12.0 22.0 36.0 54.0 76.0 102.0 132.0 166.0
502.0 429.0 445.0 303.0 191.0 79.0 59.0 25.0 26.0 8.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
503.0 291.0 462.0 558.0 300.0 138.0 118.0 60.0 45.0 41.0
0.0 1.0 4.0 9.0 16.0 25.0 37.0 52.0 70.0 91.0 115.0

554.0	474.0	619.0	492.0	403.0	237.0	122.0	66.0	38.0	13.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	93.0	120.0	151.0	
811.0	677.0	992.0	819.0	448.0	217.0	94.0	88.0	51.0	12.0		
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0	
841.0	903.0	1054.0	1095.0	602.0	309.0	152.0	72.0	26.0	29.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0	
831.0	923.0	1217.0	873.0	403.0	280.0	113.0	33.0	25.0	7.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0	
533.0	1056.0	1349.0	404.0	143.0	58.0	45.0	23.0	25.0	12.0		
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0	
240.0	377.0	583.0	190.0	35.0	19.0	6.0	14.0	18.0	13.0		
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0	
271.0	404.0	258.0	205.0	142.0	16.0	66.0	21.0	8.0	5.0		

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
557.0	195.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
119.0	221.0	175.0	162.0	67.0	83.0	65.0	52.0	0.0	37.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
460.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
66.0	147.0	106.0	55.0	75.0	13.0	10.0	2.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
808.0	125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
145.0	171.0	202.0	152.0	68.0	112.0	43.0	0.0	7.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1118.0	217.0	18.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
307.0	237.0	352.0	297.0	80.0	63.0	2.0	0.0	0.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1450.0	400.0	102.0	25.0	23.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
730.0	343.0	302.0	184.0	151.0	22.0	81.0	91.0	42.0	37.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1504.0	688.0	14.0	19.0	1.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
803.0	572.0	328.0	219.0	108.0	58.0	49.0	17.0	37.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1484.0	534.0	197.0	83.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
715.0	715.0	411.0	145.0	153.0	43.0	35.0	57.0	9.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1545.0	605.0	218.0	110.0	37.0	35.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1188.0	711.0	415.0	109.0	50.0	3.0	20.0	18.0	0.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1701.0	582.0	270.0	55.0	0.0	15.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1320.0	732.0	369.0	108.0	41.0	0.0	20.0	18.0	16.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1397.0	424.0	147.0	57.0	42.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
898.0	503.0	248.0	185.0	153.0	68.0	0.0	0.0	38.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
948.0	164.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
297.0	210.0	249.0	210.0	46.0	66.0	0.0	45.0	28.0	8.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
933.0	285.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
268.0	239.0	121.0	171.0	3.0	108.0	79.0	22.0	14.0	1.0	
[RAIN]										
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
136.0	98.0	42.0	125.0	118.0	80.0	52.0	84.0	114.0	45.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
76.0	75.0	35.0	57.0	47.0	33.0	44.0	64.0	59.0	36.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
184.0	207.0	200.0	135.0	87.0	64.0	54.0	72.0	47.0	12.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
339.0	364.0	408.0	208.0	165.0	97.0	49.0	30.0	10.0	8.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0
523.0	640.0	704.0	516.0	240.0	97.0	33.0	18.0	10.0	12.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0

450.0	477.0	752.0	637.0	439.0	138.0	57.0	17.0	22.0	22.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
623.0	462.0	916.0	666.0	470.0	208.0	84.0	18.0	11.0	15.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	121.0	156.0	196.0
666.0	820.0	1134.0	800.0	442.0	246.0	61.0	21.0	11.0	16.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0
695.0	642.0	778.0	876.0	632.0	245.0	82.0	36.0	25.0	10.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
790.0	538.0	701.0	490.0	294.0	193.0	34.0	25.0	23.0	15.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
414.0	256.0	102.0	198.0	93.0	84.0	77.0	31.0	25.0	3.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
268.0	184.0	76.0	216.0	165.0	166.0	138.0	118.0	117.0	87.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
797.0 169.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 7.0 13.0 21.0 31.0 43.0 57.0 73.0 91.0
182.0 262.0 226.0 177.0 157.0 88.0 19.0 27.0 25.0 17.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
605.0 127.0 33.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 11.0 18.0 27.0 38.0 51.0 66.0 83.0
221.0 132.0 104.0 136.0 83.0 50.0 19.0 11.0 0.0 2.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1138.0 142.0 53.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
389.0 229.0 115.0 215.0 183.0 134.0 22.0 12.0 0.0 10.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1507.0 396.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
571.0 413.0 372.0 195.0 63.0 111.0 60.0 75.0 0.0 20.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1505.0 330.0 115.0 107.0 0.0 0.0 0.0 0.0 18.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
725.0 459.0 350.0 205.0 49.0 72.0 55.0 45.0 55.0 46.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1639.0 458.0 169.0 19.0 12.0 0.0 0.0 0.0 1.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
851.0 669.0 277.0 183.0 145.0 94.0 40.0 12.0 16.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1460.0 351.0 120.0 43.0 26.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 5.0 8.0 12.0 17.0 23.0 30.0 38.0
737.0 482.0 299.0 264.0 143.0 35.0 30.0 11.0 19.0 23.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1367.0 345.0 167.0 63.0 4.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
546.0 427.0 341.0 239.0 128.0 57.0 66.0 72.0 42.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1457.0 374.0 187.0 86.0 51.0 42.0 23.0 19.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
993.0 512.0 234.0 244.0 122.0 59.0 5.0 1.0 38.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1338.0 367.0 153.0 90.0 20.0 0.0 1.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 7.0 10.0 14.0 19.0 25.0
696.0 426.0 354.0 191.0 101.0 70.0 76.0 22.0 43.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
964.0 160.0 31.0 35.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
289.0 130.0 186.0 60.0 184.0 81.0 92.0 70.0 75.0 57.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
754.0 522.0 2.0 3.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
358.0 175.0 161.0 118.0 33.0 115.0 45.0 59.0 19.0 2.0
[RAIN]
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
277.0 102.0 96.0 208.0 91.0 58.0 65.0 118.0 47.0 19.0
0.0 1.0 5.0 12.0 22.0 35.0 51.0 71.0 95.0 123.0 155.0
218.0 234.0 149.0 126.0 75.0 51.0 24.0 32.0 29.0 31.0
0.0 1.0 5.0 13.0 25.0 41.0 61.0 85.0 113.0 145.0 181.0
349.0 424.0 281.0 156.0 122.0 104.0 87.0 46.0 18.0 7.0
0.0 1.0 8.0 21.0 41.0 68.0 102.0 143.0 191.0 246.0 308.0
336.0 649.0 741.0 263.0 128.0 79.0 47.0 31.0 32.0 20.0
0.0 1.0 5.0 13.0 25.0 41.0 61.0 85.0 113.0 145.0 181.0
503.0 447.0 761.0 588.0 370.0 212.0 111.0 47.0 21.0 7.0
0.0 1.0 4.0 9.0 16.0 26.0 39.0 55.0 74.0 96.0 121.0

574.0	472.0	576.0	538.0	475.0	369.0	112.0	76.0	38.0	16.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
747.0	552.0	374.0	364.0	310.0	202.0	140.0	84.0	44.0	10.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
898.0	532.0	472.0	347.0	317.0	89.0	64.0	45.0	31.0	23.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0
919.0	487.0	909.0	691.0	544.0	203.0	73.0	21.0	14.0	12.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
726.0	502.0	501.0	532.0	373.0	221.0	115.0	34.0	29.0	6.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
389.0	269.0	245.0	200.0	158.0	88.0	67.0	53.0	34.0	10.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
489.0	202.0	267.0	140.0	126.0	98.0	230.0	169.0	89.0	38.0	

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[SERIES]
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
814.0 210.0 8.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 16.0 24.0 34.0 46.0 60.0 76.0
241.0 244.0 157.0 236.0 93.0 121.0 45.0 57.0 38.0 13.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
589.0 208.0 29.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 4.0 7.0 11.0 16.0 22.0 29.0 37.0 46.0
195.0 171.0 110.0 94.0 93.0 53.0 55.0 33.0 6.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1549.0 303.0 25.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
760.0 334.0 324.0 118.0 94.0 62.0 118.0 33.0 3.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1587.0 401.0 42.0 0.0 19.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
694.0 416.0 267.0 288.0 101.0 88.0 56.0 72.0 62.0 1.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1908.0 272.0 178.0 69.0 1.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1030.0 635.0 207.0 159.0 145.0 62.0 93.0 36.0 32.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1393.0 593.0 283.0 82.0 0.0 26.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1075.0 548.0 380.0 199.0 57.0 65.0 34.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1246.0 428.0 311.0 156.0 61.0 22.0 22.0 0.0 0.0 30.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1012.0 645.0 330.0 104.0 123.0 33.0 15.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 9.0 12.0 16.0
1214.0 589.0 354.0 150.0 0.0 39.0 55.0 63.0 25.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1529.0 691.0 135.0 67.0 20.0 0.0 0.0 18.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1357.0 523.0 362.0 181.0 86.0 0.0 3.0 1.0 1.0 47.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1846.0 470.0 156.0 72.0 1.0 0.0 0.0 0.0 0.0 20.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 10.0 13.0
1377.0 288.0 181.0 147.0 39.0 0.0 0.0 0.0 0.0 3.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 8.0 11.0 15.0 20.0
946.0 365.0 244.0 164.0 29.0 103.0 112.0 39.0 74.0 17.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1131.0 213.0 4.0 2.0 1.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
274.0 445.0 290.0 220.0 57.0 57.0 45.0 0.0 0.0 6.0
0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
1009.0 247.0 62.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
0.0 1.0 2.0 3.0 4.0 6.0 9.0 13.0 18.0 24.0 31.0
313.0 217.0 163.0 64.0 170.0 93.0 63.0 45.0 11.0 2.0
[RAIN]
0.0 1.0 3.0 6.0 10.0 15.0 21.0 28.0 36.0 45.0 55.0
344.0 126.0 140.0 118.0 110.0 160.0 109.0 64.0 24.0 12.0
0.0 1.0 4.0 9.0 17.0 28.0 42.0 59.0 79.0 102.0 128.0
242.0 249.0 218.0 158.0 137.0 55.0 19.0 14.0 3.0 3.0
0.0 1.0 8.0 21.0 40.0 65.0 96.0 133.0 176.0 225.0 280.0
390.0 741.0 550.0 255.0 136.0 70.0 70.0 26.0 16.0 14.0
0.0 1.0 6.0 15.0 29.0 48.0 72.0 101.0 135.0 174.0 218.0
484.0 549.0 598.0 299.0 304.0 142.0 121.0 65.0 22.0 16.0
0.0 1.0 4.0 10.0 19.0 31.0 46.0 64.0 85.0 109.0 136.0
682.0 544.0 547.0 566.0 351.0 259.0 190.0 92.0 34.0 9.0
0.0 1.0 6.0 15.0 28.0 45.0 66.0 91.0 121.0 156.0 196.0

805.0	842.0	906.0	610.0	393.0	139.0	124.0	33.0	28.0	23.0			
0.0	1.0	6.0	15.0	28.0	45.0	67.0	94.0	126.0	163.0	205.0		
1296.0	1133.0	998.0	579.0	339.0	76.0	148.0	15.0	19.0	15.0			
0.0	1.0	6.0	15.0	28.0	45.0	67.0	94.0	126.0	163.0	205.0		
1074.0	1589.0	1227.0	728.0	426.0	180.0	157.0	35.0	28.0	20.0			
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	146.0		
1086.0	993.0	1251.0	773.0	582.0	283.0	125.0	85.0	68.0	12.0			
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0		
636.0	753.0	983.0	499.0	291.0	132.0	44.0	11.0	12.0	16.0			
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0		
383.0	287.0	516.0	204.0	90.0	46.0	15.0	12.0	21.0	13.0			
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0		
440.0	232.0	297.0	241.0	148.0	136.0	104.0	82.0	33.0	14.0			

[END]

[NAME]

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
705.0	263.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
192.0	262.0	157.0	168.0	104.0	130.0	51.0	73.0	27.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
732.0	93.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	37.0	48.0	61.0
117.0	273.0	115.0	144.0	58.0	70.0	20.0	16.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1288.0	195.0	28.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
313.0	378.0	144.0	190.0	184.0	116.0	122.0	54.0	9.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1334.0	433.0	24.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
578.0	317.0	271.0	182.0	94.0	135.0	37.0	57.0	67.0	59.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1548.0	353.0	92.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
520.0	449.0	322.0	233.0	171.0	100.0	91.0	64.0	38.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1699.0	550.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
981.0	492.0	257.0	154.0	172.0	108.0	35.0	15.0	43.0	20.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1447.0	425.0	101.0	38.0	29.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
683.0	590.0	148.0	181.0	131.0	67.0	63.0	91.0	45.0	34.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1341.0	524.0	136.0	42.0	1.0	24.0	0.0	0.0	19.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
790.0	559.0	259.0	158.0	98.0	48.0	46.0	59.0	40.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1285.0	598.0	269.0	69.0	0.0	23.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1043.0	412.0	419.0	157.0	20.0	77.0	36.0	44.0	35.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1468.0	386.0	127.0	5.0	22.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
840.0	654.0	372.0	61.0	50.0	33.0	12.0	15.0	0.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
995.0	184.0	31.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
385.0	328.0	169.0	74.0	127.0	71.0	32.0	45.0	0.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1187.0	135.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
359.0	232.0	137.0	110.0	27.0	174.0	48.0	29.0	12.0	2.0	

[RAIN]

0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	82.0	103.0
276.0	48.0	263.0	166.0	66.0	64.0	69.0	64.0	61.0	114.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
163.0	139.0	210.0	92.0	66.0	92.0	62.0	81.0	25.0	7.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	190.0	238.0
361.0	470.0	516.0	199.0	114.0	75.0	46.0	31.0	36.0	19.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
392.0	410.0	450.0	537.0	344.0	134.0	38.0	59.0	26.0	11.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
417.0	484.0	453.0	458.0	268.0	254.0	108.0	54.0	57.0	45.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0

588.0	550.0	551.0	445.0	297.0	246.0	119.0	42.0	23.0	53.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
796.0	470.0	395.0	428.0	292.0	239.0	117.0	68.0	17.0	30.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
907.0	463.0	599.0	414.0	352.0	209.0	227.0	45.0	3.0	71.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
891.0	588.0	639.0	652.0	444.0	199.0	146.0	80.0	19.0	61.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
476.0	468.0	576.0	496.0	392.0	125.0	84.0	38.0	63.0	35.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
358.0	262.0	300.0	252.0	97.0	63.0	80.0	22.0	24.0	8.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	82.0	103.0
317.0	184.0	380.0	183.0	73.0	79.0	80.0	62.0	43.0	81.0	

[END]

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
956.0	142.0	87.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
283.0	207.0	265.0	297.0	158.0	71.0	14.0	15.0	41.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
906.0	163.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
291.0	257.0	138.0	110.0	156.0	60.0	56.0	0.0	0.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1294.0	337.0	84.0	53.0	0.0	0.0	24.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
576.0	379.0	248.0	200.0	103.0	28.0	88.0	50.0	84.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1616.0	536.0	31.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
859.0	571.0	198.0	282.0	61.0	121.0	39.0	38.0	0.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1328.0	506.0	319.0	47.0	0.0	33.0	0.0	0.0	25.0	24.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
1040.0	462.0	323.0	175.0	131.0	14.0	53.0	27.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1506.0	576.0	219.0	156.0	0.0	0.0	26.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1508.0	517.0	160.0	108.0	98.0	50.0	18.0	17.0	1.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1113.0	446.0	174.0	66.0	0.0	0.0	25.0	27.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
708.0	456.0	134.0	101.0	57.0	151.0	88.0	98.0	80.0	8.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1391.0	390.0	146.0	34.0	46.0	0.0	24.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
684.0	625.0	216.0	163.0	36.0	96.0	60.0	59.0	39.0	56.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1550.0	416.0	196.0	49.0	36.0	0.0	33.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1001.0	667.0	164.0	162.0	124.0	80.0	3.0	58.0	1.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1617.0	609.0	175.0	54.0	56.0	0.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1231.0	639.0	206.0	157.0	131.0	70.0	21.0	16.0	0.0	27.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1457.0	450.0	107.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
828.0	376.0	273.0	206.0	88.0	62.0	88.0	80.0	39.0	43.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1540.0	125.0	180.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
567.0	412.0	198.0	191.0	74.0	97.0	90.0	52.0	55.0	6.0	
[RAIN]										
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
269.0	318.0	251.0	250.0	102.0	89.0	58.0	63.0	11.0	5.0	
0.0	1.0	8.0	21.0	40.0	65.0	96.0	133.0	176.0	225.0	280.0
159.0	444.0	367.0	190.0	36.0	38.0	23.0	16.0	23.0	16.0	
0.0	1.0	10.0	27.0	52.0	85.0	126.0	175.0	232.0	297.0	370.0
449.0	967.0	652.0	312.0	90.0	28.0	23.0	19.0	34.0	31.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0	235.0
430.0	663.0	902.0	467.0	209.0	102.0	79.0	25.0	11.0	10.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
631.0	458.0	1162.0	714.0	485.0	237.0	181.0	70.0	43.0	69.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0

780.0	676.0	1180.0	674.0	400.0	184.0	238.0	59.0	39.0	29.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
847.0	630.0	519.0	419.0	292.0	183.0	119.0	69.0	37.0	12.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
1121.0	809.0	447.0	305.0	181.0	104.0	92.0	49.0	30.0	22.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
1019.0	602.0	793.0	469.0	243.0	77.0	168.0	77.0	88.0	58.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
882.0	646.0	1044.0	567.0	384.0	149.0	82.0	54.0	59.0	31.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
630.0	551.0	723.0	427.0	301.0	108.0	77.0	7.0	20.0	20.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
672.0	332.0	381.0	412.0	290.0	153.0	95.0	4.0	45.0	23.0	

[END]

[NAME]

C-60

655600WG

[LAT, LON and ALT]

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
847.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
247.0	62.0	81.0	189.0	107.0	175.0	72.0	85.0	54.0	48.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
826.0	102.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
229.0	130.0	110.0	90.0	74.0	118.0	70.0	61.0	28.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1535.0	224.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
540.0	308.0	248.0	349.0	134.0	116.0	28.0	15.0	0.0	10.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1568.0	318.0	40.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
639.0	369.0	292.0	202.0	99.0	91.0	136.0	32.0	65.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1591.0	469.0	123.0	12.0	0.0	0.0	24.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
850.0	489.0	331.0	126.0	160.0	75.0	70.0	77.0	20.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1523.0	501.0	110.0	79.0	0.0	28.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
960.0	505.0	255.0	167.0	147.0	92.0	50.0	49.0	2.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1276.0	403.0	271.0	17.0	52.0	32.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
833.0	436.0	198.0	171.0	120.0	128.0	105.0	0.0	49.0	20.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1292.0	693.0	103.0	107.0	0.0	35.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
971.0	566.0	171.0	205.0	79.0	92.0	36.0	66.0	0.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1553.0	452.0	254.0	121.0	43.0	33.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1379.0	401.0	325.0	153.0	109.0	60.0	18.0	0.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1404.0	594.0	96.0	29.0	1.0	15.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
914.0	517.0	223.0	167.0	52.0	89.0	86.0	45.0	48.0	42.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
985.0	296.0	26.0	27.0	0.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
341.0	204.0	273.0	219.0	169.0	55.0	57.0	31.0	13.0	7.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1441.0	68.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
457.0	325.0	76.0	50.0	69.0	175.0	107.0	40.0	28.0	7.0	

[RAIN]

0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
148.0	130.0	68.0	137.0	127.0	106.0	62.0	69.0	58.0	24.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
169.0	182.0	170.0	182.0	167.0	120.0	65.0	44.0	15.0	4.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
497.0	512.0	377.0	394.0	169.0	54.0	23.0	13.0	7.0	13.0	
0.0	1.0	8.0	21.0	41.0	68.0	102.0	143.0	191.0	246.0	308.0
422.0	709.0	566.0	412.0	163.0	55.0	22.0	23.0	9.0	12.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
455.0	792.0	591.0	567.0	316.0	170.0	91.0	55.0	47.0	13.0	
0.0	1.0	8.0	21.0	40.0	66.0	99.0	139.0	186.0	240.0	301.0

736.0	1361.0	627.0	268.0	188.0	77.0	35.0	34.0	14.0	10.0		
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0	
1012.0	832.0	738.0	358.0	206.0	107.0	60.0	43.0	13.0	11.0		
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0	
1164.0	668.0	709.0	370.0	280.0	178.0	137.0	66.0	60.0	9.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	118.0	148.0	
1144.0	1047.0	839.0	575.0	246.0	77.0	89.0	43.0	34.0	17.0		
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0	
761.0	672.0	697.0	555.0	236.0	107.0	36.0	23.0	19.0	7.0		
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0	
525.0	276.0	193.0	345.0	255.0	79.0	37.0	38.0	7.0	4.0		
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0	
393.0	128.0	104.0	270.0	273.0	149.0	96.0	81.0	84.0	26.0		

[END]

[NAME]

C-62

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
917.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
214.0	156.0	190.0	127.0	194.0	115.0	74.0	30.0	35.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
937.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
186.0	355.0	144.0	161.0	91.0	31.0	0.0	0.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1214.0	351.0	54.0	0.0	22.0	20.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
552.0	316.0	221.0	214.0	187.0	73.0	24.0	17.0	16.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1354.0	201.0	114.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
401.0	376.0	319.0	239.0	137.0	127.0	35.0	25.0	1.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1351.0	595.0	246.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
916.0	423.0	308.0	214.0	96.0	101.0	14.0	32.0	70.0	6.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1406.0	425.0	326.0	63.0	0.0	29.0	0.0	0.0	0.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1031.0	432.0	417.0	217.0	42.0	42.0	34.0	16.0	14.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1195.0	474.0	146.0	28.0	24.0	1.0	20.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
732.0	403.0	160.0	258.0	69.0	75.0	122.0	32.0	29.0	39.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1195.0	428.0	235.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
779.0	278.0	191.0	201.0	68.0	206.0	105.0	11.0	41.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1227.0	555.0	252.0	63.0	0.0	0.0	24.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
996.0	391.0	229.0	138.0	128.0	84.0	21.0	42.0	23.0	29.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1471.0	413.0	95.0	62.0	24.0	75.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
901.0	483.0	299.0	263.0	140.0	56.0	0.0	11.0	0.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1097.0	224.0	29.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
326.0	199.0	330.0	203.0	174.0	114.0	18.0	0.0	28.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1243.0	51.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
357.0	56.0	223.0	70.0	34.0	161.0	130.0	28.0	87.0	9.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
191.0	129.0	67.0	190.0	86.0	41.0	104.0	39.0	25.0	29.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
176.0	141.0	84.0	219.0	123.0	121.0	120.0	38.0	41.0	8.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
526.0	402.0	334.0	359.0	312.0	176.0	83.0	64.0	41.0	15.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	50.0	67.0	87.0	110.0
420.0	247.0	394.0	286.0	354.0	172.0	108.0	62.0	40.0	42.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
738.0	543.0	748.0	647.0	364.0	155.0	78.0	38.0	16.0	16.0	
0.0	1.0	7.0	18.0	34.0	56.0	84.0	118.0	158.0	204.0	256.0

928.0	1125.0	929.0	405.0	252.0	110.0	30.0	26.0	20.0	16.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0
953.0	741.0	683.0	295.0	160.0	88.0	25.0	19.0	2.0	4.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
1177.0	636.0	513.0	273.0	142.0	70.0	38.0	21.0	9.0	2.0	
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0
1079.0	829.0	744.0	405.0	207.0	109.0	46.0	25.0	36.0	32.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
948.0	624.0	638.0	489.0	298.0	201.0	109.0	39.0	19.0	15.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	37.0	48.0	61.0
404.0	189.0	183.0	311.0	176.0	119.0	92.0	110.0	68.0	22.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
282.0	235.0	86.0	305.0	186.0	128.0	169.0	70.0	43.0	47.0	

[END]

[NAME]

C-64

655630WG

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
847.0	125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
209.0	237.0	170.0	134.0	167.0	147.0	76.0	28.0	9.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
882.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
160.0	349.0	133.0	143.0	83.0	41.0	15.0	10.0	2.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1261.0	313.0	83.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
546.0	296.0	230.0	155.0	95.0	137.0	91.0	66.0	3.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1457.0	285.0	90.0	2.0	0.0	13.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
519.0	360.0	377.0	145.0	119.0	87.0	56.0	60.0	59.0	55.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1611.0	446.0	214.0	17.0	0.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
947.0	467.0	359.0	143.0	111.0	95.0	60.0	13.0	37.0	29.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1568.0	432.0	152.0	32.0	56.0	18.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1039.0	410.0	334.0	160.0	181.0	93.0	21.0	13.0	8.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1483.0	337.0	107.0	15.0	20.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
861.0	358.0	129.0	253.0	175.0	110.0	59.0	30.0	0.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1462.0	346.0	82.0	59.0	0.0	28.0	0.0	23.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
726.0	513.0	298.0	224.0	79.0	119.0	16.0	0.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1467.0	250.0	342.0	42.0	0.0	20.0	0.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
844.0	498.0	243.0	118.0	203.0	76.0	75.0	28.0	1.0	25.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1406.0	491.0	104.0	63.0	0.0	22.0	24.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
906.0	473.0	204.0	261.0	199.0	40.0	28.0	0.0	0.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1183.0	235.0	54.0	32.0	0.0	3.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
467.0	214.0	179.0	97.0	68.0	130.0	226.0	90.0	42.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1033.0	334.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
198.0	326.0	201.0	68.0	49.0	162.0	98.0	13.0	57.0	10.0	
[RAIN]										
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
272.0	126.0	99.0	124.0	122.0	99.0	78.0	56.0	66.0	31.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
287.0	122.0	94.0	107.0	112.0	81.0	84.0	82.0	31.0	15.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
488.0	396.0	223.0	359.0	281.0	166.0	139.0	87.0	56.0	34.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
473.0	403.0	434.0	456.0	269.0	173.0	110.0	54.0	16.0	4.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
664.0	641.0	741.0	513.0	325.0	188.0	89.0	34.0	19.0	5.0	
0.0	1.0	7.0	18.0	35.0	58.0	87.0	122.0	163.0	210.0	263.0

661.0	1040.0	889.0	480.0	169.0	73.0	35.0	20.0	21.0	17.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0
747.0	511.0	629.0	311.0	225.0	132.0	37.0	27.0	9.0	7.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
1035.0	561.0	408.0	379.0	168.0	152.0	149.0	79.0	26.0	22.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
995.0	645.0	595.0	453.0	238.0	191.0	45.0	79.0	22.0	36.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	82.0	103.0
625.0	763.0	746.0	605.0	256.0	88.0	50.0	65.0	26.0	18.0	
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	100.0
366.0	519.0	462.0	309.0	149.0	36.0	38.0	24.0	30.0	12.0	
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
379.0	480.0	206.0	187.0	119.0	104.0	56.0	91.0	84.0	30.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
408.0	201.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	37.0	48.0	61.0
79.0	139.0	92.0	76.0	133.0	42.0	74.0	76.0	78.0	35.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
533.0	75.0	33.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
128.0	166.0	51.0	123.0	90.0	52.0	18.0	0.0	4.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1082.0	412.0	67.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
281.0	348.0	175.0	193.0	202.0	147.0	119.0	33.0	11.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1477.0	312.0	72.0	56.0	26.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
519.0	450.0	285.0	172.0	227.0	182.0	42.0	24.0	12.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
1185.0	497.0	246.0	85.0	39.0	15.0	19.0	37.0	20.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1037.0	447.0	291.0	84.0	110.0	41.0	84.0	15.0	2.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
794.0	500.0	377.0	178.0	76.0	94.0	14.0	0.0	17.0	5.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1251.0	387.0	211.0	78.0	20.0	0.0	23.0	0.0	48.0	31.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
850.0	466.0	105.0	89.0	78.0	6.0	0.0	0.0	20.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
484.0	367.0	147.0	120.0	175.0	87.0	34.0	46.0	149.0	46.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
972.0	290.0	110.0	44.0	11.0	19.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
490.0	251.0	146.0	85.0	149.0	103.0	116.0	56.0	79.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1076.0	307.0	218.0	37.0	26.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
417.0	467.0	234.0	152.0	101.0	65.0	93.0	39.0	52.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1035.0	503.0	285.0	79.0	20.0	0.0	23.0	0.0	0.0	26.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
769.0	416.0	320.0	135.0	68.0	171.0	29.0	29.0	1.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1067.0	539.0	187.0	56.0	26.0	0.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
604.0	417.0	252.0	267.0	138.0	71.0	57.0	79.0	1.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1097.0	562.0	89.0	17.0	2.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
638.0	310.0	102.0	140.0	99.0	81.0	178.0	45.0	26.0	17.0	
[RAIN]										
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
173.0	153.0	64.0	164.0	79.0	44.0	37.0	11.0	17.0	11.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
225.0	194.0	150.0	113.0	100.0	53.0	7.0	10.0	8.0	4.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
554.0	483.0	476.0	220.0	226.0	92.0	27.0	14.0	18.0	12.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
686.0	439.0	592.0	309.0	318.0	165.0	49.0	55.0	19.0	17.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0	235.0
1104.0	1004.0	1036.0	604.0	355.0	173.0	114.0	31.0	5.0	9.0	
0.0	1.0	8.0	22.0	43.0	71.0	106.0	148.0	197.0	253.0	316.0

981.0	1385.0	1028.0	708.0	489.0	226.0	106.0	18.0	31.0	8.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
954.0	826.0	559.0	306.0	194.0	99.0	64.0	48.0	53.0	14.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
1093.0	560.0	319.0	106.0	49.0	34.0	20.0	16.0	16.0	24.0	
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0
1205.0	612.0	414.0	197.0	57.0	46.0	35.0	49.0	20.0	6.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
1190.0	920.0	756.0	273.0	239.0	177.0	93.0	62.0	12.0	14.0	
0.0	1.0	6.0	15.0	28.0	45.0	66.0	91.0	120.0	153.0	190.0
865.0	788.0	789.0	352.0	149.0	94.0	57.0	9.0	17.0	16.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
725.0	519.0	383.0	444.0	236.0	183.0	67.0	37.0	21.0	5.0	

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0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
942.0	59.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	37.0	48.0	61.0
168.0	332.0	166.0	167.0	145.0	143.0	62.0	38.0	0.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1050.0	157.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
330.0	186.0	105.0	287.0	90.0	99.0	57.0	25.0	7.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1470.0	309.0	42.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
496.0	486.0	176.0	204.0	96.0	49.0	172.0	83.0	28.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1632.0	236.0	91.0	2.0	0.0	23.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
533.0	487.0	316.0	171.0	178.0	100.0	133.0	55.0	20.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1454.0	461.0	266.0	121.0	18.0	0.0	0.0	35.0	19.0	9.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	11.0
1162.0	514.0	275.0	211.0	76.0	31.0	34.0	0.0	2.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1093.0	613.0	97.0	173.0	100.0	76.0	89.0	1.0	1.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1441.0	435.0	117.0	83.0	51.0	40.0	2.0	63.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1232.0	361.0	263.0	67.0	35.0	42.0	36.0	0.0	26.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
925.0	403.0	203.0	251.0	127.0	69.0	21.0	20.0	39.0	31.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1197.0	584.0	222.0	39.0	0.0	19.0	32.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
936.0	463.0	272.0	154.0	45.0	45.0	151.0	28.0	22.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1473.0	445.0	137.0	2.0	65.0	30.0	1.0	0.0	28.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
927.0	461.0	307.0	213.0	68.0	56.0	106.0	17.0	0.0	3.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1318.0	578.0	209.0	101.0	75.0	58.0	0.0	33.0	1.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1291.0	473.0	282.0	141.0	83.0	15.0	24.0	35.0	0.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1364.0	354.0	256.0	41.0	55.0	36.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
912.0	511.0	217.0	160.0	84.0	37.0	101.0	46.0	1.0	55.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1450.0	336.0	165.0	3.0	1.0	2.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
788.0	355.0	211.0	108.0	99.0	51.0	166.0	62.0	0.0	19.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0	60.0	76.0
393.0	120.0	85.0	144.0	134.0	106.0	77.0	41.0	46.0	16.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	118.0	148.0
436.0	180.0	305.0	219.0	108.0	34.0	42.0	40.0	22.0	4.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0	235.0
666.0	508.0	571.0	263.0	132.0	58.0	21.0	30.0	34.0	10.0	
0.0	1.0	5.0	13.0	25.0	41.0	61.0	85.0	113.0	145.0	181.0
602.0	512.0	583.0	380.0	215.0	110.0	55.0	44.0	23.0	5.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
995.0	1064.0	1014.0	491.0	242.0	245.0	110.0	37.0	28.0	13.0	
0.0	1.0	7.0	18.0	35.0	58.0	87.0	122.0	163.0	210.0	263.0

996.0	1436.0	984.0	711.0	321.0	271.0	197.0	17.0	35.0	23.0
0.0	1.0	7.0	18.0	34.0	55.0	81.0	112.0	148.0	189.0
235.0	1490.0	1047.0	702.0	360.0	143.0	94.0	87.0	32.0	29.0
14.0	0.0	1.0	6.0	15.0	28.0	45.0	67.0	94.0	126.0
205.0	1562.0	973.0	534.0	254.0	138.0	34.0	20.0	24.0	6.0
35.0	0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0
211.0	1500.0	963.0	465.0	325.0	203.0	29.0	10.0	15.0	0.0
14.0	0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0
211.0	1509.0	1018.0	934.0	453.0	317.0	133.0	72.0	27.0	7.0
10.0	0.0	1.0	5.0	12.0	22.0	35.0	51.0	71.0	95.0
155.0	1128.0	627.0	904.0	401.0	220.0	120.0	55.0	37.0	20.0
8.0	0.0	1.0	3.0	6.0	10.0	16.0	24.0	34.0	46.0
76.0	1003.0	301.0	340.0	304.0	268.0	228.0	155.0	72.0	36.0
8.0									

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[NAME]

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
967.0	378.0	73.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
409.0	185.0	365.0	256.0	166.0	65.0	60.0	38.0	23.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1008.0	109.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
155.0	266.0	158.0	162.0	180.0	51.0	111.0	40.0	12.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1275.0	216.0	16.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
428.0	220.0	144.0	126.0	256.0	172.0	74.0	82.0	19.0	10.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1328.0	299.0	125.0	29.0	18.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
451.0	404.0	253.0	211.0	261.0	162.0	23.0	1.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1005.0	427.0	213.0	85.0	186.0	37.0	70.0	18.0	12.0	14.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
935.0	500.0	197.0	180.0	83.0	45.0	24.0	2.0	31.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1054.0	597.0	292.0	109.0	61.0	57.0	43.0	1.0	0.0	25.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1284.0	501.0	307.0	99.0	19.0	2.0	49.0	0.0	1.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
973.0	525.0	209.0	39.0	110.0	41.0	19.0	17.0	10.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
782.0	451.0	268.0	146.0	62.0	93.0	56.0	11.0	30.0	53.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1139.0	463.0	255.0	100.0	72.0	62.0	35.0	22.0	15.0	10.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1090.0	515.0	276.0	116.0	43.0	19.0	52.0	36.0	1.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1170.0	531.0	235.0	152.0	43.0	112.0	20.0	79.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1415.0	588.0	193.0	72.0	1.0	43.0	1.0	1.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1150.0	525.0	244.0	118.0	100.0	25.0	14.0	39.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1163.0	509.0	227.0	125.0	96.0	78.0	38.0	0.0	0.0	25.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
954.0	498.0	269.0	63.0	57.0	15.0	35.0	0.0	0.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
775.0	424.0	250.0	205.0	98.0	31.0	55.0	42.0	23.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1531.0	464.0	150.0	23.0	3.0	1.0	2.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
892.0	505.0	315.0	191.0	15.0	34.0	73.0	38.0	0.0	21.0	
[RAIN]										
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
615.0	280.0	295.0	255.0	139.0	96.0	108.0	52.0	18.0	10.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
449.0	257.0	302.0	155.0	61.0	41.0	31.0	15.0	6.0	1.0	
0.0	1.0	6.0	15.0	28.0	46.0	69.0	97.0	130.0	168.0	211.0
497.0	401.0	428.0	214.0	157.0	54.0	34.0	26.0	28.0	19.0	
0.0	1.0	5.0	12.0	22.0	36.0	54.0	76.0	102.0	132.0	166.0
703.0	416.0	566.0	269.0	271.0	149.0	75.0	29.0	26.0	12.0	
0.0	1.0	7.0	18.0	34.0	56.0	84.0	118.0	158.0	204.0	256.0
960.0	1127.0	1085.0	524.0	494.0	301.0	143.0	44.0	46.0	23.0	
0.0	1.0	7.0	19.0	37.0	61.0	91.0	127.0	169.0	217.0	271.0

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980.0 1074.0 1061.0 660.0 599.0 243.0 167.0 48.0 43.0 27.0
 0.0  1.0  7.0 18.0 35.0 58.0 87.0 122.0 163.0 210.0 263.0
1252.0 1012.0 872.0 347.0 224.0 128.0 64.0 37.0 31.0 17.0
 0.0  1.0  6.0 15.0 28.0 45.0 66.0 91.0 121.0 156.0 196.0
1544.0 1139.0 995.0 456.0 239.0 145.0 58.0 31.0 24.0 8.0
 0.0  1.0  7.0 18.0 35.0 58.0 87.0 122.0 163.0 210.0 263.0
1693.0 1652.0 1045.0 332.0 203.0 113.0 83.0 31.0 34.0 20.0
 0.0  1.0  6.0 15.0 28.0 45.0 66.0 91.0 120.0 153.0 190.0
1509.0 1221.0 896.0 295.0 235.0 187.0 121.0 57.0 16.0 12.0
 0.0  1.0  4.0  9.0 16.0 25.0 36.0 49.0 64.0 81.0 100.0
1196.0 721.0 630.0 537.0 260.0 206.0 121.0 63.0 42.0 17.0
 0.0  1.0  4.0 10.0 19.0 31.0 46.0 64.0 85.0 109.0 136.0
961.0 499.0 591.0 457.0 226.0 198.0 113.0 36.0 46.0 30.0
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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
975.0	142.0	54.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	4.0	7.0	11.0	16.0	22.0	29.0	37.0	46.0
261.0	199.0	238.0	170.0	165.0	118.0	104.0	24.0	38.0	23.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
962.0	45.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	29.0	39.0	51.0	65.0
247.0	227.0	229.0	66.0	109.0	45.0	59.0	16.0	0.0	17.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1146.0	94.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	5.0	8.0	12.0	17.0	23.0	30.0	38.0
294.0	123.0	142.0	262.0	147.0	147.0	70.0	33.0	10.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1340.0	329.0	67.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
493.0	354.0	297.0	161.0	179.0	34.0	131.0	50.0	17.0	24.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1231.0	332.0	232.0	127.0	23.0	56.0	0.0	18.0	0.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
868.0	568.0	123.0	103.0	91.0	88.0	97.0	41.0	0.0	15.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1160.0	619.0	228.0	195.0	14.0	55.0	0.0	40.0	0.0	1.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
1228.0	691.0	125.0	119.0	35.0	45.0	1.0	1.0	14.0	6.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1104.0	532.0	152.0	26.0	68.0	28.0	0.0	0.0	1.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
668.0	420.0	333.0	163.0	83.0	114.0	66.0	83.0	34.0	35.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1133.0	555.0	188.0	63.0	23.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
804.0	375.0	237.0	187.0	87.0	95.0	74.0	46.0	27.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1378.0	360.0	95.0	74.0	28.0	24.0	0.0	19.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
765.0	458.0	299.0	128.0	66.0	54.0	120.0	55.0	3.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1464.0	352.0	167.0	9.0	137.0	19.0	0.0	2.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
863.0	499.0	321.0	224.0	31.0	15.0	93.0	60.0	19.0	19.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1247.0	408.0	226.0	39.0	53.0	0.0	0.0	0.0	24.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
935.0	318.0	250.0	185.0	147.0	109.0	22.0	14.0	0.0	18.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1587.0	357.0	106.0	22.0	1.0	0.0	0.0	0.0	1.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
864.0	455.0	180.0	173.0	114.0	135.0	44.0	13.0	0.0	1.0	
[RAIN]										
0.0	1.0	3.0	6.0	10.0	15.0	22.0	31.0	42.0	55.0	70.0
482.0	185.0	189.0	148.0	70.0	61.0	91.0	70.0	39.0	9.0	
0.0	1.0	3.0	7.0	13.0	21.0	31.0	43.0	57.0	73.0	91.0
398.0	168.0	100.0	162.0	87.0	47.0	37.0	46.0	17.0	10.0	
0.0	1.0	4.0	10.0	19.0	31.0	46.0	64.0	85.0	109.0	136.0
339.0	193.0	262.0	172.0	173.0	86.0	57.0	33.0	20.0	5.0	
0.0	1.0	6.0	16.0	31.0	51.0	76.0	106.0	141.0	181.0	226.0
532.0	523.0	603.0	314.0	212.0	115.0	49.0	16.0	5.0	8.0	
0.0	1.0	9.0	24.0	46.0	75.0	111.0	154.0	204.0	261.0	325.0
831.0	1226.0	941.0	458.0	223.0	88.0	49.0	34.0	13.0	10.0	
0.0	1.0	7.0	18.0	34.0	55.0	81.0	113.0	151.0	195.0	245.0

975.0	1293.0	999.0	592.0	397.0	186.0	89.0	77.0	28.0	5.0	
0.0	1.0	6.0	15.0	28.0	45.0	67.0	94.0	126.0	163.0	205.0
969.0	950.0	555.0	327.0	251.0	100.0	55.0	57.0	25.0	13.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
1142.0	851.0	559.0	297.0	120.0	93.0	55.0	45.0	16.0	5.0	
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0
1201.0	800.0	564.0	270.0	96.0	61.0	34.0	37.0	31.0	12.0	
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0
1323.0	890.0	590.0	249.0	145.0	178.0	52.0	23.0	23.0	31.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	92.0	117.0	145.0
891.0	774.0	864.0	368.0	253.0	105.0	53.0	19.0	27.0	23.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
923.0	497.0	608.0	234.0	193.0	150.0	105.0	62.0	32.0	18.0	

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[SERIES]

0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
771.0	209.0	60.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	55.0
252.0	212.0	163.0	208.0	170.0	77.0	56.0	50.0	0.0	27.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
938.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	3.0	6.0	10.0	15.0	21.0	28.0	36.0	45.0	56.0
162.0	251.0	263.0	123.0	27.0	80.0	32.0	3.0	0.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1216.0	82.0	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
200.0	268.0	173.0	173.0	147.0	86.0	89.0	68.0	104.0	13.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1461.0	87.0	91.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	7.0	10.0	14.0	19.0	25.0
403.0	280.0	263.0	180.0	125.0	155.0	164.0	52.0	23.0	4.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	13.0
1257.0	377.0	264.0	41.0	85.0	23.0	11.0	0.0	0.0	16.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0	12.0	16.0
855.0	384.0	352.0	161.0	87.0	36.0	47.0	35.0	53.0	2.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1092.0	684.0	294.0	170.0	21.0	41.0	1.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1251.0	500.0	247.0	124.0	72.0	40.0	22.0	21.0	7.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1031.0	488.0	152.0	42.0	70.0	30.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
651.0	381.0	252.0	165.0	94.0	199.0	86.0	16.0	0.0	21.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1279.0	214.0	91.0	94.0	88.0	1.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
576.0	320.0	329.0	117.0	82.0	62.0	81.0	119.0	63.0	12.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1587.0	227.0	138.0	85.0	1.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
794.0	421.0	231.0	201.0	148.0	85.0	72.0	53.0	13.0	22.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1429.0	396.0	189.0	54.0	25.0	0.0	0.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	6.0	9.0	13.0	18.0	24.0	31.0
898.0	409.0	277.0	83.0	265.0	75.0	18.0	38.0	2.0	23.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1447.0	383.0	67.0	20.0	0.0	0.0	22.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
685.0	388.0	306.0	190.0	145.0	79.0	18.0	86.0	44.0	20.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
1385.0	301.0	156.0	33.0	0.0	0.0	3.0	0.0	0.0	0.0	
0.0	1.0	2.0	3.0	4.0	5.0	6.0	8.0	11.0	15.0	20.0
642.0	249.0	391.0	101.0	104.0	89.0	86.0	50.0	16.0	14.0	
[RAIN]										
0.0	1.0	4.0	9.0	16.0	25.0	36.0	49.0	64.0	81.0	101.0
271.0	317.0	258.0	153.0	152.0	66.0	30.0	41.0	15.0	2.0	
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0
259.0	146.0	295.0	71.0	48.0	39.0	24.0	19.0	50.0	15.0	
0.0	1.0	3.0	6.0	11.0	18.0	27.0	38.0	51.0	66.0	83.0
292.0	156.0	302.0	265.0	226.0	113.0	81.0	89.0	56.0	15.0	
0.0	1.0	4.0	9.0	16.0	26.0	39.0	55.0	74.0	96.0	121.0
348.0	347.0	437.0	314.0	250.0	139.0	75.0	66.0	49.0	27.0	
0.0	1.0	5.0	12.0	22.0	35.0	51.0	70.0	93.0	120.0	151.0
571.0	756.0	876.0	607.0	414.0	263.0	80.0	80.0	89.0	39.0	
0.0	1.0	5.0	12.0	23.0	38.0	57.0	80.0	107.0	138.0	173.0

861.0	912.0	860.0	570.0	485.0	390.0	138.0	131.0	32.0	34.0		
0.0	1.0	5.0	12.0	22.0	35.0	51.0	71.0	95.0	123.0	155.0	
1046.0	618.0	625.0	318.0	195.0	153.0	44.0	71.0	50.0	30.0		
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0	
1241.0	612.0	440.0	215.0	84.0	66.0	25.0	12.0	58.0	34.0		
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0	
1448.0	525.0	313.0	256.0	111.0	82.0	41.0	5.0	25.0	24.0		
0.0	1.0	4.0	9.0	17.0	28.0	42.0	59.0	79.0	102.0	128.0	
1062.0	640.0	558.0	377.0	215.0	132.0	70.0	28.0	29.0	14.0		
0.0	1.0	4.0	9.0	16.0	25.0	37.0	52.0	70.0	91.0	115.0	
706.0	502.0	461.0	389.0	165.0	128.0	119.0	94.0	63.0	18.0		
0.0	1.0	5.0	12.0	22.0	35.0	52.0	73.0	98.0	127.0	160.0	
767.0	486.0	467.0	403.0	238.0	141.0	51.0	37.0	55.0	21.0		

[END]

Appendix D: Conditioned 1st-Order Markov Transition Probabilities

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	Jan				Feb			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	1.000	0.000	1.000	0.000	0.000	0.005	0.995
653190	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
653300	0.333	0.667	0.009	0.991	0.000	1.000	0.005	0.995
653350	0.000	1.000	0.005	0.995	0.000	1.000	0.019	0.981
653380	0.000	1.000	0.014	0.986	0.500	0.500	0.013	0.987
653440	0.167	0.833	0.024	0.976	0.000	1.000	0.045	0.955
653520	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
653550	0.000	0.000	0.000	1.000	0.000	1.000	0.029	0.971
653570	0.000	0.000	0.009	0.991	0.000	0.000	0.000	1.000
653610	0.000	1.000	0.022	0.978	0.000	1.000	0.014	0.986
653760	0.000	1.000	0.028	0.972	0.167	0.833	0.049	0.951
653800	0.000	1.000	0.017	0.983	0.200	0.800	0.051	0.949
653870	0.167	0.833	0.021	0.979	0.000	1.000	0.028	0.972
654720	0.000	1.000	0.011	0.989	0.000	0.000	0.017	0.983
655010	0.000	1.000	0.004	0.996	0.000	1.000	0.012	0.988
655020	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655030	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655050	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655070	0.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000
655100	0.000	0.000	0.000	1.000	0.000	1.000	0.005	0.995
655160	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655180	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655220	0.000	1.000	0.004	0.996	0.000	1.000	0.019	0.981
655280	0.000	1.000	0.007	0.993	0.000	1.000	0.007	0.993
655360	0.250	0.750	0.013	0.987	0.000	1.000	0.022	0.978
655450	0.250	0.750	0.022	0.978	0.000	1.000	0.010	0.990
655480	0.250	0.750	0.025	0.975	0.400	0.600	0.057	0.943
655550	0.222	0.778	0.028	0.972	0.250	0.750	0.019	0.981
655570	0.250	0.750	0.060	0.940	0.182	0.818	0.099	0.901
655600	0.000	1.000	0.048	0.952	0.167	0.833	0.048	0.952
655620	0.000	1.000	0.054	0.946	0.000	1.000	0.042	0.958
655630	0.200	0.800	0.045	0.955	0.000	1.000	0.038	0.962
655780	0.313	0.688	0.050	0.950	0.308	0.692	0.061	0.939
655850	0.286	0.714	0.068	0.932	0.143	0.857	0.048	0.952
655920	0.148	0.852	0.155	0.845	0.200	0.800	0.070	0.930
655940	0.125	0.875	0.071	0.929	0.000	1.000	0.048	0.952
655990	0.333	0.667	0.034	0.966	0.000	1.000	0.040	0.960

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	Mar				Apr			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	1.000	0.013	0.987	0.000	1.000	0.039	0.961
653190	0.286	0.714	0.025	0.975	0.188	0.813	0.140	0.860
653300	0.200	0.800	0.060	0.940	0.333	0.667	0.085	0.915
653350	0.188	0.813	0.119	0.881	0.375	0.625	0.129	0.871
653380	0.167	0.833	0.131	0.869	0.211	0.789	0.193	0.807
653440	0.192	0.808	0.136	0.864	0.190	0.810	0.192	0.808
653520	0.000	1.000	0.011	0.989	0.000	1.000	0.076	0.924
653550	0.333	0.667	0.051	0.949	0.000	1.000	0.107	0.893
653570	0.000	1.000	0.053	0.947	0.000	1.000	0.057	0.943
653610	0.091	0.909	0.071	0.929	0.176	0.824	0.255	0.745
653760	0.059	0.941	0.136	0.864	0.273	0.727	0.180	0.820
653800	0.167	0.833	0.190	0.810	0.167	0.833	0.208	0.792
653870	0.263	0.737	0.107	0.893	0.125	0.875	0.106	0.894
654720	0.000	1.000	0.028	0.972	0.000	1.000	0.119	0.881
655010	0.000	1.000	0.005	0.995	0.000	0.000	0.000	1.000
655020	0.000	1.000	0.022	0.978	0.000	1.000	0.008	0.992
655030	0.000	1.000	0.025	0.975	0.200	0.800	0.022	0.978
655050	0.333	0.667	0.023	0.977	0.333	0.667	0.039	0.961
655070	0.000	1.000	0.017	0.983	0.000	1.000	0.033	0.967
655100	0.250	0.750	0.037	0.963	0.000	1.000	0.037	0.963
655160	0.400	0.600	0.023	0.977	0.273	0.727	0.078	0.922
655180	0.333	0.667	0.044	0.956	0.000	1.000	0.056	0.944
655220	0.300	0.700	0.042	0.958	0.200	0.800	0.113	0.887
655280	0.167	0.833	0.038	0.962	0.500	0.500	0.058	0.942
655360	0.091	0.909	0.072	0.928	0.000	1.000	0.104	0.896
655450	0.083	0.917	0.133	0.867	0.313	0.688	0.154	0.846
655480	0.182	0.818	0.170	0.830	0.167	0.833	0.098	0.902
655550	0.167	0.833	0.139	0.861	0.000	1.000	0.070	0.930
655570	0.190	0.810	0.163	0.837	0.111	0.889	0.146	0.854
655600	0.143	0.857	0.140	0.860	0.000	1.000	0.098	0.902
655620	0.214	0.786	0.130	0.870	0.167	0.833	0.076	0.924
655630	0.263	0.737	0.188	0.813	0.400	0.600	0.059	0.941
655780	0.273	0.727	0.123	0.877	0.188	0.813	0.140	0.860
655850	0.278	0.722	0.165	0.835	0.000	1.000	0.132	0.868
655920	0.217	0.783	0.146	0.854	0.154	0.846	0.156	0.844
655940	0.000	1.000	0.111	0.889	0.125	0.875	0.105	0.895
655990	0.000	1.000	0.068	0.932	0.000	1.000	0.063	0.938

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	May				Jun			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.235	0.765	0.093	0.907	0.270	0.730	0.297	0.703
653190	0.375	0.625	0.144	0.856	0.444	0.556	0.293	0.707
653300	0.250	0.750	0.203	0.797	0.432	0.568	0.286	0.714
653350	0.192	0.808	0.196	0.804	0.579	0.421	0.247	0.753
653380	0.367	0.633	0.164	0.836	0.316	0.684	0.347	0.653
653440	0.243	0.757	0.250	0.750	0.423	0.577	0.484	0.516
653520	0.167	0.833	0.169	0.831	0.250	0.750	0.349	0.651
653550	0.182	0.818	0.323	0.677	0.571	0.429	0.313	0.688
653570	0.167	0.833	0.125	0.875	0.000	1.000	0.250	0.750
653610	0.300	0.700	0.179	0.821	0.370	0.630	0.358	0.642
653760	0.118	0.882	0.173	0.827	0.429	0.571	0.349	0.651
653800	0.214	0.786	0.186	0.814	0.200	0.800	0.250	0.750
653870	0.314	0.686	0.214	0.786	0.200	0.800	0.315	0.685
654720	0.500	0.500	0.030	0.970	0.571	0.429	0.222	0.778
655010	0.167	0.833	0.018	0.982	0.133	0.867	0.122	0.878
655020	0.167	0.833	0.030	0.970	0.118	0.882	0.150	0.850
655030	0.200	0.800	0.122	0.878	0.182	0.818	0.238	0.762
655050	0.333	0.667	0.087	0.913	0.188	0.813	0.172	0.828
655070	0.091	0.909	0.088	0.912	0.345	0.655	0.222	0.778
655100	0.148	0.852	0.159	0.841	0.388	0.612	0.319	0.681
655160	0.263	0.737	0.100	0.900	0.313	0.688	0.235	0.765
655180	0.154	0.846	0.126	0.874	0.375	0.625	0.381	0.619
655220	0.154	0.846	0.164	0.836	0.333	0.667	0.348	0.652
655280	0.000	1.000	0.073	0.927	0.375	0.625	0.233	0.767
655360	0.267	0.733	0.233	0.767	0.313	0.688	0.208	0.792
655450	0.063	0.938	0.197	0.803	0.071	0.929	0.378	0.622
655480	0.292	0.708	0.225	0.775	0.333	0.667	0.271	0.729
655550	0.067	0.933	0.127	0.873	0.154	0.846	0.191	0.809
655570	0.370	0.630	0.235	0.765	0.500	0.500	0.219	0.781
655600	0.176	0.824	0.213	0.787	0.455	0.545	0.206	0.794
655620	0.238	0.762	0.210	0.790	0.375	0.625	0.222	0.778
655630	0.190	0.810	0.250	0.750	0.500	0.500	0.189	0.811
655780	0.413	0.587	0.272	0.728	0.509	0.491	0.676	0.324
655850	0.400	0.600	0.352	0.648	0.524	0.476	0.478	0.522
655920	0.515	0.485	0.254	0.746	0.607	0.393	0.321	0.679
655940	0.444	0.556	0.283	0.717	0.593	0.407	0.500	0.500
655990	0.522	0.478	0.224	0.776	0.500	0.500	0.500	0.500

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	Jul				Aug			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.438	0.563	0.358	0.642	0.500	0.500	0.457	0.543
653190	0.610	0.390	0.478	0.522	0.657	0.343	0.483	0.517
653300	0.444	0.556	0.400	0.600	0.541	0.459	0.455	0.545
653350	0.455	0.545	0.309	0.691	0.588	0.412	0.205	0.795
653380	0.394	0.606	0.310	0.690	0.333	0.667	0.146	0.854
653440	0.500	0.500	0.100	0.900	0.286	0.714	0.108	0.892
653520	0.286	0.714	0.327	0.673	0.267	0.733	0.257	0.743
653550	0.529	0.471	0.368	0.632	0.545	0.455	0.417	0.583
653570	0.455	0.545	0.227	0.773	0.000	1.000	0.538	0.462
653610	0.556	0.444	0.476	0.524	0.565	0.435	0.615	0.385
653760	0.516	0.484	0.350	0.650	0.294	0.706	0.278	0.722
653800	0.267	0.733	0.189	0.811	0.333	0.667	0.219	0.781
653870	0.526	0.474	0.101	0.899	0.000	1.000	0.067	0.933
654720	0.400	0.600	0.090	0.910	0.333	0.667	0.100	0.900
655010	0.111	0.889	0.316	0.684	0.357	0.643	0.292	0.708
655020	0.361	0.639	0.296	0.704	0.280	0.720	0.327	0.673
655030	0.273	0.727	0.371	0.629	0.281	0.719	0.434	0.566
655050	0.261	0.739	0.383	0.617	0.556	0.444	0.417	0.583
655070	0.158	0.842	0.306	0.694	0.419	0.581	0.450	0.550
655100	0.422	0.578	0.400	0.600	0.537	0.463	0.474	0.526
655160	0.425	0.575	0.362	0.638	0.487	0.513	0.526	0.474
655180	0.462	0.538	0.333	0.667	0.462	0.538	0.433	0.567
655220	0.395	0.605	0.368	0.632	0.382	0.618	0.457	0.543
655280	0.414	0.586	0.333	0.667	0.688	0.313	0.464	0.536
655360	0.375	0.625	0.382	0.618	0.536	0.464	0.457	0.543
655450	0.333	0.667	0.196	0.804	0.111	0.889	0.162	0.838
655480	0.659	0.341	0.405	0.595	0.622	0.378	0.500	0.500
655550	0.333	0.667	0.148	0.852	0.455	0.545	0.219	0.781
655570	0.600	0.400	0.150	0.850	0.412	0.588	0.228	0.772
655600	0.593	0.407	0.262	0.738	0.375	0.625	0.263	0.737
655620	0.577	0.423	0.226	0.774	0.294	0.706	0.220	0.780
655630	0.417	0.583	0.130	0.870	0.389	0.611	0.324	0.676
655780	0.250	0.750	0.149	0.851	0.267	0.733	0.130	0.870
655850	0.500	0.500	0.267	0.733	0.111	0.889	0.156	0.844
655920	0.467	0.533	0.273	0.727	0.581	0.419	0.333	0.667
655940	0.522	0.478	0.233	0.767	0.571	0.429	0.159	0.841
655990	0.579	0.421	0.140	0.860	0.400	0.600	0.111	0.889

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	Sep				Oct			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.358	0.642	0.444	0.556	0.267	0.733	0.099	0.901
653190	0.635	0.365	0.511	0.489	0.490	0.510	0.162	0.838
653300	0.500	0.500	0.418	0.582	0.400	0.600	0.210	0.790
653350	0.419	0.581	0.395	0.605	0.283	0.717	0.248	0.752
653380	0.450	0.550	0.327	0.673	0.358	0.642	0.273	0.727
653440	0.362	0.638	0.225	0.775	0.375	0.625	0.237	0.763
653520	0.460	0.540	0.403	0.597	0.517	0.483	0.067	0.933
653550	0.733	0.267	0.462	0.538	0.393	0.607	0.286	0.714
653570	0.447	0.553	0.392	0.608	0.400	0.600	0.133	0.867
653610	0.625	0.375	0.469	0.531	0.429	0.571	0.233	0.767
653760	0.473	0.527	0.330	0.670	0.283	0.717	0.254	0.746
653800	0.333	0.667	0.301	0.699	0.449	0.551	0.358	0.642
653870	0.333	0.667	0.189	0.811	0.205	0.795	0.180	0.820
654720	0.444	0.556	0.125	0.875	0.250	0.750	0.167	0.833
655010	0.319	0.681	0.232	0.768	0.100	0.900	0.035	0.965
655020	0.233	0.767	0.273	0.727	0.200	0.800	0.079	0.921
655030	0.114	0.886	0.261	0.739	0.172	0.828	0.099	0.901
655050	0.289	0.711	0.472	0.528	0.120	0.880	0.142	0.858
655070	0.424	0.576	0.269	0.731	0.211	0.789	0.075	0.925
655100	0.486	0.514	0.435	0.565	0.413	0.587	0.119	0.881
655160	0.393	0.607	0.302	0.698	0.188	0.813	0.138	0.862
655180	0.469	0.531	0.409	0.591	0.167	0.833	0.123	0.877
655220	0.435	0.565	0.409	0.591	0.294	0.706	0.192	0.808
655280	0.455	0.545	0.517	0.483	0.409	0.591	0.227	0.773
655360	0.353	0.647	0.439	0.561	0.533	0.467	0.173	0.827
655450	0.406	0.594	0.305	0.695	0.273	0.727	0.224	0.776
655480	0.594	0.406	0.571	0.429	0.490	0.510	0.240	0.760
655550	0.532	0.468	0.303	0.697	0.280	0.720	0.172	0.828
655570	0.344	0.656	0.326	0.674	0.389	0.611	0.349	0.651
655600	0.419	0.581	0.302	0.698	0.323	0.677	0.247	0.753
655620	0.438	0.563	0.222	0.778	0.341	0.659	0.266	0.734
655630	0.500	0.500	0.217	0.783	0.219	0.781	0.291	0.709
655780	0.391	0.609	0.223	0.777	0.400	0.600	0.215	0.785
655850	0.433	0.567	0.386	0.614	0.480	0.520	0.400	0.600
655920	0.709	0.291	0.361	0.639	0.579	0.421	0.378	0.622
655940	0.542	0.458	0.273	0.727	0.408	0.592	0.444	0.556
655990	0.381	0.619	0.195	0.805	0.333	0.667	0.225	0.775

**1st-Order Conditioned Markov Transition Probabilities
Cold Pacific Sea Surface Temperature Event**

Gauge	Nov				Dec			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	1.000	0.004	0.996	0.000	0.000	0.000	1.000
653190	0.000	1.000	0.018	0.982	0.000	0.000	0.000	1.000
653300	0.250	0.750	0.009	0.991	0.000	1.000	0.022	0.978
653350	0.000	1.000	0.037	0.963	0.000	1.000	0.021	0.979
653380	0.250	0.750	0.055	0.945	0.000	1.000	0.079	0.921
653440	0.320	0.680	0.099	0.901	0.176	0.824	0.055	0.945
653520	0.000	1.000	0.006	0.994	0.000	0.000	0.000	1.000
653550	0.200	0.800	0.059	0.941	0.000	1.000	0.014	0.986
653570	0.000	1.000	0.018	0.982	0.000	1.000	0.009	0.991
653610	0.167	0.833	0.024	0.976	0.000	1.000	0.016	0.984
653760	0.167	0.833	0.054	0.946	0.000	1.000	0.030	0.970
653800	0.067	0.933	0.103	0.897	0.000	1.000	0.048	0.952
653870	0.200	0.800	0.066	0.934	0.182	0.818	0.035	0.965
654720	0.000	1.000	0.069	0.931	0.000	1.000	0.037	0.963
655010	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655020	0.000	1.000	0.005	0.995	0.000	0.000	0.000	1.000
655030	0.000	1.000	0.018	0.982	0.333	0.667	0.004	0.996
655050	0.250	0.750	0.020	0.980	0.000	0.000	0.000	1.000
655070	0.000	1.000	0.010	0.990	0.000	1.000	0.005	0.995
655100	0.250	0.750	0.017	0.983	0.000	1.000	0.018	0.982
655160	0.250	0.750	0.014	0.986	0.000	0.000	0.000	1.000
655180	0.250	0.750	0.027	0.973	0.000	1.000	0.006	0.994
655220	0.000	1.000	0.028	0.972	0.250	0.750	0.014	0.986
655280	0.091	0.909	0.070	0.930	0.500	0.500	0.007	0.993
655360	0.077	0.923	0.067	0.933	0.500	0.500	0.005	0.995
655450	0.182	0.818	0.165	0.835	0.250	0.750	0.031	0.969
655480	0.200	0.800	0.079	0.921	0.182	0.818	0.049	0.951
655550	0.083	0.917	0.059	0.941	0.100	0.900	0.046	0.954
655570	0.511	0.489	0.275	0.725	0.211	0.789	0.128	0.872
655600	0.188	0.813	0.098	0.902	0.143	0.857	0.085	0.915
655620	0.385	0.615	0.108	0.892	0.071	0.929	0.080	0.920
655630	0.280	0.720	0.144	0.856	0.222	0.778	0.043	0.957
655780	0.282	0.718	0.340	0.660	0.328	0.672	0.170	0.830
655850	0.500	0.500	0.301	0.699	0.400	0.600	0.170	0.830
655920	0.554	0.446	0.330	0.670	0.383	0.617	0.176	0.824
655940	0.444	0.556	0.358	0.642	0.222	0.778	0.130	0.870
655990	0.324	0.676	0.269	0.731	0.250	0.750	0.112	0.888

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	Jan				Feb			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	0.000	0.000	1.000	0.000	1.000	0.017	0.983
653190	0.000	1.000	0.007	0.993	0.400	0.600	0.011	0.989
653300	0.500	0.500	0.006	0.994	0.000	1.000	0.009	0.991
653350	0.125	0.875	0.023	0.977	0.214	0.786	0.035	0.965
653380	0.000	1.000	0.023	0.977	0.105	0.895	0.054	0.946
653440	0.167	0.833	0.049	0.951	0.207	0.793	0.062	0.938
653520	0.000	1.000	0.005	0.995	0.000	1.000	0.008	0.992
653550	0.000	0.000	0.006	0.994	0.000	1.000	0.031	0.969
653570	0.500	0.500	0.005	0.995	0.167	0.833	0.023	0.977
653610	0.000	0.000	0.005	0.995	0.000	1.000	0.019	0.981
653760	0.000	1.000	0.009	0.991	0.083	0.917	0.050	0.950
653800	0.000	0.000	0.009	0.991	0.263	0.737	0.094	0.906
653870	0.182	0.818	0.028	0.972	0.111	0.889	0.054	0.946
654720	0.000	1.000	0.043	0.957	0.091	0.909	0.085	0.915
655010	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655020	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655030	0.000	1.000	0.000	1.000	0.000	1.000	0.006	0.994
655050	0.000	0.000	0.000	1.000	0.000	1.000	0.013	0.987
655070	0.000	0.000	0.000	1.000	0.000	1.000	0.007	0.993
655100	0.000	1.000	0.007	0.993	0.200	0.800	0.012	0.988
655160	0.000	0.000	0.000	1.000	0.000	1.000	0.003	0.997
655180	0.000	0.000	0.000	1.000	0.000	0.000	0.013	0.987
655220	0.000	1.000	0.012	0.988	0.000	1.000	0.014	0.986
655280	0.200	0.800	0.016	0.984	0.000	1.000	0.021	0.979
655360	0.000	1.000	0.000	1.000	0.143	0.857	0.029	0.971
655450	0.000	1.000	0.008	0.992	0.294	0.706	0.042	0.958
655480	0.000	1.000	0.004	0.996	0.138	0.862	0.087	0.913
655550	0.000	1.000	0.021	0.979	0.091	0.909	0.048	0.952
655570	0.167	0.833	0.035	0.965	0.140	0.860	0.156	0.844
655600	0.000	1.000	0.013	0.987	0.125	0.875	0.119	0.881
655620	0.000	1.000	0.023	0.977	0.080	0.920	0.094	0.906
655630	0.000	1.000	0.022	0.978	0.050	0.950	0.088	0.912
655780	0.167	0.833	0.068	0.932	0.250	0.750	0.109	0.891
655850	0.118	0.882	0.064	0.936	0.171	0.829	0.191	0.809
655920	0.325	0.675	0.095	0.905	0.140	0.860	0.145	0.855
655940	0.286	0.714	0.030	0.970	0.083	0.917	0.038	0.962
655990	0.267	0.733	0.037	0.963	0.125	0.875	0.093	0.907

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	Mar				Apr			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.143	0.857	0.031	0.969	0.227	0.773	0.101	0.899
653190	0.270	0.730	0.060	0.940	0.330	0.670	0.225	0.775
653300	0.209	0.791	0.093	0.907	0.213	0.788	0.168	0.832
653350	0.250	0.750	0.138	0.862	0.312	0.688	0.256	0.744
653380	0.152	0.848	0.195	0.805	0.300	0.700	0.292	0.708
653440	0.233	0.767	0.136	0.864	0.292	0.708	0.245	0.755
653520	0.286	0.714	0.038	0.962	0.152	0.848	0.131	0.869
653550	0.050	0.950	0.106	0.894	0.268	0.732	0.247	0.753
653570	0.200	0.800	0.068	0.932	0.264	0.736	0.199	0.801
653610	0.128	0.872	0.124	0.876	0.247	0.753	0.241	0.759
653760	0.235	0.765	0.103	0.897	0.282	0.718	0.255	0.745
653800	0.154	0.846	0.074	0.926	0.152	0.848	0.223	0.777
653870	0.170	0.830	0.108	0.892	0.302	0.698	0.204	0.796
654720	0.150	0.850	0.097	0.903	0.214	0.786	0.157	0.843
655010	0.250	0.750	0.017	0.983	0.000	1.000	0.031	0.969
655020	0.000	1.000	0.018	0.982	0.056	0.944	0.048	0.952
655030	0.250	0.750	0.031	0.969	0.114	0.886	0.076	0.924
655050	0.333	0.667	0.039	0.961	0.304	0.696	0.076	0.924
655070	0.350	0.650	0.039	0.961	0.159	0.841	0.112	0.888
655100	0.207	0.793	0.064	0.936	0.268	0.732	0.148	0.852
655160	0.190	0.810	0.040	0.960	0.224	0.776	0.104	0.896
655180	0.364	0.636	0.048	0.952	0.310	0.690	0.127	0.873
655220	0.222	0.778	0.069	0.931	0.211	0.789	0.172	0.828
655280	0.115	0.885	0.094	0.906	0.273	0.727	0.224	0.776
655360	0.200	0.800	0.095	0.905	0.211	0.789	0.201	0.799
655450	0.268	0.732	0.128	0.872	0.224	0.776	0.223	0.777
655480	0.268	0.732	0.218	0.782	0.242	0.758	0.292	0.708
655550	0.171	0.829	0.147	0.853	0.270	0.730	0.256	0.744
655570	0.416	0.584	0.248	0.752	0.288	0.712	0.332	0.668
655600	0.203	0.797	0.219	0.781	0.205	0.795	0.258	0.742
655620	0.299	0.701	0.196	0.804	0.241	0.759	0.250	0.750
655630	0.259	0.741	0.207	0.793	0.189	0.811	0.290	0.710
655780	0.233	0.767	0.186	0.814	0.324	0.676	0.286	0.714
655850	0.314	0.686	0.212	0.788	0.333	0.667	0.311	0.689
655920	0.173	0.827	0.127	0.873	0.395	0.605	0.242	0.758
655940	0.077	0.923	0.090	0.910	0.167	0.833	0.165	0.835
655990	0.094	0.906	0.103	0.897	0.250	0.750	0.192	0.808

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	May				Jun			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.228	0.772	0.289	0.711	0.290	0.710	0.308	0.692
653190	0.333	0.667	0.242	0.758	0.375	0.625	0.370	0.630
653300	0.240	0.760	0.359	0.641	0.350	0.650	0.399	0.601
653350	0.303	0.697	0.312	0.688	0.470	0.530	0.398	0.602
653380	0.308	0.692	0.324	0.676	0.382	0.618	0.390	0.610
653440	0.368	0.632	0.367	0.633	0.545	0.455	0.411	0.589
653520	0.341	0.659	0.166	0.834	0.321	0.679	0.222	0.778
653550	0.455	0.545	0.271	0.729	0.377	0.623	0.341	0.659
653570	0.344	0.656	0.258	0.742	0.316	0.684	0.333	0.667
653610	0.262	0.738	0.332	0.668	0.412	0.588	0.439	0.561
653760	0.297	0.703	0.291	0.709	0.442	0.558	0.379	0.621
653800	0.283	0.717	0.241	0.759	0.333	0.667	0.327	0.673
653870	0.233	0.767	0.330	0.670	0.415	0.585	0.328	0.672
654720	0.310	0.690	0.146	0.854	0.373	0.627	0.303	0.697
655010	0.200	0.800	0.089	0.911	0.196	0.804	0.184	0.816
655020	0.211	0.789	0.122	0.878	0.177	0.823	0.253	0.747
655030	0.227	0.773	0.181	0.819	0.243	0.757	0.309	0.691
655050	0.250	0.750	0.174	0.826	0.250	0.750	0.235	0.765
655070	0.154	0.846	0.212	0.788	0.314	0.686	0.282	0.718
655100	0.207	0.793	0.247	0.753	0.256	0.744	0.335	0.665
655160	0.278	0.722	0.230	0.770	0.229	0.771	0.327	0.673
655180	0.237	0.763	0.214	0.786	0.234	0.766	0.360	0.640
655220	0.297	0.703	0.250	0.750	0.205	0.795	0.295	0.705
655280	0.197	0.803	0.315	0.685	0.189	0.811	0.335	0.665
655360	0.232	0.768	0.309	0.691	0.185	0.815	0.297	0.703
655450	0.273	0.727	0.308	0.692	0.336	0.664	0.335	0.665
655480	0.325	0.675	0.322	0.678	0.379	0.621	0.363	0.637
655550	0.281	0.719	0.232	0.768	0.341	0.659	0.339	0.661
655570	0.479	0.521	0.444	0.556	0.514	0.486	0.432	0.568
655600	0.253	0.747	0.361	0.639	0.414	0.586	0.385	0.615
655620	0.344	0.656	0.350	0.650	0.388	0.612	0.364	0.636
655630	0.308	0.692	0.310	0.690	0.435	0.565	0.309	0.691
655780	0.466	0.534	0.437	0.563	0.584	0.416	0.459	0.541
655850	0.489	0.511	0.490	0.510	0.647	0.353	0.465	0.535
655920	0.576	0.424	0.479	0.521	0.643	0.357	0.481	0.519
655940	0.357	0.643	0.345	0.655	0.625	0.375	0.447	0.553
655990	0.519	0.481	0.371	0.629	0.517	0.483	0.462	0.538

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	Jul				Aug			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.406	0.594	0.402	0.598	0.513	0.487	0.455	0.545
653190	0.528	0.472	0.464	0.536	0.563	0.437	0.580	0.420
653300	0.558	0.442	0.391	0.609	0.512	0.488	0.436	0.564
653350	0.525	0.475	0.289	0.711	0.431	0.569	0.303	0.697
653380	0.423	0.577	0.328	0.672	0.420	0.580	0.255	0.745
653440	0.417	0.583	0.197	0.803	0.385	0.615	0.162	0.838
653520	0.348	0.652	0.318	0.682	0.360	0.640	0.389	0.611
653550	0.470	0.530	0.405	0.595	0.596	0.404	0.627	0.373
653570	0.390	0.610	0.453	0.547	0.496	0.504	0.449	0.551
653610	0.571	0.429	0.535	0.465	0.629	0.371	0.472	0.528
653760	0.549	0.451	0.390	0.610	0.458	0.542	0.406	0.594
653800	0.393	0.607	0.181	0.819	0.397	0.603	0.140	0.860
653870	0.340	0.660	0.157	0.842	0.275	0.725	0.160	0.840
654720	0.300	0.700	0.125	0.875	0.200	0.800	0.157	0.843
655010	0.175	0.825	0.315	0.685	0.338	0.662	0.353	0.647
655020	0.323	0.677	0.378	0.622	0.415	0.585	0.474	0.526
655030	0.293	0.707	0.411	0.589	0.460	0.540	0.472	0.528
655050	0.338	0.662	0.388	0.612	0.456	0.544	0.500	0.500
655070	0.351	0.649	0.412	0.588	0.472	0.528	0.503	0.497
655100	0.351	0.649	0.405	0.595	0.523	0.477	0.529	0.471
655160	0.352	0.648	0.390	0.610	0.518	0.482	0.502	0.498
655180	0.308	0.692	0.410	0.590	0.527	0.473	0.516	0.484
655220	0.387	0.613	0.378	0.622	0.482	0.518	0.435	0.565
655280	0.475	0.525	0.393	0.607	0.585	0.415	0.532	0.468
655360	0.336	0.664	0.315	0.685	0.437	0.563	0.355	0.645
655450	0.326	0.674	0.215	0.785	0.372	0.628	0.201	0.799
655480	0.571	0.429	0.431	0.569	0.584	0.416	0.576	0.424
655550	0.349	0.651	0.216	0.784	0.429	0.571	0.250	0.750
655570	0.441	0.559	0.204	0.796	0.451	0.549	0.300	0.700
655600	0.470	0.530	0.246	0.754	0.469	0.531	0.371	0.629
655620	0.341	0.659	0.204	0.796	0.426	0.574	0.207	0.793
655630	0.308	0.692	0.232	0.768	0.402	0.598	0.231	0.769
655780	0.492	0.508	0.163	0.837	0.382	0.618	0.153	0.847
655850	0.564	0.436	0.279	0.721	0.526	0.474	0.289	0.711
655920	0.525	0.475	0.249	0.751	0.612	0.388	0.433	0.567
655940	0.412	0.587	0.215	0.785	0.471	0.529	0.220	0.780
655990	0.425	0.575	0.186	0.814	0.432	0.568	0.199	0.801

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	Sep				Oct			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.408	0.592	0.464	0.536	0.281	0.719	0.090	0.910
653190	0.605	0.395	0.612	0.388	0.376	0.624	0.219	0.781
653300	0.566	0.434	0.531	0.469	0.419	0.581	0.206	0.794
653350	0.439	0.561	0.432	0.568	0.385	0.615	0.285	0.715
653380	0.463	0.537	0.394	0.606	0.352	0.648	0.271	0.729
653440	0.402	0.598	0.336	0.664	0.383	0.617	0.318	0.682
653520	0.500	0.500	0.462	0.538	0.200	0.800	0.138	0.862
653550	0.545	0.455	0.500	0.500	0.270	0.730	0.278	0.722
653570	0.440	0.560	0.463	0.537	0.333	0.667	0.234	0.766
653610	0.488	0.512	0.574	0.426	0.373	0.627	0.195	0.805
653760	0.400	0.600	0.386	0.614	0.400	0.600	0.249	0.751
653800	0.444	0.556	0.269	0.731	0.220	0.780	0.364	0.636
653870	0.364	0.636	0.231	0.769	0.290	0.710	0.211	0.789
654720	0.435	0.565	0.147	0.853	0.438	0.563	0.182	0.818
655010	0.276	0.724	0.225	0.775	0.125	0.875	0.049	0.951
655020	0.320	0.680	0.308	0.692	0.243	0.757	0.110	0.890
655030	0.297	0.703	0.391	0.609	0.300	0.700	0.064	0.936
655050	0.271	0.729	0.358	0.642	0.217	0.783	0.139	0.861
655070	0.373	0.627	0.400	0.600	0.176	0.824	0.109	0.891
655100	0.497	0.503	0.463	0.537	0.241	0.759	0.163	0.837
655160	0.434	0.566	0.372	0.628	0.244	0.756	0.115	0.885
655180	0.338	0.662	0.396	0.604	0.294	0.706	0.085	0.915
655220	0.441	0.559	0.485	0.515	0.250	0.750	0.217	0.783
655280	0.480	0.520	0.602	0.398	0.350	0.650	0.368	0.632
655360	0.410	0.590	0.508	0.492	0.329	0.671	0.247	0.753
655450	0.509	0.491	0.431	0.569	0.425	0.575	0.267	0.733
655480	0.519	0.481	0.598	0.402	0.437	0.563	0.265	0.735
655550	0.379	0.621	0.379	0.621	0.300	0.700	0.272	0.728
655570	0.545	0.455	0.351	0.649	0.453	0.547	0.428	0.572
655600	0.464	0.536	0.469	0.531	0.342	0.658	0.267	0.733
655620	0.471	0.529	0.291	0.709	0.412	0.588	0.311	0.689
655630	0.448	0.552	0.371	0.629	0.465	0.535	0.316	0.684
655780	0.385	0.615	0.254	0.746	0.567	0.433	0.299	0.701
655850	0.490	0.510	0.355	0.645	0.556	0.444	0.401	0.599
655920	0.633	0.367	0.462	0.538	0.585	0.415	0.389	0.611
655940	0.388	0.612	0.260	0.740	0.480	0.520	0.232	0.768
655990	0.333	0.667	0.173	0.827	0.468	0.532	0.270	0.730

**1st-Order Conditioned Markov Transition Probabilities
Neutral Pacific Sea Surface Temperature Event**

Gauge	Nov				Dec			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
653190	0.333	0.667	0.015	0.985	0.000	1.000	0.007	0.993
653300	0.333	0.667	0.014	0.986	0.000	1.000	0.009	0.991
653350	0.176	0.824	0.046	0.954	0.333	0.667	0.007	0.993
653380	0.227	0.773	0.061	0.939	0.000	1.000	0.016	0.984
653440	0.320	0.680	0.117	0.883	0.000	1.000	0.050	0.950
653520	0.200	0.800	0.017	0.983	0.000	1.000	0.005	0.995
653550	0.200	0.800	0.037	0.963	0.000	1.000	0.024	0.976
653570	0.300	0.700	0.036	0.964	0.000	1.000	0.015	0.985
653610	0.176	0.824	0.048	0.952	0.375	0.625	0.023	0.977
653760	0.000	1.000	0.076	0.924	0.000	1.000	0.021	0.979
653800	0.172	0.828	0.142	0.858	0.250	0.750	0.031	0.969
653870	0.154	0.846	0.087	0.913	0.000	1.000	0.027	0.973
654720	0.200	0.800	0.114	0.886	0.000	1.000	0.055	0.945
655010	0.000	1.000	0.008	0.992	0.000	1.000	0.014	0.986
655020	0.250	0.750	0.007	0.993	0.000	1.000	0.004	0.996
655030	0.286	0.714	0.010	0.990	0.000	1.000	0.006	0.994
655050	0.000	1.000	0.012	0.988	0.000	1.000	0.012	0.988
655070	0.000	1.000	0.012	0.988	0.400	0.600	0.011	0.989
655100	0.294	0.706	0.031	0.969	0.000	1.000	0.009	0.991
655160	0.556	0.444	0.012	0.988	0.000	1.000	0.007	0.993
655180	0.286	0.714	0.026	0.974	0.500	0.500	0.000	1.000
655220	0.333	0.667	0.024	0.976	0.000	1.000	0.008	0.992
655280	0.188	0.813	0.101	0.899	0.167	0.833	0.019	0.981
655360	0.087	0.913	0.068	0.932	0.000	1.000	0.014	0.986
655450	0.273	0.727	0.066	0.934	0.273	0.727	0.033	0.967
655480	0.214	0.786	0.109	0.891	0.214	0.786	0.050	0.950
655550	0.143	0.857	0.063	0.937	0.083	0.917	0.043	0.957
655570	0.226	0.774	0.316	0.684	0.282	0.718	0.109	0.891
655600	0.447	0.553	0.089	0.911	0.083	0.917	0.050	0.950
655620	0.324	0.676	0.096	0.904	0.000	1.000	0.054	0.946
655630	0.417	0.583	0.096	0.904	0.190	0.810	0.078	0.922
655780	0.489	0.511	0.375	0.625	0.304	0.696	0.171	0.829
655850	0.466	0.534	0.385	0.615	0.288	0.712	0.203	0.797
655920	0.520	0.480	0.400	0.600	0.341	0.659	0.287	0.713
655940	0.402	0.598	0.329	0.671	0.333	0.667	0.166	0.834
655990	0.414	0.586	0.329	0.671	0.326	0.674	0.148	0.852

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	Jan				Feb			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
653190	0.000	1.000	0.004	0.996	0.000	1.000	0.010	0.990
653300	0.000	1.000	0.008	0.992	0.250	0.750	0.022	0.978
653350	0.000	1.000	0.000	1.000	0.250	0.750	0.037	0.963
653380	0.000	1.000	0.014	0.986	0.118	0.882	0.076	0.924
653440	0.000	1.000	0.035	0.965	0.077	0.923	0.052	0.948
653520	0.000	0.000	0.000	1.000	0.000	1.000	0.022	0.978
653550	0.000	0.000	0.000	1.000	0.333	0.667	0.023	0.977
653570	0.000	1.000	0.006	0.994	0.000	0.000	0.000	1.000
653610	0.000	1.000	0.011	0.989	0.000	1.000	0.012	0.988
653760	0.000	1.000	0.016	0.984	0.143	0.857	0.050	0.950
653800	0.000	1.000	0.000	1.000	0.000	1.000	0.038	0.962
653870	0.000	1.000	0.008	0.992	0.100	0.900	0.046	0.954
654720	0.333	0.667	0.013	0.987	0.000	1.000	0.046	0.954
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.005	0.995
655020	0.000	1.000	0.005	0.995	0.000	0.000	0.000	1.000
655030	0.000	0.000	0.000	1.000	0.000	1.000	0.008	0.992
655050	0.000	1.000	0.008	0.992	0.000	0.000	0.000	1.000
655070	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
655100	0.000	1.000	0.004	0.996	0.000	1.000	0.004	0.996
655160	0.000	1.000	0.014	0.986	0.000	0.000	0.000	1.000
655180	0.000	0.000	0.000	1.000	0.000	1.000	0.008	0.992
655220	0.000	1.000	0.018	0.982	0.000	1.000	0.005	0.995
655280	0.250	0.750	0.018	0.982	0.000	1.000	0.013	0.987
655360	0.000	1.000	0.010	0.990	0.000	1.000	0.039	0.961
655450	0.000	1.000	0.021	0.979	0.200	0.800	0.079	0.921
655480	0.250	0.750	0.024	0.976	0.400	0.600	0.040	0.960
655550	0.000	0.000	0.011	0.989	0.125	0.875	0.041	0.959
655570	0.222	0.778	0.036	0.964	0.364	0.636	0.074	0.926
655600	0.000	1.000	0.025	0.975	0.222	0.778	0.080	0.920
655620	0.000	1.000	0.005	0.995	0.188	0.813	0.083	0.917
655630	0.000	1.000	0.007	0.993	0.154	0.846	0.060	0.940
655780	0.250	0.750	0.029	0.971	0.000	1.000	0.081	0.919
655850	0.000	1.000	0.015	0.985	0.211	0.789	0.090	0.910
655920	0.231	0.769	0.053	0.947	0.360	0.640	0.088	0.912
655940	0.000	1.000	0.016	0.984	0.000	1.000	0.050	0.950
655990	0.000	1.000	0.011	0.989	0.100	0.900	0.054	0.946

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	Mar				Apr			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.333	0.667	0.005	0.995	0.083	0.917	0.086	0.914
653190	0.111	0.889	0.045	0.955	0.182	0.818	0.162	0.838
653300	0.083	0.917	0.066	0.934	0.100	0.900	0.140	0.860
653350	0.250	0.750	0.067	0.933	0.103	0.897	0.221	0.779
653380	0.182	0.818	0.121	0.879	0.265	0.735	0.233	0.767
653440	0.222	0.778	0.105	0.895	0.160	0.840	0.168	0.832
653520	0.125	0.875	0.051	0.949	0.000	1.000	0.103	0.897
653550	0.071	0.929	0.090	0.910	0.154	0.846	0.176	0.824
653570	0.000	0.000	0.022	0.978	0.200	0.800	0.185	0.815
653610	0.111	0.889	0.059	0.941	0.111	0.889	0.167	0.833
653760	0.167	0.833	0.119	0.881	0.238	0.762	0.159	0.841
653800	0.250	0.750	0.165	0.835	0.000	1.000	0.261	0.739
653870	0.304	0.696	0.089	0.911	0.333	0.667	0.139	0.861
654720	0.133	0.867	0.094	0.906	0.000	1.000	0.053	0.947
655010	0.000	1.000	0.005	0.995	0.000	1.000	0.007	0.993
655020	0.250	0.750	0.015	0.985	0.000	1.000	0.013	0.987
655030	0.250	0.750	0.009	0.991	0.250	0.750	0.045	0.955
655050	0.250	0.750	0.033	0.967	0.000	1.000	0.060	0.940
655070	0.000	1.000	0.029	0.971	0.333	0.667	0.038	0.962
655100	0.273	0.727	0.038	0.962	0.250	0.750	0.112	0.888
655160	0.250	0.750	0.015	0.985	0.063	0.938	0.113	0.887
655180	0.333	0.667	0.033	0.967	0.125	0.875	0.053	0.947
655220	0.333	0.667	0.036	0.964	0.158	0.842	0.128	0.872
655280	0.125	0.875	0.061	0.939	0.048	0.952	0.162	0.838
655360	0.125	0.875	0.055	0.945	0.261	0.739	0.140	0.860
655450	0.167	0.833	0.034	0.966	0.130	0.870	0.179	0.821
655480	0.208	0.792	0.151	0.849	0.231	0.769	0.238	0.762
655550	0.176	0.824	0.111	0.889	0.214	0.786	0.198	0.802
655570	0.324	0.676	0.175	0.825	0.311	0.689	0.337	0.663
655600	0.125	0.875	0.202	0.798	0.278	0.722	0.300	0.700
655620	0.387	0.613	0.162	0.838	0.313	0.688	0.194	0.806
655630	0.304	0.696	0.116	0.884	0.308	0.692	0.247	0.753
655780	0.308	0.692	0.177	0.823	0.293	0.707	0.230	0.770
655850	0.125	0.875	0.192	0.808	0.208	0.792	0.253	0.747
655920	0.296	0.704	0.156	0.844	0.400	0.600	0.295	0.705
655940	0.133	0.867	0.086	0.914	0.424	0.576	0.189	0.811
655990	0.375	0.625	0.051	0.949	0.484	0.516	0.173	0.827

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	May				Jun			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.265	0.735	0.213	0.787	0.310	0.690	0.369	0.631
653190	0.296	0.704	0.343	0.657	0.465	0.535	0.412	0.588
653300	0.284	0.716	0.340	0.660	0.440	0.560	0.373	0.627
653350	0.259	0.741	0.265	0.735	0.333	0.667	0.440	0.560
653380	0.416	0.584	0.304	0.696	0.349	0.651	0.347	0.653
653440	0.360	0.640	0.407	0.593	0.576	0.424	0.429	0.571
653520	0.257	0.743	0.276	0.724	0.207	0.793	0.267	0.733
653550	0.375	0.625	0.392	0.608	0.519	0.481	0.400	0.600
653570	0.321	0.679	0.228	0.772	0.250	0.750	0.215	0.785
653610	0.373	0.627	0.339	0.661	0.404	0.596	0.400	0.600
653760	0.417	0.583	0.207	0.793	0.295	0.705	0.296	0.704
653800	0.333	0.667	0.290	0.710	0.415	0.585	0.308	0.692
653870	0.467	0.533	0.283	0.717	0.500	0.500	0.336	0.664
654720	0.219	0.781	0.217	0.783	0.531	0.469	0.205	0.795
655010	0.200	0.800	0.096	0.904	0.097	0.903	0.186	0.814
655020	0.172	0.828	0.132	0.868	0.260	0.740	0.261	0.739
655030	0.159	0.841	0.205	0.795	0.186	0.814	0.318	0.682
655050	0.250	0.750	0.151	0.849	0.152	0.848	0.345	0.655
655070	0.294	0.706	0.230	0.770	0.235	0.765	0.304	0.696
655100	0.237	0.763	0.267	0.733	0.375	0.625	0.346	0.654
655160	0.239	0.761	0.224	0.776	0.308	0.692	0.352	0.648
655180	0.250	0.750	0.202	0.798	0.206	0.794	0.338	0.663
655220	0.260	0.740	0.244	0.756	0.259	0.741	0.299	0.701
655280	0.241	0.759	0.270	0.730	0.250	0.750	0.394	0.606
655360	0.291	0.709	0.240	0.760	0.333	0.667	0.351	0.649
655450	0.450	0.550	0.329	0.671	0.389	0.611	0.372	0.628
655480	0.284	0.716	0.306	0.694	0.472	0.528	0.396	0.604
655550	0.290	0.710	0.296	0.704	0.225	0.775	0.247	0.753
655570	0.500	0.500	0.390	0.610	0.533	0.467	0.410	0.590
655600	0.400	0.600	0.336	0.664	0.409	0.591	0.305	0.695
655620	0.403	0.597	0.358	0.642	0.468	0.532	0.400	0.600
655630	0.342	0.658	0.371	0.629	0.450	0.550	0.300	0.700
655780	0.595	0.405	0.437	0.563	0.633	0.367	0.413	0.587
655850	0.510	0.490	0.445	0.555	0.708	0.292	0.484	0.516
655920	0.705	0.295	0.494	0.506	0.600	0.400	0.549	0.451
655940	0.606	0.394	0.377	0.623	0.500	0.500	0.500	0.500
655990	0.563	0.438	0.342	0.658	0.642	0.358	0.345	0.655

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	Jul				Aug			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.400	0.600	0.480	0.520	0.407	0.593	0.520	0.480
653190	0.358	0.642	0.531	0.469	0.585	0.415	0.630	0.370
653300	0.439	0.561	0.398	0.602	0.581	0.419	0.400	0.600
653350	0.321	0.679	0.291	0.709	0.500	0.500	0.314	0.686
653380	0.386	0.614	0.325	0.675	0.529	0.471	0.248	0.752
653440	0.429	0.571	0.222	0.778	0.387	0.613	0.227	0.773
653520	0.279	0.721	0.426	0.574	0.343	0.657	0.400	0.600
653550	0.530	0.470	0.606	0.394	0.616	0.384	0.600	0.400
653570	0.349	0.651	0.483	0.517	0.581	0.419	0.326	0.674
653610	0.571	0.429	0.472	0.528	0.559	0.441	0.492	0.508
653760	0.534	0.466	0.337	0.663	0.455	0.545	0.395	0.605
653800	0.276	0.724	0.263	0.737	0.444	0.556	0.154	0.846
653870	0.265	0.735	0.149	0.851	0.333	0.667	0.158	0.842
654720	0.514	0.486	0.132	0.868	0.286	0.714	0.138	0.862
655010	0.159	0.841	0.303	0.697	0.246	0.754	0.396	0.604
655020	0.333	0.667	0.304	0.696	0.403	0.597	0.477	0.523
655030	0.375	0.625	0.447	0.553	0.453	0.547	0.457	0.543
655050	0.310	0.690	0.390	0.610	0.365	0.635	0.514	0.486
655070	0.400	0.600	0.404	0.596	0.373	0.627	0.511	0.489
655100	0.392	0.608	0.415	0.585	0.515	0.485	0.566	0.434
655160	0.348	0.652	0.526	0.474	0.563	0.437	0.563	0.437
655180	0.333	0.667	0.317	0.683	0.571	0.429	0.563	0.438
655220	0.371	0.629	0.500	0.500	0.419	0.581	0.523	0.477
655280	0.480	0.520	0.457	0.543	0.475	0.525	0.619	0.381
655360	0.302	0.698	0.349	0.651	0.465	0.535	0.569	0.431
655450	0.351	0.649	0.208	0.792	0.357	0.643	0.271	0.729
655480	0.554	0.446	0.425	0.575	0.662	0.338	0.667	0.333
655550	0.389	0.611	0.180	0.820	0.323	0.677	0.287	0.712
655570	0.313	0.688	0.258	0.742	0.447	0.553	0.252	0.748
655600	0.392	0.608	0.267	0.733	0.463	0.537	0.356	0.644
655620	0.442	0.558	0.216	0.784	0.385	0.615	0.265	0.735
655630	0.314	0.686	0.175	0.825	0.371	0.629	0.218	0.782
655780	0.476	0.524	0.207	0.793	0.431	0.569	0.192	0.808
655850	0.460	0.540	0.324	0.676	0.492	0.508	0.295	0.705
655920	0.651	0.349	0.322	0.678	0.626	0.374	0.522	0.478
655940	0.520	0.480	0.227	0.773	0.396	0.604	0.306	0.694
655990	0.447	0.553	0.183	0.817	0.453	0.547	0.300	0.700

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	Sep				Oct			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.438	0.562	0.376	0.624	0.227	0.773	0.144	0.856
653190	0.567	0.433	0.575	0.425	0.506	0.494	0.341	0.659
653300	0.500	0.500	0.495	0.505	0.458	0.542	0.235	0.765
653350	0.387	0.613	0.404	0.596	0.426	0.574	0.377	0.623
653380	0.411	0.589	0.258	0.742	0.383	0.617	0.311	0.689
653440	0.489	0.511	0.257	0.743	0.391	0.609	0.369	0.631
653520	0.574	0.426	0.408	0.592	0.425	0.575	0.245	0.755
653550	0.587	0.413	0.627	0.373	0.538	0.463	0.471	0.529
653570	0.580	0.420	0.378	0.622	0.529	0.471	0.327	0.673
653610	0.542	0.458	0.478	0.522	0.515	0.485	0.309	0.691
653760	0.369	0.631	0.336	0.664	0.365	0.635	0.310	0.690
653800	0.387	0.613	0.167	0.833	0.278	0.722	0.342	0.658
653870	0.294	0.706	0.201	0.799	0.342	0.658	0.257	0.743
654720	0.241	0.759	0.135	0.865	0.342	0.658	0.182	0.818
655010	0.269	0.731	0.228	0.772	0.250	0.750	0.070	0.930
655020	0.386	0.614	0.297	0.703	0.176	0.824	0.123	0.877
655030	0.406	0.594	0.355	0.645	0.145	0.855	0.198	0.802
655050	0.348	0.652	0.320	0.680	0.320	0.680	0.148	0.852
655070	0.449	0.551	0.352	0.648	0.190	0.810	0.212	0.788
655100	0.378	0.622	0.476	0.524	0.232	0.768	0.236	0.764
655160	0.480	0.520	0.376	0.624	0.260	0.740	0.193	0.807
655180	0.364	0.636	0.463	0.537	0.360	0.640	0.197	0.803
655220	0.417	0.583	0.528	0.472	0.329	0.671	0.336	0.664
655280	0.528	0.472	0.520	0.480	0.451	0.549	0.411	0.589
655360	0.455	0.545	0.375	0.625	0.466	0.534	0.347	0.653
655450	0.435	0.565	0.398	0.602	0.459	0.541	0.288	0.712
655480	0.632	0.368	0.469	0.531	0.500	0.500	0.340	0.660
655550	0.449	0.551	0.268	0.732	0.378	0.622	0.223	0.777
655570	0.517	0.483	0.379	0.621	0.291	0.709	0.455	0.545
655600	0.587	0.413	0.262	0.738	0.302	0.698	0.318	0.682
655620	0.426	0.574	0.315	0.685	0.344	0.656	0.315	0.685
655630	0.333	0.667	0.301	0.699	0.320	0.680	0.312	0.688
655780	0.397	0.603	0.186	0.814	0.512	0.488	0.361	0.639
655850	0.507	0.493	0.374	0.626	0.522	0.478	0.463	0.537
655920	0.702	0.298	0.530	0.470	0.536	0.464	0.429	0.571
655940	0.511	0.489	0.224	0.776	0.489	0.511	0.281	0.719
655990	0.433	0.567	0.230	0.770	0.440	0.560	0.281	0.719

**1st-Order Conditioned Markov Transition Probabilities
Warm Pacific Sea Surface Temperature Event**

Gauge	Nov				Dec			
	P _{ww}	P _{wd}	P _{dw}	P _{dd}	P _{ww}	P _{wd}	P _{dw}	P _{dd}
653060	0.400	0.600	0.011	0.989	0.000	0.000	0.000	1.000
653190	0.357	0.643	0.032	0.968	0.000	0.000	0.000	1.000
653300	0.250	0.750	0.030	0.970	0.000	0.000	0.000	1.000
653350	0.200	0.800	0.020	0.980	0.000	1.000	0.004	0.996
653380	0.261	0.739	0.071	0.929	0.000	1.000	0.008	0.992
653440	0.200	0.800	0.121	0.879	0.125	0.875	0.022	0.978
653520	0.143	0.857	0.043	0.957	0.000	1.000	0.006	0.994
653550	0.471	0.529	0.042	0.958	0.000	0.000	0.000	1.000
653570	0.000	1.000	0.020	0.980	0.000	0.000	0.000	1.000
653610	0.333	0.667	0.047	0.953	0.000	0.000	0.000	1.000
653760	0.091	0.909	0.042	0.958	0.000	1.000	0.011	0.989
653800	0.333	0.667	0.075	0.925	0.000	0.000	0.000	1.000
653870	0.125	0.875	0.079	0.921	0.000	1.000	0.035	0.965
654720	0.000	1.000	0.071	0.929	0.000	1.000	0.033	0.967
655010	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
655020	0.000	0.000	0.000	1.000	0.000	1.000	0.004	0.996
655030	0.000	1.000	0.014	0.986	0.000	1.000	0.003	0.997
655050	0.250	0.750	0.015	0.985	0.000	1.000	0.007	0.993
655070	0.250	0.750	0.010	0.990	0.000	0.000	0.000	1.000
655100	0.231	0.769	0.037	0.963	0.000	0.000	0.000	1.000
655160	0.250	0.750	0.013	0.987	0.000	0.000	0.000	1.000
655180	0.400	0.600	0.031	0.969	0.000	0.000	0.000	1.000
655220	0.000	1.000	0.049	0.951	0.000	0.000	0.000	1.000
655280	0.450	0.550	0.055	0.945	0.000	1.000	0.011	0.989
655360	0.350	0.650	0.056	0.944	0.000	0.000	0.000	1.000
655450	0.222	0.778	0.056	0.944	0.200	0.800	0.018	0.982
655480	0.240	0.760	0.107	0.893	0.000	1.000	0.006	0.994
655550	0.286	0.714	0.062	0.938	0.000	1.000	0.012	0.988
655570	0.304	0.696	0.253	0.747	0.176	0.824	0.065	0.935
655600	0.259	0.741	0.110	0.890	0.250	0.750	0.030	0.970
655620	0.172	0.828	0.124	0.876	0.000	1.000	0.020	0.980
655630	0.115	0.885	0.177	0.823	0.167	0.833	0.013	0.987
655780	0.382	0.618	0.247	0.753	0.341	0.659	0.097	0.903
655850	0.333	0.667	0.372	0.628	0.161	0.839	0.114	0.886
655920	0.485	0.515	0.343	0.657	0.333	0.667	0.194	0.806
655940	0.457	0.543	0.268	0.732	0.192	0.808	0.157	0.843
655990	0.250	0.750	0.224	0.776	0.261	0.739	0.075	0.925

Appendix E: Gamma Distribution Parameters for Wet Day Amounts

Gauges	Gamma Parameters							
	Jan alpha	beta	Feb alpha	beta	Mar alpha	beta	Apr alpha	beta
653060	0.000	0.000	1.101	0.956	1.003	0.444	0.675	0.703
653190	0.399	1.427	0.848	0.298	0.728	0.497	0.665	0.786
653300	0.726	0.377	0.864	0.386	0.676	0.626	0.617	0.965
653350	0.628	0.568	0.595	1.429	0.708	0.784	0.753	0.716
653380	0.397	2.799	0.819	0.514	0.707	0.644	0.730	0.753
653440	0.449	1.200	0.608	1.076	0.589	0.968	0.622	1.398
653520	0.000	0.200	0.862	0.315	0.459	1.989	0.818	0.453
653550	0.000	1.100	0.458	1.627	0.603	0.667	0.709	0.554
653570	0.481	1.605	0.721	0.509	0.482	1.188	0.972	0.424
653610	0.879	0.538	0.980	0.347	0.869	0.448	0.675	0.621
653760	0.878	0.251	0.860	0.375	0.574	0.828	0.693	0.795
653800	0.892	1.191	0.389	1.923	0.801	0.634	0.719	0.886
653870	0.755	0.550	0.492	1.131	0.647	0.850	0.542	1.295
654720	0.578	0.588	0.523	0.825	0.705	0.682	0.554	1.655
655010	0.000	0.470	3.908	0.302	0.776	0.353	1.506	0.119
655020	0.000	0.080	0.000	2.400	0.639	0.773	0.908	0.277
655030	0.000	0.000	0.763	0.681	0.448	1.301	0.868	0.539
655050	0.000	0.020	1.027	1.305	0.726	0.412	0.599	0.541
655070	0.000	0.000	0.795	0.842	0.464	2.645	0.753	0.428
655100	0.903	0.753	0.725	0.536	0.728	0.357	0.702	0.533
655160	1.803	0.094	0.000	0.160	0.507	0.948	0.599	0.882
655180	0.000	0.000	1.138	0.161	0.573	0.769	0.620	0.651
655220	0.515	1.697	0.749	0.437	0.854	0.657	0.678	0.707
655280	1.228	0.236	0.611	0.888	0.477	0.988	0.770	0.604
655360	0.868	0.417	0.982	0.913	0.653	0.898	0.756	0.776
655450	0.469	1.845	0.632	0.893	0.633	0.840	0.676	0.980
655480	0.627	0.834	0.723	0.451	0.632	1.068	0.636	1.211
655550	0.586	1.563	0.678	0.889	0.538	1.520	0.717	1.169
655570	0.862	0.500	0.671	1.022	0.607	1.168	0.718	0.932
655600	1.114	0.202	0.722	0.773	0.628	0.777	0.737	0.911
655620	0.550	0.711	1.210	0.333	0.638	0.752	0.708	0.946
655630	0.584	1.233	0.768	0.415	0.827	0.419	0.874	0.574
655780	0.593	0.712	0.630	0.650	0.637	0.856	0.650	0.913
655850	0.726	0.556	0.589	0.934	0.566	0.888	0.628	0.900
655920	0.642	0.600	0.656	0.532	0.617	0.820	0.636	0.884
655940	0.781	0.427	0.623	0.472	0.625	0.750	0.637	0.954
655990	0.593	0.516	0.857	0.591	0.693	0.637	0.663	1.100

Gauges	Gamma Parameters							
	May alpha	beta	Jun alpha	beta	Jul alpha	beta	Aug alpha	beta
653060	0.771	0.695	0.777	0.763	0.748	0.887	0.696	0.851
653190	0.731	0.620	0.821	0.546	0.770	0.565	0.711	0.789
653300	0.833	0.584	0.665	0.772	0.637	0.949	0.651	0.893
653350	0.755	0.653	0.708	0.593	0.572	0.996	0.604	0.796
653380	0.776	0.641	0.699	0.780	0.541	1.013	0.614	0.674
653440	0.660	1.031	0.544	1.481	0.496	0.907	0.452	0.853
653520	0.778	0.654	0.582	1.145	0.589	1.069	0.816	0.617
653550	0.790	0.508	0.667	0.683	0.574	1.051	0.701	0.968
653570	0.804	0.673	0.729	0.913	0.792	0.573	0.654	0.743
653610	0.711	0.615	0.812	0.506	0.679	0.734	0.783	0.593
653760	0.642	0.996	0.679	0.908	0.714	0.671	0.633	0.810
653800	0.663	1.014	0.569	1.104	0.650	0.535	0.445	0.816
653870	0.563	1.093	0.597	0.922	0.503	0.891	0.589	0.373
654720	0.874	0.732	0.544	0.955	0.436	1.161	0.659	0.197
655010	0.645	0.425	0.714	0.526	0.708	0.691	0.737	0.769
655020	0.551	0.984	0.709	0.685	0.855	0.595	0.790	0.624
655030	0.683	0.689	0.797	0.550	0.743	0.760	0.805	0.650
655050	0.757	0.573	0.685	0.840	0.922	0.630	0.852	0.643
655070	0.594	1.013	0.718	0.878	0.778	0.800	0.646	1.035
655100	0.716	0.619	0.767	0.611	0.743	0.679	0.738	0.846
655160	0.789	0.510	0.898	0.481	0.785	0.703	0.852	0.646
655180	0.824	0.486	0.839	0.665	0.615	1.050	0.772	0.801
655220	0.677	0.780	0.823	0.702	0.749	0.752	0.788	0.736
655280	0.835	0.598	0.925	0.517	0.612	1.249	0.711	0.876
655360	0.742	0.752	0.838	0.702	0.813	0.733	0.710	0.921
655450	0.723	0.822	0.812	0.706	0.634	0.705	0.540	1.048
655480	0.751	0.703	0.559	1.350	0.550	0.911	0.595	1.115
655550	0.849	0.626	0.746	0.684	0.492	1.589	0.551	1.109
655570	0.873	0.562	0.757	0.606	0.767	0.388	0.629	0.477
655600	0.851	0.561	0.548	1.122	0.649	0.451	0.597	0.645
655620	0.722	0.721	0.630	0.781	0.631	0.530	0.459	0.834
655630	0.736	0.727	0.711	0.670	0.566	0.833	0.612	0.586
655780	0.567	1.174	0.576	1.684	0.524	0.841	0.466	0.642
655850	0.612	1.026	0.629	1.349	0.462	1.096	0.578	0.387
655920	0.614	1.230	0.528	1.707	0.508	1.093	0.588	0.626
655940	0.608	1.209	0.613	1.122	0.506	0.998	0.692	0.295
655990	0.764	0.912	0.652	1.110	0.496	0.859	0.579	0.385

Gauges	Gamma Parameters							
	Sep alpha	beta	Oct alpha	beta	Nov alpha	beta	Dec alpha	beta
653060	0.780	0.677	0.826	0.394	0.690	0.169	0.000	2.130
653190	0.902	0.560	0.854	0.425	1.016	0.360	4.764	0.045
653300	0.782	0.673	0.818	0.540	0.586	0.944	2.119	0.073
653350	0.691	0.645	0.801	0.527	0.911	0.422	1.741	0.126
653380	0.651	0.675	0.721	0.686	0.508	0.905	0.873	1.005
653440	0.585	0.724	0.666	0.792	0.773	0.480	0.375	2.098
653520	0.817	0.549	0.831	0.507	0.387	3.090	7.355	0.185
653550	0.845	0.590	0.723	0.523	0.925	0.581	0.537	0.437
653570	0.837	0.647	1.138	0.403	1.520	0.301	0.859	0.457
653610	0.758	0.605	0.834	0.511	0.541	1.357	1.133	0.124
653760	0.767	0.702	0.841	0.514	0.733	0.358	0.603	1.094
653800	0.569	0.745	0.746	0.515	0.751	0.400	0.610	1.557
653870	0.593	0.581	0.681	0.636	0.836	0.310	0.613	0.574
654720	0.451	0.811	0.612	0.590	0.765	0.494	0.957	0.467
655010	0.805	0.442	0.447	0.997	0.330	3.716	1.210	1.997
655020	0.747	0.628	0.857	0.302	0.588	1.208	8.654	0.007
655030	0.650	0.913	0.708	0.444	0.481	1.352	0.739	0.947
655050	0.832	0.521	0.805	0.407	0.791	0.303	2.631	0.688
655070	0.802	0.565	0.833	0.341	0.591	0.533	0.467	2.617
655100	0.758	0.640	0.826	0.449	0.719	0.550	0.976	0.190
655160	0.778	0.547	0.895	0.413	0.781	0.393	0.466	2.662
655180	0.954	0.459	0.997	0.343	1.168	0.217	32.153	0.018
655220	0.988	0.477	0.851	0.458	0.508	0.744	0.331	2.087
655280	0.849	0.657	0.784	0.634	0.785	0.613	0.683	0.568
655360	0.906	0.568	0.700	0.587	0.621	0.506	1.134	0.845
655450	0.747	0.578	0.803	0.562	0.839	0.337	0.724	0.471
655480	0.829	0.623	0.764	0.626	0.836	0.428	0.558	1.189
655550	0.745	0.711	0.837	0.570	0.720	0.536	0.608	0.948
655570	0.654	0.657	0.815	0.471	0.874	0.408	0.788	0.528
655600	0.682	0.648	0.757	0.479	0.942	0.300	0.860	0.743
655620	0.611	0.684	0.710	0.577	0.744	0.498	0.848	0.663
655630	0.667	0.568	0.750	0.492	0.962	0.360	0.805	0.411
655780	0.380	1.486	0.535	0.848	0.786	0.519	0.559	1.005
655850	0.521	0.661	0.576	0.840	0.656	0.574	0.523	1.005
655920	0.601	0.754	0.492	1.016	0.634	0.582	0.539	1.008
655940	0.640	0.389	0.562	0.552	0.637	0.666	0.598	0.863
655990	0.615	0.373	0.649	0.535	0.681	0.564	0.707	0.654

Appendix F: Mixed Exponential Distribution Parameters for Wet Day Amounts

Mixed Exponential Parameters						
Gauges	Jan			Feb		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	1.000	0.000	0.000	0.918	1.143	0.040
653190	0.352	1.563	0.030	0.304	0.069	0.333
653300	0.471	0.507	0.066	0.818	0.398	0.042
653350	0.373	0.026	0.553	0.650	0.212	2.038
653380	0.484	0.048	2.107	0.332	0.790	0.238
653440	0.469	1.103	0.041	0.460	0.115	1.114
653520	1.000	0.200	29.407	0.767	0.346	0.029
653550	1.000	1.100	39.622	0.425	0.044	1.263
653570	0.561	1.338	0.049	0.606	0.579	0.040
653610	0.222	0.071	0.588	0.866	0.390	0.014
653760	0.164	0.777	0.111	0.541	0.153	0.522
653800	0.764	1.342	0.157	0.742	0.124	2.542
653870	0.843	0.487	0.029	0.795	0.160	2.095
654720	0.535	0.048	0.675	0.738	0.117	1.319
655010	0.000	0.471	0.470	1.000	1.180	23.921
655020	1.000	0.080	128	0.999	2.400	2.400
655030	1.000	0.000	0.000	0.587	0.140	1.059
655050	1.000	0.020	108	0.253	0.242	1.712
655070	1.000	0.000	0.000	0.379	0.080	1.029
655100	0.320	0.174	0.918	0.318	0.847	0.175
655160	0.000	499	0.170	0.000	0.162	0.160
655180	1.000	0.000	0.000	0.295	0.061	0.235
655220	0.606	0.148	1.989	0.543	0.548	0.065
655280	1.000	0.290	18.883	0.298	0.029	0.760
655360	0.381	0.719	0.143	0.911	0.974	0.105
655450	0.408	0.032	1.440	0.835	0.274	2.031
655480	0.636	0.801	0.037	0.817	0.394	0.023
655550	0.409	1.866	0.258	0.844	0.602	0.033
655570	0.535	0.201	0.696	0.936	0.423	4.551
655600	0.214	0.147	0.247	0.224	0.056	0.703
655620	0.624	0.612	0.024	0.000	0.403	0.403
655630	0.246	0.028	0.947	0.609	0.470	0.082
655780	0.503	0.081	0.769	0.950	0.264	3.158
655850	0.291	0.060	0.545	0.380	0.066	0.847
655920	0.577	0.106	0.766	0.336	0.047	0.502
655940	0.343	0.100	0.456	0.904	0.157	1.576
655990	0.600	0.482	0.042	0.953	0.403	2.574

Gauges	Mixed Exponential Parameters						
	Mar				Apr		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2	
653060	0.592	0.555	0.285	0.509	0.143	0.819	
653190	0.439	0.090	0.575	0.559	0.850	0.107	
653300	0.541	0.115	0.787	0.292	0.062	0.815	
653350	0.779	0.697	0.053	0.724	0.706	0.102	
653380	0.234	0.051	0.579	0.285	0.097	0.730	
653440	0.318	0.053	0.811	0.932	0.606	4.505	
653520	0.623	1.436	0.050	0.275	0.077	0.482	
653550	0.493	0.742	0.071	0.704	0.535	0.054	
653570	0.882	0.206	3.311	0.481	0.231	0.581	
653610	0.216	0.060	0.480	0.386	0.866	0.138	
653760	0.577	0.773	0.069	0.432	0.132	0.870	
653800	0.727	0.664	0.090	0.662	0.906	0.111	
653870	0.403	1.115	0.168	0.580	0.167	1.441	
654720	0.374	0.085	0.717	0.595	0.185	1.992	
655010	0.403	0.509	0.114	1.000	0.179	1057	
655020	0.520	0.847	0.112	0.479	0.106	0.385	
655030	0.177	2.586	0.154	0.120	0.046	0.525	
655050	0.145	1.240	0.140	0.543	0.069	0.627	
655070	0.439	2.589	0.159	0.455	0.089	0.517	
655100	0.444	0.065	0.416	0.455	0.089	0.613	
655160	0.865	0.141	2.659	0.783	0.219	1.642	
655180	0.258	1.258	0.156	0.451	0.754	0.117	
655220	0.104	0.061	0.619	0.612	0.724	0.091	
655280	0.948	0.220	5.052	0.705	0.617	0.102	
655360	0.471	1.074	0.152	0.447	0.187	0.911	
655450	0.435	0.085	0.876	0.885	0.434	2.427	
655480	0.851	0.369	2.425	0.432	0.167	1.228	
655550	0.828	0.316	3.230	0.051	6.053	0.556	
655570	0.968	0.435	8.924	0.989	0.579	9.058	
655600	0.347	0.070	0.710	0.010	9.485	0.577	
655620	0.362	0.081	0.706	0.240	1.455	0.423	
655630	0.706	0.455	0.085	0.319	0.802	0.362	
655780	0.543	0.145	1.021	0.278	0.063	0.797	
655850	0.469	0.091	0.865	0.442	0.122	0.916	
655920	0.598	0.161	1.021	0.557	0.924	0.107	
655940	0.568	0.770	0.074	0.388	0.102	0.928	
655990	0.540	0.720	0.115	0.541	0.262	1.279	

Mixed Exponential Parameters						
Gauges	May			Jun		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.751	0.686	0.083	0.024	2.747	0.540
653190	0.252	0.065	0.585	0.283	0.117	0.579
653300	0.987	0.448	3.396	0.658	0.732	0.093
653350	0.811	0.595	0.059	0.705	0.569	0.063
653380	0.802	0.605	0.066	0.762	0.698	0.054
653440	0.303	0.094	0.936	0.639	1.217	0.077
653520	0.846	0.594	0.043	0.884	0.357	3.020
653550	0.159	0.030	0.472	0.318	0.061	0.640
653570	0.169	1.469	0.352	0.455	0.191	1.063
653610	0.814	0.275	1.146	0.839	0.480	0.050
653760	0.945	0.447	3.973	0.591	0.229	1.175
653800	0.687	0.941	0.081	0.283	0.050	0.857
653870	0.429	0.093	1.008	0.420	0.078	0.891
654720	0.887	0.710	0.093	0.603	0.833	0.045
655010	0.559	0.448	0.053	0.554	0.595	0.104
655020	0.846	0.219	2.311	0.329	1.015	0.226
655030	0.955	0.344	3.185	0.234	0.966	0.278
655050	0.422	0.124	0.659	0.956	0.415	4.093
655070	0.197	1.957	0.269	0.891	0.432	2.257
655100	0.549	0.693	0.138	0.260	0.085	0.603
655160	0.639	0.564	0.115	0.862	0.492	0.061
655180	0.744	0.502	0.103	0.914	0.608	0.023
655220	0.273	0.069	0.701	0.014	4.191	0.528
655280	0.505	0.761	0.233	0.120	0.112	0.528
655360	0.308	0.123	0.751	0.074	0.033	0.633
655450	0.850	0.693	0.033	0.876	0.646	0.055
655480	0.199	0.058	0.644	0.067	4.552	0.482
655550	0.433	0.241	0.753	0.256	0.083	0.658
655570	0.682	0.625	0.202	0.473	0.173	0.715
655600	0.651	0.644	0.168	0.731	0.206	1.725
655620	0.270	0.075	0.685	0.522	0.827	0.126
655630	0.670	0.738	0.122	0.017	5.386	0.390
655780	0.318	0.058	0.950	0.635	1.461	0.119
655850	0.598	0.982	0.100	0.412	0.166	1.328
655920	0.384	0.126	1.148	0.597	1.444	0.097
655940	0.339	0.097	1.061	0.498	0.155	1.216
655990	0.257	0.132	0.892	0.658	1.038	0.118

Mixed Exponential Parameters						
Gauges	Jul			Aug		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.842	0.774	0.069	0.768	0.754	0.055
653190	0.795	0.534	0.052	0.190	0.052	0.681
653300	0.431	0.137	0.960	0.667	0.823	0.096
653350	0.642	0.855	0.058	0.426	0.087	0.773
653380	0.423	0.058	0.907	0.473	0.766	0.098
653440	0.343	1.136	0.092	0.638	0.057	0.962
653520	0.519	1.074	0.150	0.787	0.613	0.098
653550	0.436	0.090	1.001	0.972	0.551	5.085
653570	0.603	0.658	0.143	0.674	0.689	0.065
653610	0.614	0.745	0.107	0.244	0.082	0.588
653760	0.554	0.752	0.141	0.428	0.094	0.825
653800	0.406	0.061	0.543	0.837	0.101	1.703
653870	0.456	0.911	0.060	0.785	0.074	0.753
654720	0.453	1.058	0.048	0.699	0.038	0.342
655010	0.258	0.064	0.637	0.193	0.048	0.690
655020	0.086	0.033	0.553	0.190	0.064	0.593
655030	0.215	0.071	0.700	0.130	0.041	0.595
655050	0.079	0.078	0.624	0.116	0.046	0.613
655070	0.240	0.119	0.782	0.900	0.437	2.763
655100	0.786	0.624	0.066	0.816	0.753	0.054
655160	0.161	0.060	0.647	0.888	0.613	0.056
655180	0.677	0.918	0.072	0.839	0.727	0.055
655220	0.241	0.091	0.714	0.216	0.101	0.711
655280	0.852	0.414	2.782	0.978	0.512	5.506
655360	0.124	0.041	0.674	0.006	13.343	0.574
655450	0.364	0.069	0.664	0.386	0.047	0.892
655480	0.589	0.808	0.060	0.507	1.171	0.142
655550	0.605	1.253	0.063	0.399	0.079	0.964
655570	0.473	0.104	0.471	0.647	0.092	0.681
655600	0.488	0.529	0.067	0.525	0.078	0.725
655620	0.614	0.511	0.053	0.623	0.061	0.916
655630	0.412	0.979	0.116	0.540	0.613	0.061
655780	0.688	0.102	1.189	0.130	1.698	0.091
655850	0.649	0.080	1.294	0.134	1.041	0.097
655920	0.201	2.050	0.179	0.606	0.091	0.795
655940	0.730	0.119	1.544	0.206	0.643	0.091
655990	0.702	0.091	1.214	0.848	0.092	0.955

Mixed Exponential Parameters						
Gauges	Sep			Oct		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.856	0.608	0.052	0.271	0.082	0.416
653190	0.066	0.037	0.538	0.300	0.129	0.463
653300	0.794	0.642	0.081	0.234	0.084	0.551
653350	0.586	0.679	0.116	0.237	0.081	0.527
653380	0.281	0.047	0.593	0.203	0.043	0.610
653440	0.598	0.672	0.053	0.278	0.063	0.706
653520	0.226	0.087	0.554	0.860	0.483	0.043
653550	0.982	0.448	3.349	0.716	0.507	0.054
653570	0.983	0.489	3.546	0.000	171	0.459
653610	0.788	0.567	0.058	0.252	0.119	0.530
653760	0.820	0.642	0.067	0.808	0.514	0.089
653800	0.509	0.079	0.782	0.705	0.514	0.072
653870	0.547	0.077	0.668	0.643	0.628	0.081
654720	0.060	3.949	0.139	0.647	0.125	0.794
655010	0.289	0.086	0.465	0.740	0.089	1.462
655020	0.255	0.067	0.607	0.417	0.105	0.370
655030	0.040	4.819	0.420	0.927	0.227	1.416
655050	0.768	0.535	0.098	0.416	0.092	0.495
655070	0.165	0.048	0.533	0.765	0.355	0.056
655100	0.767	0.611	0.073	0.829	0.437	0.048
655160	0.194	0.061	0.513	0.436	0.174	0.521
655180	0.954	0.400	1.237	0.858	0.385	0.081
655220	0.935	0.498	0.072	0.197	0.082	0.465
655280	0.296	0.191	0.712	0.016	8.868	0.357
655360	0.919	0.555	0.064	0.081	1.667	0.300
655450	0.201	0.046	0.528	0.364	0.781	0.262
655480	0.193	0.094	0.618	0.792	0.308	1.126
655550	0.796	0.646	0.075	0.759	0.297	1.045
655570	0.531	0.719	0.101	0.392	0.131	0.547
655600	0.778	0.223	1.205	0.314	0.076	0.493
655620	0.992	0.335	10.442	0.680	0.572	0.064
655630	0.496	0.093	0.660	0.362	0.087	0.530
655780	0.256	1.988	0.076	0.555	0.078	0.922
655850	0.349	0.855	0.070	0.451	0.083	0.813
655920	0.807	0.199	1.517	0.621	0.094	1.164
655940	0.859	0.120	1.038	0.306	0.812	0.089
655990	0.372	0.519	0.058	0.537	0.094	0.640

Mixed Exponential Parameters						
Gauges	Nov			Dec		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.234	0.378	0.037	1.000	2.130	6.459
653190	0.514	0.250	0.487	1.000	0.215	16.842
653300	0.249	0.030	0.726	0.000	30.935	0.154
653350	0.920	0.416	0.027	0.000	0.219	0.219
653380	0.439	0.047	0.784	0.788	1.065	0.179
653440	0.263	0.068	0.479	0.620	0.054	1.979
653520	0.199	5.148	0.212	0.000	1.360	1.360
653550	0.930	0.576	0.039	0.555	0.411	0.015
653570	0.000	0.457	0.457	0.685	0.546	0.058
653610	0.696	0.208	1.942	0.111	0.043	0.152
653760	0.388	0.531	0.093	0.866	0.302	2.973
653800	0.631	0.441	0.060	0.293	0.065	1.316
653870	0.795	0.316	0.039	0.521	0.065	0.663
654720	0.224	0.053	0.472	0.769	0.318	0.877
655010	0.506	2.413	0.010	0.093	0.120	2.653
655020	0.310	2.002	0.130	0.000	0.060	0.060
655030	0.408	0.042	1.070	0.493	0.106	1.278
655050	0.414	0.051	0.373	1.000	1.810	590
655070	0.308	0.017	0.448	0.533	2.254	0.046
655100	0.448	0.100	0.635	0.220	0.027	0.226
655160	0.613	0.462	0.060	0.524	2.330	0.040
655180	0.000	86.429	0.253	1.000	0.570	160
655220	0.671	0.071	1.004	0.653	0.025	1.944
655280	0.042	3.967	0.330	0.675	0.153	0.874
655360	0.465	0.050	0.545	0.000	4.032	0.958
655450	0.312	0.554	0.160	0.802	0.420	0.022
655480	0.027	3.663	0.266	0.319	0.045	0.953
655550	0.284	0.904	0.180	0.665	0.187	1.349
655570	0.555	0.197	0.556	0.692	0.562	0.088
655600	0.153	0.069	0.321	0.094	0.039	0.702
655620	0.819	0.444	0.036	0.902	0.618	0.045
655630	0.058	1.376	0.283	0.371	0.080	0.480
655780	0.799	0.495	0.063	0.547	0.957	0.084
655850	0.398	0.076	0.575	0.989	0.350	16.914
655920	0.536	0.622	0.076	0.493	0.084	0.990
655940	0.629	0.146	0.895	0.413	0.075	0.827
655990	0.494	0.663	0.112	0.341	0.069	0.666

Appendix G: Conditioned Mixed Exponential Distribution Parameters for Wet Day Amounts

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	Jan			Feb		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.813	9.709	4.391	1.000	0.750	8.822
653190	0.569	5.967	17.466	0.362	1.468	2.151
653300	0.000	5.607	0.140	0.000	0.115	0.120
653350	0.000	77.895	0.160	0.000	64.795	2.007
653380	0.679	4.423	0.030	0.675	0.763	0.158
653440	0.652	0.049	0.787	0.427	0.044	1.418
653520	0.393	8.587	5.115	0.054	8.451	6.413
653550	0.652	0.684	5.273	0.496	0.010	3.873
653570	1.000	0.430	161	0.910	1.959	2.243
653610	0.613	0.814	0.062	1.000	0.410	25.065
653760	0.749	0.069	0.959	0.481	0.123	0.888
653800	1.000	1.390	60.811	0.788	0.105	1.963
653870	0.864	0.753	0.010	0.606	0.047	0.395
654720	1.000	0.030	1.449	0.000	10.609	1.610
655010	0.000	0.470	0.470	1.000	1.535	868
655020	0.387	4.820	10.092	0.896	9.015	0.603
655030	0.645	6.917	10.251	0.154	1.112	0.762
655050	0.416	3.619	17.417	0.438	2.419	14.936
655070	0.674	5.715	17.575	0.696	4.515	15.094
655100	0.932	7.812	17.733	0.000	0.120	0.120
655160	0.216	9.119	11.907	0.626	6.064	19.663
655180	0.474	1.215	12.065	0.910	7.370	13.837
655220	1.000	0.390	15.225	0.560	0.077	0.887
655280	0.000	12.038	0.080	1.000	0.310	3.384
655360	0.000	0.003	0.157	0.630	0.080	2.096
655450	0.223	0.020	1.552	1.000	0.310	33.152
655480	0.244	0.043	0.647	0.657	0.326	0.024
655550	0.512	1.435	0.054	0.519	0.106	0.727
655570	0.000	15.373	0.754	0.128	2.805	0.243
655600	1.000	0.178	23.255	0.000	69.003	0.407
655620	0.329	0.020	0.779	0.682	0.158	1.164
655630	0.723	0.677	0.020	0.708	0.910	0.020
655780	0.763	0.701	0.039	0.086	5.942	0.380
655850	0.258	0.052	0.546	0.396	0.018	0.355
655920	0.629	0.092	1.310	0.117	0.060	0.496
655940	0.763	0.395	0.115	0.620	0.204	1.700
655990	0.696	0.584	0.011	0.272	3.414	0.157

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	Mar			Apr		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.201	0.203	1.232	0.818	1.220	0.010
653190	0.431	0.103	0.616	0.567	0.101	0.687
653300	1.000	0.598	20.599	0.932	0.425	0.014
653350	0.842	1.114	0.108	0.602	0.218	1.164
653380	0.465	0.903	0.222	0.334	0.177	0.492
653440	0.366	0.045	0.791	0.726	1.129	0.108
653520	0.000	42.707	0.120	0.339	0.027	0.670
653550	0.630	0.562	0.010	1.000	0.457	1.863
653570	0.653	0.955	0.163	1.000	0.160	122
653610	0.491	0.350	0.082	0.687	0.455	0.055
653760	0.649	0.353	0.035	0.138	0.066	0.851
653800	0.737	0.633	0.063	0.194	0.111	1.032
653870	0.611	1.117	0.074	0.802	0.897	0.028
654720	0.596	0.636	0.040	0.561	0.088	3.133
655010	0.000	57.249	0.080	0.301	5.925	0.571
655020	0.547	1.774	0.043	0.000	0.547	0.160
655030	0.341	0.031	0.166	1.000	0.918	0.917
655050	1.000	0.063	7236	1.000	0.072	292
655070	0.410	0.777	0.042	1.000	0.343	53.624
655100	0.078	0.018	0.316	0.000	0.474	0.474
655160	0.400	0.044	0.293	0.240	2.994	0.265
655180	0.051	0.022	0.116	0.864	0.076	0.016
655220	0.740	0.687	0.013	0.487	0.160	1.195
655280	0.615	0.252	4.977	0.000	2.655	0.506
655360	0.193	1.291	0.182	0.093	0.240	0.832
655450	0.744	0.793	0.032	0.065	0.060	0.522
655480	0.289	0.103	0.486	0.325	0.026	1.001
655550	0.164	1.958	0.222	0.000	16.289	0.510
655570	0.176	0.035	0.496	0.011	0.015	0.201
655600	0.880	0.697	0.038	0.110	0.010	0.415
655620	0.148	0.041	0.661	0.432	0.637	0.047
655630	0.317	0.123	0.469	0.679	0.301	2.160
655780	0.472	1.287	0.132	0.635	0.060	1.627
655850	0.199	0.028	0.652	0.182	0.052	0.466
655920	0.355	0.794	0.105	0.315	0.100	2.036
655940	0.655	0.072	1.071	0.457	1.307	0.027
655990	0.595	0.088	0.749	0.000	0.046	3.910

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	May			Jun		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.256	0.051	0.493	0.892	0.678	0.063
653190	0.361	0.064	0.670	0.535	0.718	0.172
653300	0.717	0.563	0.111	0.413	0.177	0.943
653350	0.894	0.472	0.028	0.366	0.113	0.631
653380	0.365	1.224	0.219	0.452	0.068	0.707
653440	0.766	1.170	0.048	0.692	0.952	0.044
653520	0.243	0.039	0.523	0.155	0.018	0.619
653550	0.256	0.016	0.354	0.737	0.756	0.026
653570	0.802	0.290	2.913	0.194	0.152	0.658
653610	0.226	0.022	0.612	0.942	0.695	0.107
653760	0.521	0.643	0.174	0.852	0.515	0.036
653800	0.794	1.151	0.056	0.372	0.017	0.502
653870	0.254	0.160	1.170	0.311	0.039	0.551
654720	1.000	1.193	28.152	0.360	0.022	0.996
655010	0.069	0.020	0.259	0.342	0.942	0.043
655020	0.704	0.075	0.441	0.462	0.670	0.042
655030	0.024	0.060	0.438	0.926	0.421	0.082
655050	0.820	0.381	0.015	0.075	0.018	0.484
655070	0.336	0.065	0.796	0.214	0.059	0.692
655100	0.843	0.263	1.021	0.798	0.488	0.069
655160	0.626	0.139	0.422	0.722	0.481	0.055
655180	0.137	0.013	0.318	0.170	0.018	0.573
655220	0.829	0.419	2.103	0.287	0.072	0.732
655280	0.706	1.059	0.074	1.000	0.449	233
655360	0.278	0.099	0.728	0.750	0.956	0.019
655450	0.127	0.021	0.770	0.333	0.033	0.865
655480	0.586	0.893	0.060	0.931	0.762	14.609
655550	1.000	0.639	253	0.449	0.154	0.638
655570	0.783	0.475	0.095	0.820	0.363	0.015
655600	1.000	0.341	30.026	0.449	0.032	0.466
655620	0.884	0.685	0.056	0.708	0.700	0.049
655630	0.325	0.079	0.707	0.971	0.400	0.038
655780	0.227	0.037	0.737	0.408	0.071	1.289
655850	0.807	0.241	2.519	0.432	2.326	0.309
655920	0.268	0.105	0.752	0.937	0.734	0.038
655940	0.793	0.409	0.029	0.256	0.072	0.847
655990	0.000	10.609	0.573	0.895	1.137	0.076

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	Jul			Aug		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.678	0.984	0.173	0.225	0.031	0.674
653190	0.698	0.537	0.131	0.807	0.948	0.041
653300	0.273	0.097	0.999	0.620	1.225	0.094
653350	0.537	1.162	0.047	0.889	0.969	0.023
653380	0.475	0.053	1.125	0.199	0.018	1.007
653440	0.173	3.341	0.345	0.791	0.085	1.424
653520	0.770	0.684	0.056	0.287	0.252	0.915
653550	0.667	0.079	1.014	0.334	0.061	0.926
653570	0.046	0.059	0.329	0.214	0.070	0.628
653610	0.498	0.082	1.602	0.819	0.555	0.037
653760	0.505	0.224	1.046	0.544	0.119	0.696
653800	0.259	0.942	0.121	0.050	0.036	0.206
653870	0.518	0.071	1.382	0.582	0.563	0.030
654720	0.676	0.746	0.038	1.000	0.018	609
655010	0.130	0.046	0.627	0.229	0.038	0.687
655020	0.256	0.051	0.785	0.870	0.743	0.021
655030	0.532	1.204	0.271	0.108	0.048	0.780
655050	0.253	0.063	0.701	0.060	0.063	0.579
655070	0.743	0.537	0.076	1.000	0.576	0.576
655100	0.834	0.532	0.053	0.818	0.678	0.164
655160	0.928	0.581	0.079	0.097	0.087	0.756
655180	0.472	0.039	0.704	0.524	0.637	0.090
655220	0.891	0.652	0.033	0.708	0.414	1.925
655280	0.673	0.276	1.389	0.108	0.034	0.772
655360	0.726	0.907	0.034	0.000	0.258	0.615
655450	0.361	0.022	0.450	0.646	0.037	0.954
655480	0.033	5.828	0.365	0.655	0.901	0.055
655550	0.581	1.168	0.026	0.532	0.452	0.026
655570	0.649	0.091	0.240	0.570	0.035	0.504
655600	0.515	0.144	0.324	0.077	2.565	0.099
655620	0.541	0.068	0.372	0.719	0.106	0.349
655630	0.682	0.169	0.946	0.248	1.094	0.062
655780	0.557	0.707	0.053	0.065	9.762	0.075
655850	0.766	0.089	1.894	0.984	0.051	0.017
655920	0.446	0.075	1.078	0.549	0.040	0.373
655940	0.195	0.726	0.215	0.910	0.079	1.121
655990	0.170	0.566	0.142	0.730	0.061	0.811

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	Sep			Oct		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.909	0.433	2.399	0.327	0.055	0.387
653190	0.915	0.560	0.036	0.839	0.418	0.023
653300	0.186	0.057	0.612	1.000	0.515	34.765
653350	1.000	0.391	0.390	0.828	0.445	0.104
653380	0.178	0.032	0.608	0.814	0.606	0.040
653440	0.373	0.067	0.595	0.679	0.626	0.070
653520	0.814	0.549	0.155	0.906	0.585	0.074
653550	0.716	0.594	0.153	0.944	0.434	0.051
653570	0.516	0.697	0.135	0.000	20.211	0.367
653610	0.143	0.050	0.535	0.788	0.460	0.027
653760	0.283	0.144	0.788	0.550	0.712	0.151
653800	0.705	0.639	0.058	0.228	0.097	0.386
653870	0.465	0.835	0.105	0.273	0.040	0.321
654720	0.294	4.666	0.136	0.635	1.707	0.098
655010	0.765	0.440	0.067	0.538	0.069	2.719
655020	0.880	0.636	0.098	0.761	0.263	0.033
655030	0.097	0.051	0.672	0.929	0.221	2.426
655050	0.862	0.501	0.054	0.683	0.234	0.142
655070	0.135	0.072	0.457	0.877	0.358	0.028
655100	0.302	0.079	0.706	0.615	0.180	0.553
655160	0.204	0.052	0.502	0.660	0.389	0.117
655180	0.481	0.148	0.778	1.000	0.309	179
655220	0.089	0.044	0.454	0.855	0.256	0.568
655280	0.372	0.273	0.740	0.951	0.267	1.798
655360	0.924	0.496	0.057	0.180	0.056	0.414
655450	0.691	0.706	0.057	0.674	0.135	0.569
655480	0.663	0.650	0.098	0.900	0.451	0.017
655550	0.363	0.047	0.618	0.177	1.431	0.270
655570	0.901	0.182	1.400	0.295	0.229	0.321
655600	0.789	0.209	1.894	0.047	0.032	0.397
655620	0.954	0.264	11.591	0.441	0.796	0.092
655630	0.412	0.510	0.110	0.594	0.432	0.150
655780	0.368	1.251	0.066	0.500	0.051	0.786
655850	0.469	0.038	0.260	0.328	0.029	0.430
655920	0.523	0.962	0.099	0.514	0.083	0.873
655940	0.158	0.500	0.089	0.780	0.108	0.996
655990	0.880	0.071	0.348	0.298	0.049	0.452

**Mixed Exponential Parameters
Cold Pacific Sea Surface Temperature Event**

Gauges	Nov			Dec		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.000	0.020	0.020	0.080	6.019	14.051
653190	1.000	0.073	1657	0.980	8.769	11.296
653300	0.417	0.195	0.015	1.000	0.104	205
653350	0.844	0.497	0.047	0.940	0.243	0.020
653380	0.851	0.481	0.065	0.212	0.102	1.050
653440	0.595	0.805	0.128	0.352	0.730	0.046
653520	1.000	0.160	252	0.085	3.107	19.811
653550	0.000	0.748	0.756	1.000	0.710	0.710
653570	0.000	54.818	0.730	0.000	0.080	0.080
653610	1.000	0.196	76.421	0.000	22.364	0.210
653760	0.387	0.048	0.322	1.000	0.162	109
653800	0.421	0.029	0.609	0.036	0.119	0.874
653870	0.716	0.357	0.046	1.000	0.353	122
654720	0.000	79.823	0.220	1.000	1.090	1.090
655010	0.143	9.061	8.083	0.883	2.412	17.502
655020	1.000	0.080	1533	0.141	4.509	17.660
655030	0.520	0.195	0.044	1.000	0.100	0.100
655050	0.382	0.029	0.407	0.199	2.105	12.308
655070	0.521	1.325	0.020	1.000	2.360	0.012
655100	0.359	1.445	0.238	0.000	0.215	0.215
655160	1.000	0.433	0.040	0.748	4.686	13.257
655180	0.000	0.330	0.332	0.000	28.552	0.670
655220	0.184	3.941	0.094	0.274	0.969	0.030
655280	1.000	0.276	6.145	1.000	0.215	319
655360	0.366	0.063	0.555	0.540	1.429	0.040
655450	0.530	0.550	0.116	0.761	0.374	0.024
655480	0.929	0.293	5.452	0.701	0.482	0.023
655550	0.322	1.190	0.104	0.300	2.166	0.237
655570	0.122	1.357	0.362	0.354	0.055	0.491
655600	0.292	0.078	0.497	0.651	0.968	0.179
655620	0.074	0.026	0.278	0.493	0.094	0.861
655630	0.666	0.468	0.085	0.393	0.650	0.193
655780	0.315	0.992	0.163	0.533	0.781	0.067
655850	0.266	0.027	0.492	0.720	0.545	0.026
655920	0.689	0.113	0.604	0.559	0.133	0.773
655940	0.597	0.119	0.662	0.087	2.867	0.272
655990	0.596	0.105	0.846	0.812	0.551	0.052

Mixed Exponential Parameters

Neutral Pacific Sea Surface Temperature Event

Gauges	Jan			Feb		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.339	8.562	8.690	0.872	1.269	0.040
653190	0.463	0.040	1.539	0.623	0.402	0.075
653300	0.391	1.083	0.059	1.000	0.657	0.657
653350	0.558	0.664	0.025	0.470	2.036	0.119
653380	0.471	0.076	1.188	0.751	0.254	1.190
653440	0.528	0.041	1.143	0.466	0.111	1.186
653520	0.000	0.200	0.200	0.000	0.497	0.495
653550	0.000	1.101	1.100	0.453	1.173	0.046
653570	1.000	0.050	12340	0.394	0.040	0.579
653610	1.000	0.750	18.878	0.328	0.015	0.377
653760	1.000	0.220	983	1.000	0.265	154
653800	1.000	0.080	130	0.726	0.097	3.049
653870	0.938	0.276	0.032	0.655	0.126	2.203
654720	0.358	1.003	0.244	0.746	0.104	1.468
655010	0.706	9.997	2.265	0.733	0.474	13.949
655020	0.964	2.093	2.423	0.000	13.038	2.400
655030	0.735	8.795	9.589	1.000	0.960	36.010
655050	0.993	0.892	9.747	0.253	0.242	1.712
655070	0.277	2.198	3.921	0.621	1.029	0.080
655100	1.000	0.980	0.980	0.162	0.011	0.571
655160	0.207	3.746	8.491	1.000	0.160	163
655180	0.465	5.843	8.649	1.000	0.255	37.835
655220	0.964	1.906	0.458	0.490	0.271	0.059
655280	1.000	0.426	44.373	0.650	0.997	0.024
655360	0.604	0.657	18.653	1.000	0.941	156
655450	0.471	0.040	1.940	0.547	0.229	1.700
655480	0.000	70.683	0.040	0.795	0.392	0.124
655550	0.693	1.780	0.250	0.238	0.023	0.892
655570	0.779	0.265	0.975	0.967	0.476	6.102
655600	0.745	0.499	0.020	0.308	0.041	0.907
655620	0.434	0.020	0.444	0.000	0.573	0.421
655630	0.737	0.201	2.830	0.639	0.475	0.106
655780	0.676	0.101	0.763	0.286	0.078	0.354
655850	0.245	0.062	0.476	0.438	0.107	1.092
655920	0.306	0.074	0.463	0.564	0.573	0.061
655940	0.758	0.318	0.016	0.651	0.168	0.038
655990	0.569	0.078	0.510	0.950	0.490	0.039

**Mixed Exponential Parameters
Neutral Pacific Sea Surface Temperature Event**

Gauges	Mar	Apr				
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.000	4.041	0.364	0.289	1.082	0.204
653190	0.483	0.105	0.653	0.666	0.735	0.101
653300	0.582	0.104	0.671	0.348	0.071	0.985
653350	0.745	0.637	0.048	0.249	0.072	0.674
653380	0.274	0.060	0.493	0.347	0.126	0.796
653440	0.621	0.958	0.076	0.030	5.981	0.643
653520	0.469	2.448	0.129	0.856	0.460	0.090
653550	0.276	0.090	0.392	0.752	0.561	0.040
653570	0.924	0.168	5.331	0.447	0.233	0.607
653610	0.769	0.522	0.061	0.581	0.130	0.868
653760	0.450	0.078	1.108	0.562	0.759	0.134
653800	0.000	45.656	0.235	0.374	0.130	0.988
653870	0.680	0.211	1.203	0.222	2.314	0.263
654720	0.481	0.121	0.777	0.604	0.208	2.010
655010	0.495	0.505	0.141	0.000	184	0.189
655020	0.000	0.375	0.346	0.432	0.090	0.401
655030	0.678	0.118	2.155	0.878	0.485	0.044
655050	0.132	1.740	0.137	0.561	0.449	0.033
655070	0.456	0.204	2.797	0.537	0.097	0.575
655100	0.607	0.454	0.061	0.507	0.082	0.611
655160	0.803	0.125	2.728	0.427	0.830	0.142
655180	0.134	2.298	0.211	0.341	0.075	0.569
655220	0.226	0.109	0.741	0.644	0.690	0.075
655280	0.572	0.064	0.339	0.259	0.078	0.513
655360	0.491	0.170	1.062	0.500	0.905	0.193
655450	0.465	0.960	0.095	0.813	0.391	2.233
655480	0.858	0.386	2.589	0.457	0.180	1.112
655550	0.884	0.373	4.543	0.051	7.208	0.589
655570	0.044	9.461	0.399	0.986	0.619	9.301
655600	0.422	0.107	0.852	0.889	0.713	0.089
655620	0.575	0.791	0.071	0.905	0.580	2.273
655630	0.281	0.062	0.439	0.107	0.968	0.437
655780	0.540	0.955	0.135	0.274	0.067	0.805
655850	0.568	0.788	0.062	0.562	0.937	0.141
655920	0.168	2.299	0.217	0.330	0.067	0.711
655940	0.505	0.064	0.491	0.412	0.129	1.102
655990	0.307	0.961	0.162	0.226	0.058	0.858

Mixed Exponential Parameters
Neutral Pacific Sea Surface Temperature Event

Gauges	May			Jun		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.754	0.782	0.090	0.937	0.554	0.038
653190	0.767	0.620	0.042	0.258	0.091	0.630
653300	0.107	0.042	0.549	0.715	0.752	0.068
653350	0.373	0.162	0.771	0.688	0.591	0.061
653380	0.743	0.626	0.067	0.800	0.764	0.049
653440	0.425	0.190	0.965	0.590	1.041	0.089
653520	0.754	0.697	0.074	0.974	0.378	7.199
653550	0.217	0.056	0.502	0.368	0.062	0.650
653570	0.489	0.663	0.265	0.307	0.088	0.837
653610	0.165	0.955	0.231	0.877	0.414	0.036
653760	0.851	0.339	2.849	0.765	0.295	1.541
653800	0.706	1.020	0.097	0.592	0.836	0.196
653870	0.957	0.386	4.750	0.422	0.081	0.827
654720	0.873	0.839	0.062	0.397	0.033	0.685
655010	0.555	0.051	0.514	0.255	0.787	0.201
655020	0.226	2.580	0.205	0.326	0.180	0.506
655030	0.974	0.357	3.713	0.833	0.289	1.123
655050	0.713	0.639	0.104	0.761	0.509	0.113
655070	0.374	0.124	0.607	0.969	0.503	0.075
655100	0.186	0.050	0.534	0.238	0.104	0.620
655160	0.196	0.051	0.536	0.119	0.066	0.496
655180	0.292	0.107	0.447	0.000	0.253	0.629
655220	0.694	0.748	0.072	0.434	0.323	0.641
655280	0.200	0.125	0.643	0.024	0.032	0.499
655360	0.026	4.297	0.532	0.934	0.629	0.099
655450	0.169	0.045	0.648	0.251	0.899	0.386
655480	0.102	0.035	0.595	0.308	0.068	0.841
655550	0.963	0.473	0.103	0.802	0.642	0.057
655570	0.385	0.224	0.632	0.257	0.105	0.617
655600	0.331	0.110	0.641	0.543	0.144	0.788
655620	0.349	0.086	0.715	0.627	0.652	0.097
655630	0.150	1.347	0.330	0.221	0.084	0.485
655780	0.317	0.054	0.991	0.624	1.333	0.126
655850	0.318	0.095	0.801	0.446	0.180	1.314
655920	0.312	0.070	0.915	0.565	1.720	0.117
655940	0.218	0.060	0.731	0.514	1.276	0.171
655990	0.775	0.714	0.086	0.601	1.097	0.140

Mixed Exponential Parameters
Neutral Pacific Sea Surface Temperature Event

Gauges	Jul			Aug		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.831	0.813	0.046	0.262	0.064	0.834
653190	0.768	0.562	0.041	0.989	0.468	5.853
653300	0.470	1.087	0.160	0.806	0.697	0.048
653350	0.662	0.818	0.055	0.590	0.636	0.080
653380	0.570	0.918	0.065	0.605	0.119	0.790
653440	0.697	0.087	0.798	0.397	0.951	0.057
653520	0.651	1.054	0.037	0.156	0.072	0.606
653550	0.353	0.053	0.772	0.163	0.049	0.815
653570	0.632	0.213	0.835	0.252	0.042	0.658
653610	0.665	0.634	0.093	0.769	0.578	0.083
653760	0.437	0.144	0.779	0.527	0.097	0.928
653800	0.421	0.079	0.535	0.750	0.073	1.503
653870	0.552	0.061	0.711	0.184	0.614	0.074
654720	0.405	0.804	0.039	0.306	0.319	0.034
655010	0.247	0.070	0.606	0.835	0.640	0.066
655020	0.068	0.025	0.540	0.217	0.095	0.569
655030	0.189	0.068	0.689	0.853	0.553	0.037
655050	0.891	0.590	0.097	0.138	0.047	0.591
655070	0.637	0.856	0.180	0.325	0.096	0.748
655100	0.763	0.636	0.078	0.172	0.054	0.758
655160	0.165	0.076	0.588	0.868	0.607	0.043
655180	0.402	0.092	1.046	0.850	0.652	0.049
655220	0.726	0.768	0.091	0.189	0.090	0.632
655280	0.391	1.199	0.313	0.789	0.671	0.099
655360	0.906	0.670	0.045	0.173	0.057	0.619
655450	0.370	0.088	0.807	0.630	0.837	0.045
655480	0.594	0.937	0.060	0.558	0.186	1.325
655550	0.905	0.465	5.480	0.941	0.504	4.629
655570	0.415	0.084	0.475	0.661	0.113	0.760
655600	0.481	0.506	0.069	0.452	0.077	0.742
655620	0.679	0.165	0.808	0.481	0.506	0.042
655630	0.568	0.100	1.161	0.463	0.061	0.634
655780	0.294	1.324	0.104	0.105	1.724	0.113
655850	0.398	1.090	0.064	0.713	0.063	0.408
655920	0.804	0.160	2.070	0.408	0.797	0.086
655940	0.793	0.118	2.005	0.833	0.108	0.619
655990	0.694	0.081	1.053	0.844	0.102	0.499

**Mixed Exponential Parameters
Neutral Pacific Sea Surface Temperature Event**

Gauges	Sep			Oct		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.067	0.045	0.633	0.727	0.248	0.675
653190	0.107	0.034	0.553	0.767	0.455	0.085
653300	0.773	0.655	0.089	0.646	0.487	0.066
653350	0.397	0.094	0.663	0.155	0.049	0.492
653380	0.262	0.039	0.574	0.852	0.538	0.032
653440	0.560	0.587	0.043	0.292	0.043	0.687
653520	0.173	0.047	0.514	0.175	0.035	0.350
653550	0.101	0.820	0.414	0.753	0.472	0.050
653570	0.000	0.708	0.512	0.020	0.146	0.519
653610	0.148	0.042	0.507	0.899	0.486	0.109
653760	0.735	0.668	0.090	0.809	0.563	0.073
653800	0.509	0.928	0.061	0.313	0.066	0.554
653870	0.516	0.058	0.453	0.718	0.192	1.032
654720	0.353	0.037	0.229	0.771	0.259	0.022
655010	0.796	0.417	0.061	0.916	0.069	1.206
655020	0.739	0.539	0.070	0.732	0.185	0.676
655030	0.055	3.577	0.359	0.188	0.101	0.235
655050	0.584	0.597	0.116	0.534	0.562	0.063
655070	0.819	0.527	0.045	0.843	0.291	0.060
655100	0.145	0.054	0.572	0.801	0.448	0.027
655160	0.025	2.343	0.455	0.358	0.536	0.232
655180	0.000	0.414	0.414	0.181	0.096	0.498
655220	0.936	0.521	0.082	0.408	0.092	0.410
655280	0.793	0.659	0.120	0.984	0.324	5.616
655360	0.117	0.090	0.630	0.952	0.308	3.120
655450	0.892	0.529	0.043	0.808	0.592	0.049
655480	0.336	0.840	0.365	0.744	0.346	0.912
655550	0.113	2.098	0.403	0.926	0.407	1.072
655570	0.462	0.111	0.747	0.235	0.096	0.530
655600	0.503	0.154	0.532	0.263	0.068	0.363
655620	0.786	0.502	0.062	0.177	0.057	0.502
655630	0.567	0.663	0.101	0.440	0.088	0.722
655780	0.827	0.113	3.471	0.587	0.092	1.019
655850	0.315	0.976	0.080	0.381	0.097	0.694
655920	0.167	1.748	0.200	0.400	1.448	0.090
655940	0.846	0.132	1.083	0.308	0.667	0.119
655990	0.502	0.668	0.053	0.629	0.130	0.811

Mixed Exponential Parameters
Neutral Pacific Sea Surface Temperature Event

Gauges	Nov			Dec		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.844	2.722	11.412	0.000	72.452	2.130
653190	0.000	0.295	0.264	0.000	0.696	0.215
653300	0.824	0.324	0.039	0.000	0.237	0.237
653350	0.932	0.409	0.028	1.000	0.210	99.502
653380	0.930	0.236	2.646	0.595	1.434	0.223
653440	0.227	0.053	0.454	0.687	0.064	1.256
653520	0.000	70.560	0.168	1.000	1.850	47.379
653550	0.846	0.492	0.010	0.443	0.155	0.015
653570	0.000	2.352	0.412	0.800	0.611	0.040
653610	0.222	3.729	0.211	0.216	0.045	0.133
653760	0.747	0.096	0.904	0.709	0.322	3.178
653800	0.328	0.518	0.112	0.602	1.702	0.034
653870	0.797	0.339	0.029	0.736	0.038	1.904
654720	0.357	0.037	0.540	1.000	0.317	17.885
655010	0.506	2.413	0.010	0.000	2.990	2.990
655020	0.430	1.936	0.155	1.000	0.040	19128
655030	0.520	1.351	0.084	0.000	13.499	1.590
655050	1.000	0.140	289	1.000	2.400	2.400
655070	0.242	0.010	0.188	0.427	2.273	0.046
655100	0.904	0.570	0.085	0.432	0.308	0.024
655160	0.777	0.120	1.058	0.524	2.330	0.040
655180	1.000	0.155	115	0.000	39.017	0.470
655220	0.822	0.415	0.071	0.495	0.010	2.963
655280	0.899	0.292	3.484	0.300	1.228	0.131
655360	0.484	0.040	0.536	0.000	1.044	1.043
655450	0.159	0.743	0.205	0.205	0.014	0.404
655480	0.107	0.566	0.193	0.718	1.232	0.044
655550	0.161	0.149	0.444	0.684	0.436	0.075
655570	0.505	0.204	0.509	0.812	0.587	0.071
655600	0.000	2.195	0.278	1.000	0.712	0.712
655620	0.666	0.573	0.122	0.949	0.652	0.018
655630	0.045	2.333	0.298	0.387	0.061	0.507
655780	0.939	0.430	0.043	0.981	0.472	14.366
655850	0.066	1.195	0.277	0.595	0.492	0.082
655920	0.531	0.720	0.090	0.285	0.047	0.982
655940	0.330	1.215	0.173	0.561	0.908	0.106
655990	0.490	0.102	0.512	0.343	0.048	0.738

**Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event**

Gauges	Jan			Feb		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.021	2.190	4.620	0.054	8.451	6.413
653190	0.000	0.019	0.020	0.040	0.042	0.181
653300	0.838	0.225	0.041	0.628	0.337	0.038
653350	0.599	3.569	12.893	1.000	0.268	5.952
653380	0.644	0.015	0.666	0.933	0.338	0.020
653440	0.444	0.029	1.166	0.485	0.183	0.758
653520	0.026	9.279	10.380	0.500	0.029	0.217
653550	0.284	1.375	10.538	1.000	0.375	2.356
653570	0.000	2.560	2.560	0.630	3.635	17.886
653610	1.000	0.235	10.525	1.000	0.475	88.716
653760	0.000	0.063	0.100	0.767	0.326	0.039
653800	0.789	4.714	10.072	0.000	38.870	0.413
653870	0.575	0.797	0.040	0.986	0.202	0.017
654720	0.000	70.613	0.033	0.913	0.164	0.010
655010	0.009	6.746	15.432	1.000	0.470	920
655020	1.000	0.080	10848	0.509	4.264	6.875
655030	0.529	0.528	9.057	0.000	0.931	0.080
655050	0.000	22.029	0.020	0.081	6.465	8.531
655070	0.048	4.310	2.682	0.852	3.167	15.698
655100	1.000	0.080	38.336	0.000	76.796	0.200
655160	0.000	0.162	0.170	0.320	8.530	1.291
655180	0.882	8.197	17.804	0.000	53.643	0.040
655220	1.000	0.053	176	1.000	0.670	111
655280	1.000	0.173	34.840	0.397	0.040	0.596
655360	0.253	0.121	0.856	0.000	112	0.865
655450	0.616	0.035	0.690	0.000	3.937	0.229
655480	0.656	0.963	0.030	0.267	0.010	0.575
655550	1.000	0.665	65.564	1.000	0.574	32.659
655570	1.000	0.156	0.156	0.069	5.941	0.418
655600	0.000	0.179	0.183	0.152	0.140	0.503
655620	1.000	0.080	1419	0.000	0.353	0.353
655630	1.000	1.220	43.111	0.576	0.238	0.075
655780	0.535	0.052	1.004	0.755	0.110	1.196
655850	0.412	1.136	0.066	0.362	0.040	0.572
655920	0.583	0.257	0.084	0.458	0.042	0.470
655940	0.939	0.745	0.168	0.385	0.113	0.250
655990	0.428	0.020	0.414	1.000	0.358	8.197

**Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event**

Gauges	Mar			Apr		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	1.000	0.395	1.888	0.377	0.070	0.487
653190	0.375	0.040	0.356	0.634	0.091	1.619
653300	0.597	0.095	1.281	0.783	0.545	0.039
653350	0.101	0.017	0.450	0.589	0.281	0.974
653380	0.821	0.791	0.039	0.249	0.044	0.772
653440	0.802	0.582	0.027	0.790	0.276	4.887
653520	0.707	0.642	0.026	0.608	0.067	0.221
653550	0.356	1.458	0.056	0.738	0.102	0.561
653570	0.000	0.439	0.450	1.000	0.325	0.325
653610	0.000	0.478	0.478	0.907	0.194	2.424
653760	0.827	0.341	0.072	0.470	1.487	0.146
653800	0.787	0.860	0.088	0.690	0.571	0.067
653870	0.446	0.088	0.749	0.512	0.071	1.178
654720	0.330	0.065	0.742	0.148	0.010	0.425
655010	1.000	0.040	57.886	1.000	0.040	1218
655020	0.567	0.439	0.020	1.000	0.140	0.140
655030	1.000	0.210	219	0.109	0.022	0.490
655050	0.430	0.533	0.219	0.253	1.872	0.292
655070	1.000	0.128	0.128	0.249	0.031	0.441
655100	0.815	0.065	0.335	0.376	0.141	0.684
655160	1.000	0.130	0.129	0.914	0.229	3.647
655180	0.773	0.834	0.010	0.383	1.310	0.175
655220	1.000	0.489	19.124	0.537	0.132	0.601
655280	0.263	0.025	0.390	0.468	0.151	1.233
655360	0.509	0.105	1.232	0.343	0.141	0.920
655450	0.243	0.195	0.849	0.000	27.503	0.449
655480	0.377	0.081	1.307	0.422	0.175	1.806
655550	0.617	1.790	0.048	0.107	1.795	0.431
655570	0.076	0.051	0.626	0.665	0.642	0.300
655600	0.386	0.029	0.427	0.035	10.066	0.450
655620	0.396	0.760	0.181	0.852	0.315	1.619
655630	0.430	0.144	0.539	0.703	0.626	0.088
655780	0.315	0.925	0.153	0.125	0.049	0.611
655850	0.920	0.322	3.409	0.560	0.096	1.085
655920	0.055	0.015	0.567	0.376	0.975	0.149
655940	0.045	0.417	0.875	0.211	0.039	0.591
655990	0.130	0.045	0.698	0.604	0.253	1.081

Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event

Gauges	May			Jun		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.217	0.079	0.556	0.221	0.026	0.899
653190	0.417	0.145	0.597	0.132	0.069	0.424
653300	0.020	5.392	0.397	0.365	0.085	0.554
653350	0.281	0.063	0.581	0.735	0.516	0.058
653380	0.915	0.530	0.039	0.815	0.527	0.046
653440	0.294	0.034	0.926	0.248	0.043	1.517
653520	0.111	0.013	0.571	0.711	0.215	2.722
653550	0.935	0.470	0.019	0.314	0.075	0.634
653570	0.790	0.369	1.733	0.759	0.338	2.361
653610	0.954	0.431	3.480	0.379	0.091	0.529
653760	0.890	0.617	0.038	0.372	0.121	1.193
653800	0.659	0.728	0.063	0.622	0.142	1.743
653870	0.531	0.067	1.077	0.441	0.086	1.134
654720	0.555	0.609	0.274	0.425	0.075	1.065
655010	0.335	0.654	0.124	0.239	0.037	0.552
655020	0.848	0.231	0.949	0.690	0.246	1.618
655030	0.886	0.267	2.597	0.592	0.191	0.905
655050	0.855	0.226	1.565	0.873	0.377	3.696
655070	0.186	3.186	0.263	0.620	0.188	2.085
655100	0.657	0.146	1.095	0.291	0.060	0.631
655160	0.534	0.629	0.134	0.901	0.488	0.057
655180	0.126	0.069	0.593	0.139	0.042	0.586
655220	0.260	0.053	0.544	0.962	0.558	4.489
655280	0.198	1.002	0.278	0.288	0.117	0.616
655360	0.314	0.072	0.639	0.043	0.029	0.580
655450	0.149	0.029	0.734	0.137	0.055	0.753
655480	0.402	0.118	0.770	0.267	0.068	0.877
655550	0.613	0.211	1.167	0.146	1.596	0.315
655570	0.772	0.400	1.010	0.755	0.224	1.111
655600	0.391	0.228	0.715	0.201	3.749	0.294
655620	0.184	0.042	0.643	0.856	0.276	2.301
655630	0.718	0.785	0.112	0.944	0.364	4.653
655780	0.403	0.090	1.038	0.312	0.134	1.729
655850	0.525	1.199	0.110	0.339	0.126	1.223
655920	0.401	0.158	1.443	0.448	0.085	1.314
655940	0.573	1.553	0.145	0.620	0.162	1.407
655990	0.255	0.178	1.184	0.674	0.951	0.100

Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event

Gauges	Jul			Aug		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.100	0.164	0.641	0.169	0.041	0.620
653190	0.757	0.529	0.130	0.794	0.695	0.053
653300	0.679	0.752	0.123	0.477	0.113	0.907
653350	0.319	0.067	0.778	0.553	0.115	1.002
653380	0.614	0.787	0.051	0.503	0.083	0.722
653440	0.578	0.071	1.296	0.669	0.052	0.938
653520	0.992	0.526	0.205	0.229	0.080	0.466
653550	0.540	0.156	1.343	0.984	0.477	12.438
653570	0.707	0.678	0.096	0.340	1.032	0.122
653610	0.767	0.576	0.117	0.681	0.642	0.094
653760	0.422	0.109	0.519	0.137	0.095	0.693
653800	0.637	0.556	0.026	0.922	0.108	2.129
653870	0.458	0.036	1.067	0.267	0.993	0.074
654720	0.723	0.106	2.089	0.858	0.081	0.682
655010	0.355	0.059	0.725	0.738	0.838	0.040
655020	0.037	0.023	0.476	0.247	0.049	0.657
655030	0.270	0.067	0.621	0.087	0.053	0.619
655050	0.963	0.636	1.754	0.898	0.668	0.041
655070	0.127	0.050	0.804	0.127	4.915	0.451
655100	0.072	2.255	0.405	0.244	0.050	0.793
655160	0.814	0.795	0.029	0.589	0.321	0.830
655180	0.697	0.547	1.451	0.940	0.882	0.017
655220	0.641	0.737	0.133	0.840	0.654	0.068
655280	0.944	0.488	9.784	0.962	0.467	8.190
655360	0.078	0.042	0.557	0.023	12.334	0.647
655450	0.252	0.038	0.395	0.396	0.061	1.007
655480	0.366	0.040	0.460	0.548	0.142	1.217
655550	0.683	0.631	0.041	0.490	0.848	0.056
655570	0.667	0.201	0.633	0.694	0.073	0.612
655600	0.519	0.633	0.036	0.546	0.071	0.559
655620	0.574	0.556	0.042	0.911	0.193	6.459
655630	0.713	0.412	0.040	0.273	0.056	0.467
655780	0.294	1.122	0.105	0.731	0.050	0.650
655850	0.683	0.105	1.598	0.204	1.403	0.114
655920	0.823	0.195	2.253	0.640	0.124	0.927
655940	0.613	0.086	1.377	0.733	0.069	0.692
655990	0.401	1.494	0.071	0.792	0.066	1.289

**Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event**

Gauges	Sep			Oct		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.588	0.576	0.088	0.708	0.435	0.074
653190	0.947	0.523	0.331	0.664	0.468	0.153
653300	0.713	0.700	0.135	0.442	0.103	0.799
653350	0.540	0.102	0.971	0.334	0.088	0.618
653380	0.447	0.735	0.097	0.320	0.065	0.742
653440	0.655	0.792	0.061	0.616	0.878	0.161
653520	0.604	0.666	0.103	0.123	0.038	0.501
653550	0.035	3.472	0.434	0.372	0.057	0.559
653570	0.200	1.895	0.377	1.000	0.445	226
653610	0.391	0.081	0.739	0.457	0.729	0.220
653760	0.878	0.575	0.034	0.879	0.327	0.681
653800	0.801	0.102	0.690	0.299	0.054	0.616
653870	0.444	0.857	0.090	0.766	0.707	0.038
654720	0.639	0.055	0.289	0.511	0.539	0.121
655010	0.555	0.144	0.666	0.310	0.030	0.393
655020	0.663	0.686	0.054	0.283	0.057	0.291
655030	0.978	0.441	10.185	0.665	0.489	0.034
655050	0.060	0.038	0.513	0.267	0.094	0.571
655070	0.162	0.038	0.599	0.420	0.075	0.449
655100	0.905	0.302	1.847	0.861	0.466	0.061
655160	0.630	0.464	0.082	0.694	0.575	0.145
655180	0.756	0.529	0.191	0.792	0.369	0.059
655220	0.000	0.486	0.486	0.094	0.037	0.595
655280	0.370	0.216	0.774	0.985	0.424	17.054
655360	0.708	0.381	0.677	0.458	0.745	0.139
655450	0.324	0.053	0.455	0.549	0.414	0.586
655480	0.162	0.036	0.643	0.701	0.198	1.246
655550	0.111	0.022	0.585	0.388	1.067	0.160
655570	0.385	0.070	0.666	0.252	0.897	0.176
655600	0.555	0.136	1.078	0.488	0.085	0.798
655620	0.442	0.053	0.441	0.603	0.616	0.059
655630	0.422	0.725	0.077	0.868	0.311	0.063
655780	0.234	1.553	0.062	0.607	0.095	0.997
655850	0.428	0.845	0.058	0.494	1.142	0.078
655920	0.824	0.195	1.402	0.751	0.117	1.097
655940	0.912	0.134	1.568	0.319	0.999	0.050
655990	0.559	0.046	0.307	0.625	0.093	0.668

**Mixed Exponential Parameters
Warm Pacific Sea Surface Temperature Event**

Gauges	Nov			Dec		
	alpha	beta 1	beta 2	alpha	beta 1	beta 2
653060	0.291	0.367	0.041	0.568	2.682	4.712
653190	1.000	0.531	8.456	0.391	7.803	19.910
653300	0.486	1.371	0.322	0.701	8.319	8.100
653350	0.923	0.367	0.010	0.000	210.610	0.200
653380	0.616	0.040	1.336	1.000	0.905	227
653440	0.189	0.065	0.333	0.350	0.035	3.676
653520	0.681	0.240	5.030	0.000	0.870	0.870
653550	0.840	0.590	0.063	0.367	6.093	18.345
653570	1.000	0.435	114	0.625	8.189	18.503
653610	0.642	1.014	0.147	0.396	4.891	5.669
653760	0.907	0.257	0.123	1.000	0.665	556
653800	0.220	0.065	0.422	0.916	8.673	19.294
653870	0.850	0.263	0.052	0.361	0.343	0.074
654720	0.933	0.497	0.126	0.292	0.020	0.337
655010	0.429	9.510	1.085	1.000	0.120	0.120
655020	0.687	1.607	1.243	1.000	0.080	64.595
655030	0.765	1.389	0.010	1.000	0.120	9810
655050	0.397	0.636	0.040	1.000	0.630	26.172
655070	0.201	0.020	0.261	0.463	9.165	19.386
655100	0.485	0.084	0.174	0.721	1.261	19.544
655160	1.000	0.138	213	0.467	8.753	12.694
655180	0.828	0.344	0.043	0.725	0.850	12.852
655220	0.191	0.432	0.046	0.009	2.157	7.026
655280	1.000	0.386	4.125	0.547	0.614	0.020
655360	0.579	0.068	0.605	0.222	5.011	5.770
655450	1.000	0.164	25.675	0.733	0.608	0.071
655480	0.503	0.182	0.475	1.000	0.120	0.120
655550	0.906	0.183	1.721	0.519	1.485	0.020
655570	0.193	0.046	0.309	0.370	0.638	0.140
655600	0.723	0.299	0.058	0.781	0.476	0.022
655620	0.791	0.479	0.034	1.000	0.618	97.956
655630	0.367	0.147	0.376	0.578	0.320	0.059
655780	0.672	0.550	0.080	0.711	0.551	0.055
655850	0.556	0.750	0.043	0.957	0.367	17.455
655920	0.596	0.591	0.057	0.732	0.081	1.222
655940	0.478	0.130	0.532	0.449	0.038	0.768
655990	0.373	0.133	0.722	0.511	0.127	0.658

Appendix H: Domestic Rainwater Harvesting Reliabilities Using the 1st-Order Markov Model

1st-Order Markov Model

H-2

January DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.1	0.2	0.3	0.4	0.5	0.5	0.8	1.2	1.4	1.5
653190	2	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.2	0.3	0.6	0.8	1.0	1.1	1.4	1.5	1.7	2.6
653300	2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	10	0.6	0.9	1.4	1.7	1.9	2.0	2.2	2.2	2.3	3.1
653350	2	0.5	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	10	1.0	1.9	3.0	3.8	4.5	4.8	5.3	5.3	5.4	6.5
653380	2	0.7	1.3	2.1	2.5	2.9	3.0	3.1	3.1	3.1	3.1
	10	1.0	1.9	3.6	5.2	7.3	8.6	13.2	16.7	19.8	25.9
653440	2	1.1	1.9	2.7	3.1	3.4	3.6	3.7	3.8	3.8	3.8
	10	1.9	3.5	6.0	8.1	10.6	12.0	17.4	21.6	26.3	34.1
653520	2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
	10	0.2	0.5	0.8	1.1	1.5	1.8	2.6	3.2	3.8	5.2
653550	2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	10	0.2	0.4	0.7	1.0	1.3	1.4	1.7	1.7	2.7	7.3
653570	2	0.4	0.6	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1
	10	0.5	1.0	1.6	2.2	2.9	3.3	4.2	4.5	4.7	6.0
653610	2	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	10	1.0	1.7	2.7	3.3	3.9	4.0	4.2	4.3	4.9	7.7
653760	2	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7
	10	1.3	2.1	3.0	3.7	4.2	4.5	5.4	6.4	7.4	9.4
653800	2	0.9	1.4	2.0	2.3	2.5	2.6	2.6	2.6	2.6	2.6
	10	1.3	2.5	4.6	6.4	8.6	9.8	14.1	17.6	20.2	24.1
653870	2	0.6	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	10	1.8	3.1	4.7	5.8	6.9	7.4	8.7	9.3	9.6	10.3
654720	2	0.5	0.8	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	10	1.2	2.2	3.7	4.9	6.2	6.9	8.8	9.7	10.0	10.6
655010	2	0.0	0.1	0.1	0.2	0.3	0.3	0.5	0.6	0.6	0.6
	10	0.1	0.2	0.4	0.7	1.0	1.3	2.9	4.8	6.0	6.6
655020	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
655030	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.0	0.0	0.1	0.1	0.2	0.3	0.8	1.2	1.4	1.8
655050	2	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
	10	0.0	0.0	0.1	0.3	0.5	0.7	1.9	3.3	4.0	4.5
655070	2	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3
	10	0.0	0.0	0.1	0.2	0.5	0.7	1.8	3.2	4.2	4.7
655100	2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.3	0.6	1.0	1.3	1.7	1.8	2.1	2.2	2.3	2.9
655160	2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.2	0.4	0.5	0.6	0.7	0.7	1.1	1.6	1.9	2.2
655180	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.0	0.0	0.1	0.2	0.4	0.6	1.1	1.5	1.6	1.8
655220	2	0.5	0.9	1.3	1.5	1.7	1.7	1.8	1.8	1.8	1.8
	10	1.0	1.7	2.7	3.5	4.5	5.1	6.7	7.7	8.3	9.5
655280	2	0.6	0.9	1.0	1.1	1.3	1.4	2.1	2.7	2.9	3.1
	10	1.7	2.8	4.3	5.4	6.4	6.9	8.8	11.3	14.4	20.0
655360	2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	10	0.8	1.4	2.1	2.7	3.3	3.6	4.7	5.7	6.6	9.0

1st-Order Markov Model

H-3

January DRWH Reliability (%)**per capita roof area and storage**

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	0.6	1.1	1.6	1.9	2.0	2.1	2.1	2.1	2.1	2.1
	10	0.9	1.7	3.2	4.4	5.8	6.6	8.6	9.2	10.0	13.6
655480	2	0.5	0.9	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4
	10	1.0	1.9	3.4	4.8	6.5	7.6	11.3	14.2	18.0	26.6
655550	2	1.2	2.1	2.9	3.2	3.4	3.4	3.5	3.5	3.5	3.5
	10	1.9	3.4	6.0	8.1	10.7	12.0	15.9	18.0	19.6	22.8
655570	2	1.5	2.4	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.2
	10	3.9	6.8	11.0	14.2	17.8	19.9	27.4	37.8	54.5	72.7
655600	2	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	1.9	3.3	5.3	6.6	8.1	9.0	12.3	15.0	18.3	25.6
655620	2	0.9	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	10	1.9	3.3	5.8	7.7	9.7	10.7	13.5	15.4	19.1	26.9
655630	2	1.0	1.7	2.2	2.4	2.4	2.5	2.5	2.5	2.5	2.5
	10	1.7	3.1	5.6	7.6	9.7	10.8	13.7	15.2	18.2	25.4
655780	2	1.6	2.7	3.6	4.0	4.3	4.3	4.4	4.4	4.4	4.4
	10	3.9	6.9	11.5	15.5	20.2	23.4	38.9	57.7	75.0	85.9
655850	2	1.6	2.4	2.9	3.1	3.2	3.4	4.4	5.5	6.3	6.6
	10	3.7	6.8	11.7	15.7	19.9	22.3	33.4	51.9	72.8	88.2
655920	2	2.5	4.3	5.7	6.4	6.9	7.2	7.5	7.5	7.5	7.5
	10	7.4	12.9	20.3	26.4	33.1	37.8	59.6	79.8	92.1	97.6
655940	2	0.9	1.3	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0
	10	2.7	4.9	8.4	11.5	15.3	18.0	31.4	49.1	64.5	74.6
655990	2	0.7	1.1	1.3	1.5	1.6	1.6	1.6	1.6	1.6	1.6
	10	1.9	3.5	6.0	8.3	11.3	13.3	22.7	34.7	45.8	54.3

1st-Order Markov Model

H-4

February DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	0.5	0.9	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4
	10	0.8	1.5	2.6	3.4	4.3	4.8	5.8	5.9	6.0	6.0
653190	2	0.4	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	1.2	2.0	2.9	3.6	4.2	4.5	5.1	5.4	5.5	5.6
653300	2	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	10	1.0	1.8	2.8	3.3	3.8	4.0	4.3	4.3	4.3	4.4
653350	2	1.7	2.8	3.9	4.5	4.8	4.9	5.0	5.0	5.0	5.0
	10	3.3	5.7	9.2	11.7	14.2	15.5	18.5	18.9	19.0	19.0
653380	2	1.7	2.5	3.0	3.2	3.3	3.4	3.6	3.7	3.7	3.7
	10	4.4	7.4	11.3	14.0	16.4	17.6	21.1	23.3	24.7	26.0
653440	2	2.2	3.6	5.0	5.6	5.9	5.9	6.0	6.0	6.0	6.0
	10	4.2	7.4	12.0	15.5	19.2	21.1	26.1	28.4	30.1	32.3
653520	2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
	10	0.5	0.9	1.4	1.7	2.0	2.1	2.6	2.9	3.0	3.2
653550	2	1.2	2.0	2.7	3.0	3.2	3.2	3.2	3.2	3.2	3.2
	10	1.8	3.4	5.8	7.7	9.7	10.7	12.9	13.3	13.3	13.3
653570	2	0.3	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
	10	0.7	1.3	2.1	2.7	3.4	3.7	4.9	5.8	6.2	6.4
653610	2	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	10	1.0	1.7	2.8	3.4	4.0	4.3	4.7	4.7	4.7	4.7
653760	2	1.0	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	10	3.3	5.5	8.2	9.7	10.9	11.4	12.3	12.4	12.6	12.9
653800	2	1.8	2.6	3.5	4.1	4.7	5.1	5.8	5.8	5.8	5.8
	10	5.3	9.0	13.6	16.5	19.0	20.3	23.7	25.0	26.0	27.2
653870	2	0.9	1.4	2.2	2.6	2.9	3.0	3.2	3.2	3.2	3.2
	10	3.0	4.9	7.3	8.9	10.4	11.3	13.6	14.1	14.2	14.3
654720	2	0.9	1.6	2.2	2.5	2.6	2.6	2.7	2.7	2.7	2.7
	10	3.0	4.9	7.3	8.9	10.6	11.5	13.8	14.2	14.2	14.3
655010	2	0.3	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8
	10	0.4	0.7	1.2	1.7	2.2	2.4	2.9	3.0	3.2	3.7
655020	2	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.1	0.2	0.4	0.6	0.8	0.9	1.1	1.2	1.2	1.2
655030	2	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.4	0.6	1.0	1.2	1.5	1.6	1.8	1.8	1.8	1.9
655050	2	0.2	0.4	0.6	0.8	0.8	0.9	0.9	0.9	0.9	0.9
	10	0.5	0.8	1.2	1.5	1.9	2.1	2.7	2.8	2.9	3.2
655070	2	0.2	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
	10	0.4	0.7	1.2	1.6	2.0	2.2	2.7	2.7	3.0	3.4
655100	2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.6	1.0	1.5	1.9	2.3	2.5	3.0	3.2	3.3	3.4
655160	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
655180	2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.4	0.6	0.8	0.9	1.0	1.0	1.0	1.0	1.1	1.1
655220	2	0.4	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	10	0.9	1.5	2.5	3.2	4.0	4.5	6.1	7.4	8.1	8.5
655280	2	0.6	0.9	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3
	10	1.0	1.9	3.3	4.3	5.5	6.0	7.2	7.5	8.2	9.7
655360	2	1.6	2.5	3.5	3.8	3.9	3.9	3.9	3.9	3.9	3.9
	10	2.5	4.6	7.8	10.3	12.8	14.0	16.3	16.7	16.8	16.9

1st-Order Markov Model

H-5

February DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	1.6	2.6	3.6	4.1	4.6	4.8	5.0	5.0	5.0	5.0
	10	4.3	7.2	10.9	13.3	15.6	16.9	20.4	22.0	22.7	22.9
655480	2	2.0	2.8	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	10	5.2	9.0	13.7	16.7	19.0	20.0	21.9	22.4	23.0	24.2
655550	2	1.5	2.4	3.0	3.1	3.2	3.2	3.2	3.2	3.2	3.2
	10	2.7	5.0	8.6	11.2	13.9	15.3	19.3	21.6	22.6	23.4
655570	2	4.7	7.1	8.7	9.6	10.2	10.5	11.1	11.2	11.2	11.2
	10	10.8	18.5	28.5	34.7	39.8	42.4	47.4	48.9	51.8	58.0
655600	2	4.2	6.4	7.9	8.3	8.3	8.4	8.4	8.4	8.4	8.4
	10	7.8	13.9	22.3	28.0	32.7	34.8	38.2	38.4	38.8	39.8
655620	2	2.4	3.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	10	6.6	11.4	17.8	21.5	24.3	25.5	27.5	27.8	28.0	28.8
655630	2	1.7	2.4	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0
	10	4.6	7.8	12.1	14.9	17.4	18.6	21.6	22.9	23.4	24.0
655780	2	1.9	2.7	3.3	3.7	4.0	4.1	4.3	4.3	4.3	4.3
	10	7.3	12.2	17.9	21.2	23.9	25.3	29.1	32.7	41.4	55.5
655850	2	4.4	7.1	8.9	9.4	9.5	9.6	9.6	9.6	9.8	10.1
	10	8.6	15.2	24.3	30.6	35.9	38.7	43.9	45.9	52.0	63.8
655920	2	3.5	5.4	6.5	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	10	7.6	13.5	21.5	27.0	31.8	34.6	42.1	50.3	65.7	81.6
655940	2	0.8	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	10	2.5	4.1	6.3	7.8	9.1	9.8	10.9	12.2	18.7	30.9
655990	2	2.0	2.9	3.4	3.7	3.8	3.9	4.0	4.0	4.0	4.0
	10	5.3	9.2	14.4	17.6	20.2	21.3	23.3	24.0	26.7	32.1

1st-Order Markov Model
March DRWH Reliability (%)

H-6

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
653060	2	0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	10	2.0	3.5	5.5	6.9	8.2	8.7	10.1	10.9	11.2	11.2
653190	2	1.4	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	10	4.2	7.1	10.5	12.7	14.6	15.4	17.0	17.2	17.2	17.2
653300	2	2.2	3.4	4.2	4.4	4.5	4.5	4.5	4.5	4.5	4.5
	10	5.9	10.0	15.1	18.5	21.4	22.8	25.2	25.4	25.4	25.4
653350	2	5.0	7.8	9.5	10.0	10.2	10.3	10.4	10.4	10.4	10.4
	10	9.5	16.6	26.3	33.0	38.9	42.0	49.1	51.7	52.3	52.5
653380	2	5.3	8.0	9.3	9.6	9.7	9.7	9.7	9.7	9.7	9.7
	10	10.9	19.6	31.0	38.4	44.0	46.9	52.1	53.1	53.7	54.2
653440	2	5.4	8.9	11.5	12.4	12.8	12.9	13.0	13.0	13.0	13.0
	10	9.6	17.2	27.4	34.6	41.1	44.6	52.9	55.5	56.5	57.1
653520	2	1.9	3.3	4.7	5.5	5.9	6.1	6.2	6.2	6.2	6.2
	10	3.0	5.3	8.8	11.5	14.5	16.1	19.7	20.4	20.4	20.5
653550	2	2.2	3.5	4.3	4.6	4.6	4.7	4.7	4.7	4.7	4.7
	10	5.4	9.3	14.6	18.3	21.6	23.3	27.6	29.3	29.8	29.9
653570	2	1.1	1.7	2.4	2.9	3.3	3.5	3.8	3.9	3.9	3.9
	10	4.5	7.5	10.8	12.7	14.3	15.0	17.0	17.5	17.6	17.7
653610	2	2.6	3.6	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10	6.3	11.0	17.1	20.9	23.8	25.0	26.7	26.8	26.8	26.9
653760	2	3.4	5.5	7.0	7.4	7.6	7.6	7.6	7.6	7.6	7.6
	10	7.5	12.9	20.1	25.1	29.3	31.5	36.0	36.4	36.4	36.5
653800	2	4.8	7.4	8.9	9.3	9.5	9.6	10.2	10.6	10.7	10.7
	10	10.2	17.8	27.9	34.5	40.1	42.8	48.9	51.0	52.0	52.3
653870	2	3.5	5.8	8.1	9.2	9.8	10.0	10.3	10.4	10.4	10.4
	10	8.3	14.1	21.6	26.5	31.0	33.5	39.6	41.8	42.6	42.7
654720	2	2.7	4.2	5.3	5.6	5.7	5.7	5.8	5.8	5.8	5.8
	10	5.6	9.9	15.9	20.1	23.9	25.9	30.6	32.2	32.6	32.7
655010	2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.8	1.3	1.8	2.2	2.6	2.8	3.5	4.0	4.1	4.2
655020	2	0.6	0.9	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
	10	1.3	2.2	3.4	4.3	5.2	5.7	6.8	7.3	7.5	7.5
655030	2	0.5	0.9	1.4	1.7	2.0	2.2	2.3	2.3	2.3	2.3
	10	1.8	2.9	4.3	5.1	6.1	6.6	8.2	8.7	8.8	8.8
655050	2	0.5	0.9	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.5
	10	2.7	4.3	5.8	6.7	7.5	8.0	9.4	10.2	10.5	10.6
655070	2	1.4	2.6	4.0	4.9	5.5	5.8	6.3	6.3	6.3	6.3
	10	3.0	5.1	7.8	9.9	12.2	13.4	16.8	17.9	18.1	18.1
655100	2	1.1	1.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	10	3.6	6.0	8.7	10.3	11.7	12.2	13.1	13.3	13.4	13.4
655160	2	0.5	0.9	1.4	1.7	1.9	2.0	2.2	2.2	2.2	2.2
	10	2.3	3.7	5.1	5.9	6.6	7.1	8.4	8.7	8.7	8.7
655180	2	1.2	2.1	2.7	3.0	3.2	3.2	3.3	3.3	3.3	3.3
	10	4.0	6.4	9.1	10.9	12.5	13.4	15.4	15.6	15.6	15.6
655220	2	2.7	4.2	4.9	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	10	5.4	9.3	14.7	18.5	22.2	23.8	26.6	27.0	27.2	27.5
655280	2	1.3	1.7	2.2	2.5	2.8	2.9	3.3	3.4	3.4	3.4
	10	5.4	8.9	12.9	15.1	16.6	17.3	18.9	19.5	19.6	19.6
655360	2	2.5	4.1	5.5	6.1	6.3	6.4	6.4	6.4	6.4	6.4
	10	6.3	10.9	16.8	20.9	24.9	27.1	32.8	34.7	35.2	35.3

1st-Order Markov Model

H-7

March DRWH Reliability (%)**per capita roof area and storage**

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	3.9	6.4	8.3	8.9	9.2	9.3	9.5	9.5	9.5	9.5
	10	7.7	13.5	21.4	27.2	32.4	35.3	42.2	45.0	46.2	46.6
655480	2	6.9	11.2	15.1	16.9	17.9	18.4	18.8	18.8	18.8	18.8
	10	16.2	27.7	41.6	50.0	56.3	59.5	65.1	65.6	65.6	65.7
655550	2	4.2	6.6	9.2	10.9	12.1	12.8	13.9	13.9	13.9	13.9
	10	10.5	18.1	27.7	33.9	38.9	41.5	47.4	48.7	49.1	49.4
655570	2	8.7	13.4	15.9	17.2	18.2	19.0	21.0	21.5	21.5	21.5
	10	20.9	34.7	50.8	60.3	67.4	70.9	78.2	80.0	80.6	81.6
655600	2	6.2	9.8	12.2	12.8	13.0	13.0	13.0	13.0	13.0	13.0
	10	13.0	23.2	36.2	44.9	51.9	55.9	65.1	67.1	67.3	67.4
655620	2	6.7	10.8	13.2	13.8	14.0	14.1	14.1	14.1	14.1	14.1
	10	13.9	24.0	36.4	44.5	51.0	54.4	60.1	60.7	60.7	60.7
655630	2	4.6	6.6	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	10	13.2	22.7	33.5	40.0	44.6	47.0	50.9	51.4	51.7	51.8
655780	2	5.4	9.1	11.9	13.1	13.6	13.8	14.1	14.2	14.2	14.2
	10	12.8	21.9	32.9	40.3	46.3	49.5	55.7	57.3	58.6	61.3
655850	2	6.5	10.9	13.8	14.7	15.0	15.1	15.2	15.2	15.2	15.2
	10	13.9	24.6	37.7	46.5	53.7	58.0	68.0	70.4	71.4	73.7
655920	2	4.0	6.6	8.6	9.4	9.7	9.7	9.8	9.8	9.8	9.8
	10	10.0	17.2	26.5	32.9	38.6	42.0	50.8	54.3	58.5	66.3
655940	2	3.0	4.7	5.9	6.3	6.4	6.4	6.4	6.4	6.4	6.4
	10	6.3	11.1	17.7	22.2	26.1	28.0	32.0	32.6	32.7	33.3
655990	2	2.8	4.3	5.4	5.6	5.7	5.8	5.8	5.8	5.8	5.8
	10	6.5	11.2	17.6	22.1	26.2	28.3	33.5	34.9	35.4	36.0

**1st-Order Markov Model
April DRWH Reliability (%)**

H-8

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	2.5	4.0	5.0	5.3	5.4	5.4	5.4	5.4	5.4	5.4
	10	6.6	11.2	17.1	21.0	24.3	26.0	29.4	29.8	29.9	29.9
653190	2	6.6	10.9	13.6	14.4	14.7	14.7	14.7	14.7	14.7	14.7
	10	15.1	26.1	38.9	46.9	52.9	56.1	61.3	61.7	61.7	61.7
653300	2	6.0	9.7	12.4	13.1	13.3	13.4	13.4	13.4	13.4	13.4
	10	11.1	19.8	31.4	39.2	45.9	49.3	56.6	58.0	58.2	58.2
653350	2	9.0	14.6	18.1	19.1	19.4	19.4	19.5	19.5	19.5	19.5
	10	18.2	31.6	48.0	58.1	65.9	69.9	78.8	80.7	81.3	81.6
653380	2	10.0	16.4	20.3	21.4	21.6	21.7	21.7	21.7	21.7	21.7
	10	20.3	35.4	53.0	63.4	70.7	74.7	82.4	83.7	83.9	84.0
653440	2	10.5	16.9	21.6	23.7	25.0	25.8	26.8	26.9	26.9	26.9
	10	19.8	33.9	51.7	62.4	70.5	74.5	82.9	85.0	85.6	85.9
653520	2	3.1	4.5	5.2	5.4	5.6	5.6	5.8	5.8	5.8	5.8
	10	7.9	13.7	21.3	26.1	30.2	32.5	38.9	42.6	43.9	44.1
653550	2	6.0	9.0	10.4	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	10	13.6	24.0	36.7	44.6	50.5	53.6	59.4	60.5	61.0	61.2
653570	2	4.9	7.0	8.0	8.2	8.4	8.5	8.8	8.9	9.0	9.0
	10	14.2	24.2	35.8	42.3	46.9	49.1	53.2	54.8	55.5	55.6
653610	2	5.3	8.6	10.9	11.5	11.7	11.7	11.7	11.7	11.7	11.7
	10	14.5	25.1	37.1	44.6	50.2	53.4	59.0	59.5	59.5	59.5
653760	2	7.8	12.8	16.1	17.1	17.5	17.6	17.7	17.7	17.7	17.7
	10	16.5	28.6	43.0	52.2	59.3	63.2	71.3	72.8	73.0	73.0
653800	2	7.5	12.5	16.3	17.5	17.9	18.0	18.0	18.1	18.2	18.3
	10	14.4	25.9	40.7	50.4	58.2	62.5	72.5	75.1	75.9	76.4
653870	2	6.4	11.4	16.0	18.4	19.8	20.5	21.1	21.2	21.2	21.2
	10	14.4	24.4	36.8	45.1	52.3	56.5	67.5	71.2	72.3	72.6
654720	2	4.8	8.4	12.4	14.5	15.8	16.3	16.9	16.9	16.9	16.9
	10	9.7	16.9	26.6	33.6	40.3	44.1	53.4	55.8	56.5	56.7
655010	2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	1.1	1.8	2.4	2.6	2.7	2.8	2.9	3.0	3.0	3.1
655020	2	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	10	2.0	3.3	4.7	5.5	6.2	6.6	7.5	8.0	8.2	8.3
655030	2	2.3	3.2	3.7	3.8	3.8	3.9	4.0	4.1	4.1	4.1
	10	5.1	9.0	14.2	17.5	20.3	21.5	24.4	26.0	27.0	27.3
655050	2	1.5	2.3	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	10	4.0	6.8	10.2	12.6	14.7	15.8	18.2	19.1	19.5	19.7
655070	2	1.8	2.6	3.1	3.3	3.6	3.8	4.3	4.5	4.5	4.5
	10	5.5	9.3	14.1	17.2	19.9	21.4	26.9	31.4	33.7	34.4
655100	2	3.4	5.2	6.1	6.4	6.4	6.4	6.4	6.4	6.4	6.4
	10	8.9	15.0	22.7	27.8	31.9	33.9	37.4	37.7	37.8	37.8
655160	2	2.8	4.4	5.9	6.7	7.2	7.4	7.7	7.7	7.7	7.7
	10	8.3	14.0	20.8	24.8	28.3	30.1	34.5	36.1	36.8	36.9
655180	2	2.6	4.3	5.6	6.0	6.2	6.3	6.3	6.3	6.3	6.3
	10	7.1	11.9	17.8	21.9	25.6	27.6	33.3	35.3	35.9	36.1
655220	2	5.0	7.9	9.8	10.3	10.4	10.4	10.4	10.4	10.4	10.4
	10	10.9	19.1	29.8	37.0	43.0	46.1	53.1	54.6	54.8	54.8
655280	2	6.1	9.4	11.0	11.3	11.5	11.5	11.9	12.2	12.3	12.3
	10	14.0	24.4	36.8	44.3	49.8	52.6	57.1	58.1	58.4	58.5
655360	2	5.9	9.5	12.3	13.2	13.6	13.7	13.7	13.7	13.7	13.7
	10	13.8	24.0	36.5	44.2	50.5	53.8	61.7	63.9	64.6	64.8

1st-Order Markov Model
April DRWH Reliability (%)

H-9

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655450	2	8.7	13.2	16.3	17.5	18.2	18.5	19.0	19.0	19.0	19.0
	10	17.8	31.1	47.5	57.3	64.8	68.5	76.3	78.4	79.2	79.6
655480	2	10.2	17.9	24.7	27.7	29.3	30.0	31.0	31.1	31.1	31.1
	10	19.4	34.1	52.1	63.4	72.0	76.7	87.8	90.2	90.4	90.5
655550	2	9.3	14.7	18.5	20.3	21.6	22.5	24.7	25.3	25.4	25.4
	10	18.0	31.2	47.9	58.0	65.8	69.6	78.2	81.0	81.6	81.7
655570	2	11.4	18.5	23.9	26.4	27.9	28.8	31.6	33.0	33.4	33.5
	10	24.6	42.6	62.7	73.9	81.4	85.5	93.3	94.7	95.0	95.3
655600	2	10.1	15.7	18.9	19.8	20.2	20.4	20.9	20.9	20.9	20.9
	10	20.5	36.0	54.6	65.4	73.3	77.3	86.1	88.1	88.5	88.5
655620	2	10.4	16.8	21.1	22.4	22.7	22.8	22.9	22.9	22.9	22.9
	10	17.8	31.9	49.9	61.1	69.9	74.5	85.1	87.0	87.2	87.2
655630	2	9.1	13.7	16.0	16.4	16.5	16.5	16.5	16.5	16.5	16.5
	10	19.1	33.5	50.6	60.7	67.9	71.6	78.1	78.8	78.9	78.9
655780	2	10.4	17.6	22.8	24.6	25.4	25.7	25.9	25.9	26.0	26.0
	10	18.8	33.3	50.8	61.6	69.8	74.3	84.2	86.3	86.9	87.3
655850	2	9.2	15.7	20.5	22.2	22.8	23.0	23.2	23.2	23.2	23.2
	10	20.3	35.5	52.6	63.0	70.6	75.0	85.7	88.3	89.0	89.6
655920	2	8.5	14.5	18.7	20.1	20.7	21.0	21.1	21.1	21.1	21.1
	10	18.3	31.4	46.4	56.0	63.3	67.5	76.6	79.1	80.2	81.8
655940	2	6.5	10.8	14.0	15.1	15.5	15.6	15.7	15.7	15.7	15.7
	10	13.0	22.6	34.9	43.3	50.4	54.3	62.9	64.7	65.0	65.1
655990	2	8.8	14.8	19.2	20.8	21.4	21.6	21.7	21.7	21.7	21.7
	10	15.0	26.1	40.9	50.5	58.4	62.4	70.3	71.6	71.9	72.1

1st-Order Markov Model
May DRWH Reliability (%)

H-10

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
653060	2	7.9	12.4	15.0	15.6	15.8	15.8	15.9	15.9	15.9	15.9
	10	16.3	28.6	43.5	52.7	59.6	63.1	69.5	70.8	71.0	71.0
653190	2	8.5	13.5	16.0	16.7	16.9	17.0	17.0	17.0	17.0	17.0
	10	18.4	32.4	48.8	59.2	67.0	71.6	82.7	85.0	85.2	85.2
653300	2	10.4	15.5	17.9	18.6	18.9	19.1	19.3	19.3	19.3	19.3
	10	24.4	42.4	61.9	72.2	78.9	82.4	88.7	90.1	90.3	90.3
653350	2	9.2	14.5	17.4	18.2	18.4	18.5	18.5	18.5	18.5	18.5
	10	19.9	35.0	53.0	64.2	72.6	77.4	89.6	92.6	93.1	93.2
653380	2	10.6	16.8	20.2	21.1	21.4	21.5	21.5	21.5	21.5	21.5
	10	22.3	39.0	58.1	69.6	78.0	82.6	93.2	95.0	95.2	95.2
653440	2	14.2	24.8	32.6	35.9	37.5	38.4	40.8	41.5	41.6	41.6
	10	25.8	45.2	66.0	77.6	85.3	89.3	96.5	97.6	97.8	97.8
653520	2	7.2	11.0	12.9	13.3	13.3	13.4	13.4	13.4	13.4	13.4
	10	15.2	26.6	40.6	49.4	56.2	59.8	65.9	67.4	68.4	69.1
653550	2	10.0	15.2	16.9	17.1	17.2	17.2	17.2	17.2	17.2	17.2
	10	24.3	42.1	60.2	70.3	77.0	80.5	86.6	87.5	87.6	87.7
653570	2	8.2	13.0	16.1	17.4	17.9	18.1	18.3	18.3	18.3	18.3
	10	19.9	33.7	49.7	59.4	66.6	70.5	78.3	79.6	80.1	80.3
653610	2	7.8	12.3	15.1	16.1	16.6	16.7	16.8	16.8	16.8	16.8
	10	22.8	38.8	55.8	65.3	72.0	75.7	83.7	85.2	85.4	85.4
653760	2	10.1	15.7	19.4	21.1	22.2	22.8	23.7	23.8	23.8	23.8
	10	21.9	37.5	55.9	66.8	75.0	79.4	89.4	91.6	91.9	92.0
653800	2	10.6	17.9	23.4	25.4	26.2	26.5	26.7	26.7	26.7	26.7
	10	18.6	33.0	51.1	62.6	71.6	76.6	88.2	90.8	91.4	91.7
653870	2	10.4	18.3	24.1	26.5	27.7	28.4	29.4	29.4	29.4	29.4
	10	20.6	36.2	53.9	64.9	72.9	77.5	88.1	91.4	92.3	92.5
654720	2	7.7	12.2	15.1	16.1	16.7	17.1	17.8	18.0	18.0	18.0
	10	14.3	25.1	39.6	49.1	57.2	61.6	74.0	79.1	80.4	80.7
655010	2	1.6	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	10	4.6	7.8	11.7	14.2	16.0	16.7	17.7	17.7	17.7	17.7
655020	2	2.3	3.7	5.1	5.9	6.4	6.6	6.8	6.8	6.8	6.8
	10	8.2	13.7	19.7	23.1	25.9	27.3	30.5	30.9	31.0	31.0
655030	2	4.7	6.6	7.8	8.4	8.8	9.1	9.4	9.4	9.4	9.4
	10	13.8	23.8	35.6	42.4	47.3	49.7	54.0	54.8	55.3	55.7
655050	2	4.7	7.4	9.0	9.3	9.4	9.5	9.5	9.5	9.5	9.5
	10	11.4	19.5	29.5	36.0	41.3	44.1	49.5	50.3	50.5	50.6
655070	2	5.6	8.8	11.6	13.1	14.0	14.4	14.9	15.0	15.0	15.0
	10	14.8	25.3	37.7	45.0	50.6	53.4	58.7	59.8	61.0	62.2
655100	2	6.3	9.8	11.8	12.2	12.4	12.4	12.4	12.4	12.4	12.4
	10	16.2	28.1	42.1	50.6	56.8	60.1	66.8	67.9	68.0	68.0
655160	2	6.0	9.3	10.9	11.4	11.6	11.7	11.8	11.8	11.8	11.8
	10	15.0	25.9	39.0	47.1	53.3	56.6	64.1	66.6	67.4	67.6
655180	2	5.7	8.2	9.2	9.4	9.4	9.4	9.5	9.5	9.5	9.5
	10	14.3	25.1	38.1	46.0	51.8	54.9	61.5	63.5	64.1	64.4
655220	2	7.6	12.2	15.2	15.9	16.1	16.2	16.2	16.2	16.2	16.2
	10	15.9	28.1	43.0	52.7	60.3	64.5	74.2	76.8	77.3	77.3
655280	2	7.4	11.6	14.2	14.9	15.1	15.1	15.1	15.1	15.2	15.3
	10	18.0	31.6	47.9	57.7	65.2	69.4	78.8	80.7	81.1	81.3
655360	2	9.6	15.6	19.5	20.6	20.9	21.0	21.1	21.1	21.1	21.1
	10	19.9	34.9	52.5	63.2	71.0	75.4	84.8	87.1	87.6	87.7

1st-Order Markov Model
May DRWH Reliability (%)

H-11

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655450	2	12.1	19.7	24.1	25.4	26.0	26.4	27.3	27.5	27.5	27.5
	10	22.7	40.1	59.7	71.2	79.3	83.6	92.1	93.7	94.1	94.3
655480	2	10.7	17.2	21.3	22.8	23.4	23.8	24.5	24.5	24.5	24.5
	10	21.2	37.7	56.9	68.6	77.2	82.1	93.9	96.7	97.4	97.4
655550	2	7.8	12.4	15.4	16.5	17.1	17.5	19.4	20.7	21.1	21.2
	10	17.5	30.7	47.4	58.0	66.7	71.9	85.7	89.9	91.1	91.4
655570	2	13.7	22.6	27.1	28.7	29.6	30.1	31.4	32.1	32.8	33.2
	10	32.9	54.0	74.1	84.3	90.3	93.3	98.4	99.2	99.4	99.4
655600	2	9.9	15.7	18.7	19.5	19.8	20.0	20.7	21.3	21.4	21.5
	10	24.3	42.3	61.7	72.7	80.3	84.8	94.3	96.0	96.3	96.4
655620	2	11.9	19.7	24.2	25.5	25.9	26.1	26.2	26.2	26.2	26.2
	10	24.3	42.5	62.1	73.4	81.0	85.3	94.4	96.4	96.8	96.8
655630	2	11.1	18.3	22.5	23.7	24.0	24.0	24.1	24.1	24.1	24.1
	10	23.9	41.8	61.4	72.7	80.3	84.5	92.8	93.8	93.9	93.9
655780	2	18.6	33.0	42.8	46.8	48.7	49.5	50.0	50.0	50.0	50.0
	10	31.3	54.1	74.3	84.4	90.2	93.1	97.7	98.5	98.7	98.7
655850	2	17.0	30.5	39.3	43.0	44.7	45.4	45.8	45.8	45.8	45.8
	10	32.9	56.2	76.3	85.8	91.0	93.5	97.9	98.7	98.8	98.9
655920	2	20.9	38.4	50.1	55.7	58.5	59.7	60.5	60.5	60.5	60.5
	10	39.2	62.1	80.2	88.4	92.8	94.8	97.9	98.3	98.5	98.6
655940	2	16.2	29.2	38.3	42.3	44.2	44.9	45.4	45.4	45.4	45.4
	10	29.4	49.1	68.1	78.3	84.6	87.7	93.0	94.1	94.3	94.3
655990	2	17.5	30.9	39.8	43.4	45.1	45.8	46.2	46.2	46.2	46.2
	10	32.7	52.8	72.2	82.2	88.3	91.0	95.8	96.7	96.8	96.8

1st-Order Markov Model
June DRWH Reliability (%)

H-12

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
653060	2	13.6	22.0	26.9	28.1	28.4	28.5	28.5	28.5	28.5	28.5
	10	25.2	44.4	65.5	76.8	84.1	87.8	94.0	94.7	94.8	94.8
653190	2	12.5	20.2	23.7	24.5	24.7	24.7	24.8	24.8	24.8	24.8
	10	29.5	49.7	69.4	79.6	85.8	89.1	95.3	96.6	96.8	96.8
653300	2	12.7	21.5	26.1	27.5	28.0	28.2	28.5	28.6	28.6	28.6
	10	27.2	47.2	67.6	78.7	85.8	89.8	96.7	97.6	97.7	97.7
653350	2	11.9	19.3	22.4	23.1	23.3	23.3	23.3	23.3	23.3	23.3
	10	27.5	47.7	67.0	77.5	84.1	87.9	95.4	97.4	97.9	98.0
653380	2	13.8	22.9	27.8	29.2	29.6	29.7	29.8	29.8	29.8	29.8
	10	27.0	47.7	68.6	79.8	86.7	90.4	97.2	98.6	98.8	98.8
653440	2	20.2	37.2	49.6	55.3	58.4	59.9	61.3	61.7	61.8	61.8
	10	33.9	58.0	78.5	88.3	93.5	96.1	99.5	99.8	99.9	99.9
653520	2	8.1	13.1	17.2	19.3	20.6	21.3	22.2	22.2	22.2	22.2
	10	20.5	35.4	52.5	62.7	70.1	74.4	84.3	86.5	86.8	87.0
653550	2	14.0	23.5	28.5	29.8	30.2	30.3	30.3	30.3	30.3	30.3
	10	28.4	49.6	70.1	80.9	87.4	91.0	96.9	97.6	97.7	97.7
653570	2	11.3	19.0	24.6	26.6	27.5	27.9	28.2	28.2	28.2	28.2
	10	23.5	40.5	59.9	71.0	78.9	83.1	92.1	93.8	94.1	94.2
653610	2	13.0	20.6	23.6	24.2	24.4	24.5	24.5	24.5	24.5	24.5
	10	30.0	52.0	72.1	82.0	87.6	90.8	95.9	96.7	96.9	96.9
653760	2	11.9	21.2	28.0	30.9	32.3	33.1	34.6	35.0	35.0	35.0
	10	27.6	46.8	66.4	77.3	84.5	88.6	96.1	97.6	98.0	98.0
653800	2	9.6	16.7	22.4	25.2	26.6	27.2	27.7	27.7	27.7	27.7
	10	24.2	41.0	59.1	70.2	78.2	83.0	94.2	96.9	97.4	97.6
653870	2	11.4	20.1	26.1	28.6	29.7	30.2	30.7	30.7	30.7	30.7
	10	23.2	40.8	59.6	70.9	78.9	83.8	94.7	97.3	98.0	98.2
654720	2	9.3	15.6	19.5	20.8	21.2	21.3	21.4	21.4	21.4	21.4
	10	16.9	30.7	46.6	57.3	65.7	70.7	83.4	87.9	89.9	90.5
655010	2	4.5	6.6	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6
	10	12.1	21.0	31.8	38.2	42.8	45.1	48.4	48.7	48.7	48.7
655020	2	6.5	10.4	13.2	14.3	14.8	15.0	15.4	15.5	15.5	15.5
	10	17.3	30.1	44.3	52.6	58.5	61.7	68.5	70.5	70.9	70.9
655030	2	7.5	11.5	13.8	14.4	14.7	14.9	15.3	15.4	15.4	15.4
	10	21.2	37.1	54.1	63.4	69.7	73.1	79.6	80.7	81.0	81.2
655050	2	8.8	13.3	16.3	17.7	18.7	19.2	20.1	20.2	20.2	20.2
	10	20.2	35.6	53.4	63.4	70.4	74.0	81.0	82.2	82.4	82.4
655070	2	10.8	16.9	20.9	22.7	23.9	24.6	25.9	26.0	26.0	26.0
	10	24.0	41.1	60.1	70.6	77.6	81.2	87.7	89.1	89.3	89.5
655100	2	10.8	17.3	20.3	21.0	21.1	21.2	21.2	21.2	21.2	21.2
	10	24.2	42.4	61.5	72.0	78.9	82.7	89.5	90.6	90.8	90.8
655160	2	9.9	14.9	16.7	17.0	17.0	17.0	17.0	17.0	17.0	17.0
	10	23.0	40.6	59.5	69.7	76.4	80.1	87.1	88.8	89.4	89.6
655180	2	13.1	20.7	24.6	25.4	25.6	25.6	25.6	25.6	25.6	25.6
	10	25.4	45.0	65.9	76.6	83.1	86.1	90.9	91.6	91.8	91.9
655220	2	12.1	18.7	22.2	23.2	23.7	23.9	24.1	24.1	24.1	24.1
	10	25.2	43.6	64.0	75.0	82.0	85.7	92.5	93.9	94.2	94.3
655280	2	10.3	16.1	19.0	19.7	19.8	19.9	19.9	19.9	19.9	19.9
	10	24.3	42.5	62.2	73.0	80.0	83.9	91.9	93.6	93.9	94.0
655360	2	12.0	18.8	22.8	24.2	24.8	25.0	25.2	25.2	25.2	25.2
	10	25.0	43.3	63.9	75.4	83.2	87.2	95.1	96.7	97.0	97.1

1st-Order Markov Model
June DRWH Reliability (%)

H-13

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655450	2	14.3	23.4	28.2	29.7	30.1	30.2	30.4	30.4	30.5	30.5
	10	27.1	47.4	68.8	80.2	87.5	91.3	97.9	98.9	99.1	99.1
655480	2	14.2	23.2	29.0	31.7	33.4	34.4	35.8	35.8	35.8	35.8
	10	30.9	51.2	71.6	82.0	88.5	91.8	97.7	99.2	99.5	99.5
655550	2	10.0	16.0	19.3	20.2	20.4	20.5	20.5	20.7	21.1	21.5
	10	20.2	35.9	54.2	65.4	73.4	78.0	89.0	93.3	95.0	95.5
655570	2	13.3	22.9	27.8	29.3	29.8	29.9	30.0	30.1	30.2	30.5
	10	33.7	56.1	76.1	86.2	92.2	95.2	99.5	99.9	99.9	99.9
655600	2	9.6	17.3	23.8	27.1	28.8	29.6	30.4	30.5	30.7	30.8
	10	26.1	44.4	62.8	73.6	81.1	85.7	95.6	97.7	98.2	98.2
655620	2	10.8	18.6	23.2	24.7	25.3	25.5	25.6	25.6	25.6	25.6
	10	25.9	44.8	64.0	75.2	82.7	87.3	96.8	98.6	99.0	99.0
655630	2	10.6	16.4	19.0	20.0	20.6	21.0	21.5	21.5	21.5	21.5
	10	28.2	46.5	65.6	76.5	83.8	88.0	96.7	98.2	98.4	98.4
655780	2	23.9	44.6	59.4	67.0	71.1	73.4	75.5	75.5	75.5	75.5
	10	41.3	66.3	85.5	93.3	96.9	98.5	99.9	100.0	100.0	100.0
655850	2	23.6	44.5	58.0	64.6	68.1	69.8	71.2	71.2	71.2	71.2
	10	44.8	69.9	87.7	94.7	97.7	98.9	99.9	100.0	100.0	100.0
655920	2	23.1	43.6	58.7	66.6	71.5	74.5	78.7	78.8	78.8	78.8
	10	39.2	64.9	84.4	92.8	96.7	98.3	99.9	100.0	100.0	100.0
655940	2	18.4	34.8	46.3	52.1	55.3	57.2	59.3	59.3	59.3	59.3
	10	38.2	62.6	81.7	90.4	94.9	97.0	99.6	99.7	99.8	99.8
655990	2	19.7	36.7	49.0	55.3	58.8	60.7	62.5	62.5	62.5	62.5
	10	36.0	59.2	79.5	89.1	94.4	96.9	99.7	99.9	99.9	99.9

1st-Order Markov Model
July DRWH Reliability (%)

H-14

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
653060	2	17.6	30.0	37.2	39.7	40.5	40.8	40.9	40.9	40.9	40.9
	10	31.4	54.2	76.2	86.6	92.5	95.2	99.1	99.5	99.5	99.5
653190	2	15.6	25.4	29.4	30.4	30.6	30.7	30.7	30.7	30.7	30.7
	10	34.5	59.5	79.9	89.0	93.8	96.1	99.3	99.6	99.7	99.7
653300	2	15.2	27.4	35.3	38.4	39.8	40.4	40.7	40.7	40.7	40.7
	10	31.8	53.7	74.0	84.4	90.6	93.8	99.0	99.5	99.6	99.6
653350	2	12.6	22.0	28.1	30.4	31.3	31.6	31.9	31.9	31.9	31.9
	10	23.1	40.7	59.8	72.0	81.0	86.1	96.7	98.6	99.0	99.1
653380	2	11.7	20.6	26.6	28.8	29.7	30.1	30.3	30.3	30.3	30.3
	10	21.4	39.1	58.7	71.0	80.0	85.5	97.0	99.2	99.6	99.6
653440	2	5.9	11.6	16.8	20.3	23.0	25.0	30.1	31.0	31.2	31.2
	10	14.3	25.7	39.7	50.8	61.1	68.3	91.5	99.1	99.9	100.0
653520	2	14.5	24.6	31.5	34.2	35.5	36.2	37.6	37.8	37.8	37.8
	10	24.5	44.1	65.2	76.8	84.1	88.0	95.2	96.7	97.0	97.0
653550	2	15.9	29.3	37.9	41.3	42.8	43.5	44.0	44.0	44.0	44.0
	10	31.5	55.5	76.2	86.3	92.0	95.0	99.2	99.6	99.7	99.7
653570	2	12.7	20.8	24.9	26.0	26.5	26.7	26.9	26.9	26.9	26.9
	10	30.1	52.4	73.1	83.2	89.2	92.4	97.9	98.8	99.0	99.0
653610	2	16.8	29.8	36.2	38.3	39.1	39.3	39.3	39.3	39.3	39.3
	10	38.2	64.4	83.7	91.7	95.6	97.5	99.6	99.8	99.8	99.8
653760	2	12.9	22.7	28.4	30.7	31.8	32.4	33.3	33.5	33.6	33.6
	10	31.5	52.2	71.3	81.8	88.3	91.9	98.3	99.5	99.6	99.7
653800	2	5.1	8.0	9.7	10.4	11.0	11.3	12.0	12.0	12.0	12.0
	10	13.3	23.8	36.5	45.7	53.8	59.7	81.6	92.8	96.0	96.7
653870	2	5.0	8.7	11.6	12.9	13.5	13.8	14.1	14.1	14.1	14.1
	10	10.3	18.7	30.2	39.5	48.6	55.0	79.3	92.5	96.6	97.6
654720	2	4.6	8.3	11.2	12.5	13.1	13.3	13.5	13.5	13.5	13.5
	10	8.5	15.8	25.8	34.1	42.3	48.0	69.2	81.4	86.2	87.8
655010	2	9.2	14.4	17.1	17.7	17.8	17.8	17.8	17.8	17.8	17.8
	10	18.9	34.7	53.0	63.4	70.2	74.0	80.3	80.9	80.9	80.9
655020	2	12.5	19.5	22.8	23.6	23.8	23.9	23.9	23.9	23.9	23.9
	10	26.1	45.4	65.5	76.1	82.6	85.9	92.0	93.0	93.3	93.4
655030	2	14.4	23.7	28.7	30.1	30.5	30.6	30.7	30.7	30.7	30.7
	10	28.1	50.1	71.8	82.1	88.0	91.0	95.7	96.3	96.4	96.4
655050	2	15.1	24.5	29.5	31.1	31.8	32.3	33.8	34.3	34.4	34.4
	10	29.9	51.7	73.3	83.6	89.4	92.3	96.5	97.1	97.2	97.2
655070	2	14.6	24.7	31.1	33.3	34.3	34.8	35.7	36.0	36.0	36.0
	10	28.9	50.7	72.3	83.1	89.5	92.7	97.8	98.4	98.5	98.6
655100	2	13.8	22.4	26.6	27.6	27.9	28.0	28.0	28.0	28.0	28.0
	10	28.5	50.2	71.3	82.1	88.6	92.0	97.6	98.3	98.3	98.3
655160	2	15.4	25.3	30.3	31.6	32.0	32.1	32.1	32.1	32.1	32.1
	10	30.2	52.8	74.5	84.8	90.5	93.3	97.4	97.9	98.0	98.1
655180	2	14.5	25.4	32.9	35.8	36.9	37.3	37.5	37.5	37.5	37.5
	10	25.9	46.1	67.7	79.6	87.3	91.4	98.1	98.6	98.7	98.7
655220	2	14.6	24.5	29.9	31.5	32.1	32.4	32.9	32.9	33.0	33.0
	10	29.3	51.1	72.6	83.4	89.7	93.0	98.0	98.8	98.8	98.9
655280	2	15.4	26.2	33.7	37.6	39.9	41.2	42.8	42.8	42.8	42.8
	10	34.5	56.8	77.3	86.8	92.1	94.6	98.4	99.0	99.1	99.1
655360	2	13.8	22.5	27.4	28.8	29.4	29.6	29.8	29.8	29.8	29.8
	10	26.0	45.5	66.7	78.4	86.1	90.1	97.6	98.8	99.1	99.1

1st-Order Markov Model
July DRWH Reliability (%)

H-15

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655450	2	7.0	11.6	14.2	15.0	15.3	15.4	15.4	15.4	15.4	15.4
	10	15.4	27.8	43.5	54.7	64.5	71.0	91.4	98.0	99.1	99.2
655480	2	15.2	27.1	33.7	36.4	38.1	39.2	42.8	43.8	43.9	43.9
	10	30.6	54.2	74.1	84.5	90.7	94.2	99.2	99.8	99.9	99.9
655550	2	9.1	16.0	22.1	24.8	26.1	26.6	27.0	27.0	27.0	27.0
	10	15.3	27.1	42.9	54.4	64.4	70.5	87.5	93.7	95.9	96.8
655570	2	4.7	7.5	8.9	9.4	9.6	9.7	9.8	9.8	9.8	9.9
	10	16.8	29.1	43.1	53.1	61.9	68.5	91.2	98.7	99.8	99.9
655600	2	6.2	10.2	12.1	13.1	13.9	14.5	16.1	16.3	16.3	16.4
	10	17.7	31.6	46.2	56.3	64.5	70.4	89.0	96.2	97.9	98.2
655620	2	6.0	9.4	11.0	11.5	11.8	11.8	11.9	11.9	11.9	11.9
	10	14.8	26.8	41.0	51.2	59.9	65.9	87.0	96.2	98.5	98.9
655630	2	5.4	9.6	12.5	13.7	14.3	14.6	15.6	16.1	16.3	16.3
	10	14.6	25.6	39.5	49.4	58.4	64.6	86.3	95.5	97.4	97.7
655780	2	5.6	11.4	17.3	21.8	25.9	29.5	41.4	44.6	44.8	44.8
	10	14.7	26.2	40.2	51.5	62.0	69.5	92.6	99.5	100.0	100.0
655850	2	9.0	18.0	26.0	31.2	35.4	38.8	48.0	49.4	49.4	49.4
	10	20.1	36.8	54.3	66.8	76.6	83.1	97.8	99.9	100.0	100.0
655920	2	8.0	16.5	24.7	30.6	35.5	39.6	53.5	57.1	57.3	57.3
	10	25.8	43.4	60.5	71.7	80.4	86.0	98.2	99.9	99.9	100.0
655940	2	5.6	11.3	16.8	20.5	23.1	25.0	29.5	30.3	30.3	30.3
	10	16.8	29.3	43.7	54.6	64.5	71.6	93.3	99.3	99.9	99.9
655990	2	5.6	10.9	15.9	19.3	22.1	24.1	29.6	30.7	30.8	30.8
	10	13.7	24.5	37.8	48.7	59.0	66.4	90.8	99.1	99.9	100.0

1st-Order Markov Model**August DRWH Reliability (%)****per capita roof area and storage**

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	18.5	32.0	40.0	42.9	44.2	44.8	45.4	45.4	45.4	45.4
	10	34.3	59.5	81.0	90.3	95.1	97.3	99.8	99.9	100.0	100.0
653190	2	22.2	38.3	46.0	48.5	49.4	49.6	49.7	49.7	49.7	49.7
	10	41.6	71.0	89.5	95.6	98.1	99.0	99.9	100.0	100.0	100.0
653300	2	17.4	31.0	39.0	42.2	43.8	44.6	45.5	45.5	45.5	45.5
	10	34.0	57.9	78.4	88.3	93.7	96.4	99.7	99.9	100.0	100.0
653350	2	10.6	18.2	22.7	24.4	25.2	25.6	26.0	26.1	26.1	26.1
	10	23.0	39.9	58.0	69.5	78.0	83.3	95.8	98.8	99.4	99.5
653380	2	8.0	14.0	17.8	19.3	20.1	20.4	20.7	20.7	20.7	20.7
	10	20.0	34.3	49.9	60.7	69.6	75.4	91.9	97.8	99.3	99.6
653440	2	4.5	7.9	10.4	11.4	11.8	12.0	12.4	12.6	12.7	12.8
	10	9.8	17.7	27.4	34.8	41.7	46.5	64.7	81.5	93.5	98.7
653520	2	12.4	20.1	24.2	25.5	26.1	26.4	26.9	27.0	27.0	27.0
	10	26.8	46.8	67.5	79.1	86.6	90.7	98.5	99.5	99.6	99.6
653550	2	24.1	41.3	49.9	53.7	55.9	57.1	58.4	58.4	58.4	58.4
	10	49.1	75.9	92.5	97.1	98.7	99.3	99.9	100.0	100.0	100.0
653570	2	14.8	25.1	30.1	31.5	31.9	32.1	32.1	32.1	32.1	32.1
	10	31.3	54.6	75.3	85.6	91.3	94.5	99.2	99.7	99.8	99.9
653610	2	17.9	30.9	36.8	38.8	39.7	40.1	40.5	40.5	40.5	40.5
	10	40.3	66.3	85.4	93.3	96.9	98.5	100.0	100.0	100.0	100.0
653760	2	12.2	21.5	27.2	29.2	30.0	30.4	30.7	30.7	30.7	30.7
	10	27.5	47.9	68.0	79.3	86.7	90.9	98.7	99.8	99.9	100.0
653800	2	2.5	4.9	6.8	7.7	8.2	8.4	8.7	8.7	8.7	8.7
	10	10.1	16.8	23.6	29.0	34.0	37.7	51.9	67.3	81.6	89.4
653870	2	1.9	3.2	4.1	4.4	4.5	4.6	4.6	4.6	4.6	4.6
	10	7.2	12.0	17.7	22.1	26.4	29.4	43.1	59.5	76.4	87.3
654720	2	1.0	1.4	1.7	1.9	2.0	2.1	2.1	2.1	2.1	2.1
	10	4.7	8.0	11.9	14.6	17.4	19.6	30.8	45.2	59.2	68.3
655010	2	13.0	21.3	26.0	27.2	27.5	27.6	27.7	27.7	27.7	27.7
	10	24.7	44.1	65.0	76.5	83.8	87.8	95.2	96.1	96.1	96.2
655020	2	15.4	25.3	30.2	31.4	31.7	31.8	31.8	31.8	31.8	31.8
	10	31.7	55.4	77.0	87.0	92.2	95.0	98.9	99.2	99.3	99.3
655030	2	16.7	27.6	32.7	34.3	34.8	35.0	35.1	35.1	35.1	35.1
	10	34.0	58.6	80.1	89.6	94.4	96.7	99.6	99.8	99.8	99.8
655050	2	18.9	31.5	37.8	39.6	40.3	40.4	40.6	40.9	41.0	41.0
	10	37.0	63.0	84.2	92.5	96.4	98.1	99.8	99.9	99.9	99.9
655070	2	16.6	27.8	34.8	38.3	40.3	41.4	42.6	42.7	42.7	42.7
	10	37.7	63.2	84.0	92.2	96.1	97.9	99.8	99.9	99.9	99.9
655100	2	22.1	38.7	47.6	50.7	51.8	52.2	52.4	52.4	52.4	52.4
	10	40.2	67.6	87.3	94.3	97.3	98.5	99.8	99.9	99.9	99.9
655160	2	19.7	33.3	39.7	41.7	42.4	42.6	42.7	42.7	42.7	42.7
	10	39.8	66.1	86.0	93.5	96.9	98.4	99.8	99.9	99.9	99.9
655180	2	22.2	38.7	48.1	51.6	53.2	54.0	54.6	54.6	54.6	54.6
	10	39.4	66.0	86.0	93.4	96.8	98.2	99.7	99.9	99.9	99.9
655220	2	17.6	30.4	37.5	39.8	40.7	41.0	41.2	41.3	41.3	41.3
	10	34.1	58.2	79.2	88.9	94.1	96.7	99.7	99.9	99.9	99.9
655280	2	22.3	37.9	45.5	48.8	51.2	52.9	57.3	57.9	57.9	57.9
	10	46.9	73.0	90.9	96.4	98.6	99.3	99.9	100.0	100.0	100.0
655360	2	18.4	30.4	36.8	39.0	40.1	40.7	41.4	41.4	41.4	41.4
	10	36.6	59.9	81.1	90.2	94.9	96.9	99.6	99.9	99.9	99.9

1st-Order Markov Model

H-17

August DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	8.9	15.1	19.4	20.9	21.5	21.6	21.7	21.7	21.7	21.7
	10	15.3	28.0	43.5	54.2	63.0	68.3	83.2	92.2	97.2	98.6
655480	2	19.8	37.7	48.7	53.6	56.0	57.0	58.1	58.8	59.1	59.2
	10	43.8	71.8	89.5	95.4	97.7	98.7	99.9	100.0	100.0	100.0
655550	2	10.3	18.0	23.6	26.0	27.3	27.9	28.7	28.7	28.7	28.7
	10	19.3	34.2	51.3	62.6	71.3	76.5	89.9	95.2	97.3	98.1
655570	2	5.5	9.1	10.7	11.1	11.2	11.2	11.2	11.2	11.2	11.2
	10	18.1	31.3	44.0	52.1	58.1	62.1	75.3	88.5	96.8	99.3
655600	2	9.0	15.2	18.1	18.9	19.2	19.2	19.2	19.2	19.2	19.3
	10	21.6	38.6	55.3	65.4	72.3	76.7	87.5	93.8	97.2	98.3
655620	2	5.5	9.6	12.1	13.0	13.3	13.4	13.5	13.5	13.5	13.5
	10	13.2	23.5	35.0	43.4	50.4	55.1	70.2	82.8	92.2	96.3
655630	2	6.9	11.4	13.9	14.7	15.0	15.1	15.1	15.2	15.3	15.5
	10	15.6	28.0	41.8	51.1	58.5	63.2	77.3	87.4	93.8	96.0
655780	2	2.2	4.5	6.7	7.9	8.6	8.9	9.6	10.5	11.3	11.5
	10	9.2	15.4	21.6	26.7	31.9	35.9	54.9	75.6	91.4	98.4
655850	2	3.5	6.6	8.7	9.7	10.4	10.8	12.2	13.5	14.1	14.1
	10	16.4	28.0	38.5	46.1	52.7	58.1	80.3	93.9	98.8	99.9
655920	2	10.5	19.3	23.8	25.9	27.1	28.0	31.0	34.2	35.9	36.1
	10	31.0	53.5	70.5	79.7	85.4	89.0	96.8	99.3	99.9	100.0
655940	2	2.8	4.7	5.8	6.4	6.8	7.1	7.8	8.1	8.2	8.2
	10	14.7	24.7	33.5	39.6	44.9	49.0	67.4	85.2	95.7	99.3
655990	2	2.4	4.3	5.8	6.5	6.8	7.0	7.2	7.4	7.5	7.5
	10	12.4	20.4	27.7	33.0	37.9	41.7	59.0	77.9	92.3	98.5

1st-Order Markov Model

H-18

September DRWH Reliability (%)
per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	15.5	25.9	31.5	33.6	34.5	35.0	35.6	35.6	35.6	35.6
	10	30.8	53.8	75.9	86.9	93.0	95.9	99.8	100.0	100.0	100.0
653190	2	21.7	36.9	43.5	45.9	47.1	47.6	48.0	48.0	48.0	48.0
	10	46.8	74.7	92.0	97.2	99.0	99.6	100.0	100.0	100.0	100.0
653300	2	18.8	32.4	39.1	41.5	42.6	43.2	44.0	44.0	44.1	44.1
	10	38.6	64.7	84.6	92.7	96.4	98.1	99.9	100.0	100.0	100.0
653350	2	13.1	21.9	26.4	27.7	28.1	28.3	28.4	28.4	28.4	28.4
	10	29.9	51.7	72.0	82.2	88.3	91.6	97.8	99.5	99.8	99.9
653380	2	11.4	18.6	21.9	22.8	23.1	23.2	23.3	23.3	23.3	23.3
	10	24.4	43.2	61.8	72.5	79.7	83.9	92.9	97.2	99.1	99.7
653440	2	9.1	15.0	18.1	19.0	19.2	19.3	19.3	19.3	19.3	19.3
	10	19.5	34.6	50.6	60.4	67.3	71.3	80.4	85.2	90.9	95.7
653520	2	14.2	23.2	26.8	27.6	27.7	27.8	27.8	27.8	27.8	27.8
	10	34.0	57.0	77.0	86.5	92.0	94.7	99.2	99.8	99.9	99.9
653550	2	20.3	34.3	40.1	43.0	45.0	46.6	51.1	51.7	51.7	51.7
	10	47.8	74.5	91.8	97.3	99.2	99.7	100.0	100.0	100.0	100.0
653570	2	15.8	27.4	33.5	35.5	36.3	36.6	36.8	36.8	36.8	36.8
	10	36.1	60.4	81.0	90.0	94.8	97.0	99.9	100.0	100.0	100.0
653610	2	18.4	31.3	37.0	38.8	39.5	39.7	39.9	40.0	40.0	40.0
	10	39.1	66.2	85.8	93.5	97.2	98.7	100.0	100.0	100.0	100.0
653760	2	14.1	23.3	28.5	30.2	30.8	31.1	31.3	31.3	31.3	31.3
	10	28.5	48.8	69.7	80.9	87.9	91.7	98.7	99.8	100.0	100.0
653800	2	7.9	13.3	16.4	17.5	18.0	18.2	18.5	18.5	18.5	18.5
	10	18.2	31.3	45.3	54.2	60.6	64.3	72.7	76.9	81.8	87.4
653870	2	5.4	9.1	11.2	11.8	11.9	12.0	12.0	12.0	12.0	12.0
	10	14.2	24.6	35.8	43.1	48.6	51.9	58.3	61.5	68.1	76.9
654720	2	1.5	2.8	4.2	5.0	5.6	5.9	6.4	6.4	6.4	6.4
	10	9.7	15.6	20.5	23.2	25.3	26.6	29.5	31.0	36.2	44.5
655010	2	6.1	9.3	10.6	11.0	11.2	11.2	11.3	11.3	11.3	11.3
	10	17.1	30.0	45.8	56.6	65.6	71.7	90.8	96.4	97.1	97.2
655020	2	10.1	16.4	20.0	21.0	21.4	21.5	21.6	21.6	21.6	21.6
	10	21.5	38.5	58.4	71.0	80.3	86.0	97.9	99.6	99.7	99.7
655030	2	11.4	18.0	21.9	23.7	24.8	25.5	26.6	26.6	26.6	26.6
	10	27.5	47.8	69.5	81.2	88.8	92.9	99.5	100.0	100.0	100.0
655050	2	11.2	17.7	20.9	21.8	22.2	22.4	22.5	22.5	22.6	22.6
	10	26.8	47.7	69.5	81.4	88.8	93.0	99.6	100.0	100.0	100.0
655070	2	12.3	19.5	23.1	24.5	25.6	26.6	29.8	30.4	30.5	30.5
	10	27.2	47.3	68.4	80.3	88.2	92.6	99.5	100.0	100.0	100.0
655100	2	15.6	26.3	32.2	34.5	35.7	36.5	37.3	37.3	37.3	37.3
	10	33.1	57.6	79.4	89.4	94.7	97.2	99.9	100.0	100.0	100.0
655160	2	12.2	19.8	23.2	24.2	24.6	24.7	24.9	24.9	24.9	24.9
	10	29.0	50.0	71.1	82.7	89.9	93.8	99.7	100.0	100.0	100.0
655180	2	14.0	22.6	27.1	29.0	30.2	31.0	32.0	32.1	32.1	32.1
	10	33.9	57.2	79.2	89.2	94.7	97.1	99.9	100.0	100.0	100.0
655220	2	15.7	25.3	29.5	30.8	31.5	31.8	32.1	32.1	32.2	32.2
	10	36.0	60.9	82.2	91.2	95.7	97.7	99.9	100.0	100.0	100.0
655280	2	19.0	33.1	40.7	43.8	45.5	46.7	50.7	52.2	52.4	52.4
	10	40.9	68.7	88.7	95.6	98.4	99.4	100.0	100.0	100.0	100.0
655360	2	16.4	26.9	31.9	33.6	34.4	34.9	37.1	37.9	38.0	38.0
	10	34.8	59.4	81.4	90.9	95.8	97.8	99.9	100.0	100.0	100.0

1st-Order Markov Model

H-19

September DRWH Reliability (%)
per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	13.5	21.7	25.2	26.2	26.5	26.7	26.8	26.8	26.8	26.8
	10	29.6	51.2	71.2	81.2	87.2	90.2	95.7	97.6	98.7	99.4
655480	2	21.1	36.8	44.9	48.8	51.4	53.4	56.9	57.2	57.5	57.5
	10	43.1	71.1	89.8	96.1	98.6	99.4	100.0	100.0	100.0	100.0
655550	2	13.1	21.8	26.4	27.9	28.5	28.7	29.1	29.1	29.1	29.1
	10	27.7	47.1	66.8	77.8	84.9	88.8	96.1	98.2	99.0	99.4
655570	2	12.7	22.2	27.5	29.1	29.7	29.9	30.0	30.0	30.0	30.0
	10	28.7	48.9	67.3	77.2	83.1	86.3	92.0	94.4	97.2	99.0
655600	2	10.3	18.1	22.7	24.4	25.1	25.3	25.4	25.4	25.4	25.4
	10	30.5	51.1	69.6	79.2	85.3	88.8	95.9	97.7	98.7	99.3
655620	2	9.3	13.6	15.1	15.7	16.1	16.4	16.9	16.9	16.9	16.9
	10	27.9	45.5	62.7	71.9	77.9	81.1	87.9	91.3	94.4	96.9
655630	2	8.4	14.0	16.7	17.4	17.6	17.6	17.7	17.7	17.7	17.7
	10	22.3	38.7	55.2	65.2	72.3	76.8	87.0	91.1	94.5	96.7
655780	2	5.3	10.6	15.5	18.3	20.1	21.0	22.3	22.3	22.3	22.3
	10	13.6	23.4	33.6	40.9	47.0	51.2	62.5	69.1	78.4	88.2
655850	2	7.8	14.1	17.7	18.9	19.3	19.5	19.6	19.6	19.6	19.7
	10	20.7	36.9	51.8	60.9	67.2	71.2	80.5	88.4	95.2	98.6
655920	2	11.9	22.8	29.5	32.7	34.4	35.2	36.0	36.4	36.8	37.2
	10	40.9	66.6	83.0	90.4	94.3	96.3	99.4	99.8	100.0	100.0
655940	2	3.1	5.6	7.0	7.4	7.6	7.6	7.7	7.7	7.7	7.7
	10	16.6	27.7	36.9	42.5	46.6	49.6	58.6	68.2	80.8	91.3
655990	2	3.5	5.3	6.1	6.3	6.4	6.4	6.4	6.4	6.4	6.4
	10	11.0	19.2	27.8	33.3	37.6	40.4	48.8	57.3	70.2	83.4

1st-Order Markov Model

H-20

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	2.7	4.2	5.1	5.5	5.7	5.8	5.9	5.9	5.9	5.9
	10	8.6	15.4	25.5	33.8	42.6	49.2	78.4	96.5	99.8	100.0
653190	2	7.4	11.9	14.0	14.8	15.2	15.3	15.5	15.5	15.5	15.5
	10	21.5	37.1	55.1	67.3	77.0	83.1	97.9	99.9	100.0	100.0
653300	2	8.6	14.1	17.0	18.0	18.4	18.6	18.8	18.8	18.8	18.8
	10	19.7	34.1	51.8	64.2	74.6	81.0	96.9	99.8	100.0	100.0
653350	2	9.6	15.1	17.5	18.1	18.3	18.4	18.5	18.5	18.5	18.5
	10	23.5	41.1	60.3	72.0	80.5	85.7	97.3	99.5	99.8	99.9
653380	2	10.7	17.0	20.2	21.1	21.3	21.4	21.4	21.4	21.4	21.4
	10	21.7	38.6	57.8	69.5	78.2	83.3	95.2	98.2	99.3	99.8
653440	2	12.0	19.9	24.3	25.6	26.0	26.2	26.2	26.2	26.2	26.2
	10	23.5	41.1	60.5	71.8	79.8	84.4	93.6	95.7	96.9	98.1
653520	2	6.1	9.5	11.0	11.4	11.5	11.6	11.6	11.6	11.6	11.6
	10	14.0	24.7	38.9	49.7	60.0	66.8	89.7	98.5	99.7	99.8
653550	2	10.9	17.5	20.5	21.4	22.0	22.4	24.6	26.6	27.3	27.4
	10	26.2	46.8	67.7	79.6	87.5	92.0	99.5	100.0	100.0	100.0
653570	2	9.0	13.9	16.4	17.2	17.5	17.7	17.9	17.9	17.9	17.9
	10	21.3	35.7	53.9	66.0	76.2	82.2	97.0	99.8	100.0	100.0
653610	2	8.8	14.2	16.8	17.6	17.9	18.0	18.1	18.1	18.1	18.1
	10	22.3	37.9	56.5	68.8	78.4	84.3	97.9	99.9	100.0	100.0
653760	2	9.3	14.8	17.4	18.1	18.4	18.5	18.6	18.6	18.6	18.6
	10	21.6	37.9	56.7	68.6	77.7	83.3	96.6	99.5	99.9	100.0
653800	2	9.2	14.1	16.2	16.6	16.8	16.9	16.9	16.9	16.9	16.9
	10	23.1	41.3	59.9	70.3	77.2	81.4	90.2	92.4	93.5	94.8
653870	2	6.8	10.8	13.2	13.9	14.1	14.1	14.2	14.2	14.2	14.2
	10	15.4	27.0	41.2	50.5	58.1	62.7	74.4	77.9	79.7	82.3
654720	2	4.6	7.4	9.1	9.7	10.0	10.2	10.9	11.0	11.0	11.0
	10	13.1	22.2	32.0	38.5	43.7	46.7	54.3	57.1	58.2	59.4
655010	2	1.0	1.8	2.7	3.2	3.4	3.5	3.5	3.5	3.5	3.5
	10	3.2	5.7	9.5	13.1	17.3	20.6	38.0	60.7	77.2	83.8
655020	2	1.9	2.7	3.2	3.3	3.4	3.4	3.5	3.5	3.5	3.5
	10	7.5	13.1	20.7	26.7	33.0	37.8	63.6	86.9	96.4	98.3
655030	2	2.0	3.1	4.0	4.5	5.0	5.4	7.3	8.3	8.6	8.6
	10	9.0	15.8	24.9	31.8	39.2	44.8	73.4	93.9	99.2	99.8
655050	2	3.0	4.6	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.7
	10	9.7	17.2	27.4	35.5	43.5	49.5	77.2	95.0	99.4	99.9
655070	2	2.6	3.7	4.2	4.4	4.4	4.4	4.5	4.7	4.8	4.8
	10	8.8	16.0	25.9	33.4	40.9	46.7	74.9	94.2	99.2	99.9
655100	2	5.0	7.5	8.8	9.1	9.3	9.4	9.5	9.5	9.5	9.5
	10	13.4	24.0	38.2	48.7	58.5	65.3	89.9	99.0	100.0	100.0
655160	2	4.0	6.2	7.4	7.6	7.7	7.7	7.7	7.7	7.7	7.7
	10	11.6	20.5	32.6	41.7	50.7	57.0	83.1	96.8	99.6	100.0
655180	2	3.5	5.0	5.6	5.8	5.8	5.9	5.9	6.0	6.0	6.0
	10	10.3	18.3	29.9	39.0	48.3	54.8	82.8	97.7	99.9	100.0
655220	2	7.1	10.8	12.4	12.7	12.8	12.8	12.9	12.9	12.9	12.9
	10	18.8	33.1	50.9	62.8	72.5	78.9	96.3	99.8	100.0	100.0
655280	2	10.2	15.7	18.8	20.3	21.4	22.1	24.1	25.7	26.5	26.7
	10	29.0	49.5	70.5	81.9	89.3	93.4	99.7	100.0	100.0	100.0
655360	2	7.6	11.7	13.7	14.7	15.3	15.5	16.0	16.6	17.2	17.5
	10	24.1	40.3	58.3	69.8	78.7	84.3	97.8	99.9	100.0	100.0

1st-Order Markov Model

H-21

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	9.2	15.0	17.9	18.7	18.9	18.9	18.9	18.9	18.9	18.9
	10	23.3	39.6	58.1	69.9	78.8	84.3	96.7	98.9	99.4	99.7
655480	2	10.3	17.8	22.5	24.4	25.3	25.7	27.0	27.5	27.6	27.8
	10	26.6	44.4	64.0	76.0	84.9	89.9	99.1	100.0	100.0	100.0
655550	2	7.1	11.3	14.0	15.1	15.5	15.7	15.7	15.7	15.7	15.7
	10	18.8	32.5	49.0	60.0	69.3	75.3	92.9	98.0	99.2	99.5
655570	2	10.1	16.7	20.1	21.2	21.7	22.0	22.2	22.2	22.2	22.2
	10	29.8	51.5	71.2	81.4	87.7	91.5	98.2	99.1	99.4	99.7
655600	2	7.9	12.0	13.8	14.4	14.7	14.9	15.0	15.0	15.0	15.0
	10	21.8	37.9	55.7	67.0	75.3	80.7	95.0	98.3	99.1	99.5
655620	2	9.5	15.2	17.7	18.3	18.5	18.7	19.7	20.4	20.7	20.7
	10	21.8	38.7	57.3	68.7	77.1	82.2	93.3	95.8	97.1	98.1
655630	2	8.5	13.4	15.5	15.9	16.1	16.1	16.1	16.1	16.1	16.1
	10	22.3	39.1	56.7	67.3	74.8	79.6	91.3	94.7	96.3	97.5
655780	2	9.6	17.5	22.9	25.3	26.7	27.5	29.2	29.6	29.6	29.6
	10	22.3	38.4	54.1	63.9	71.1	75.7	87.0	90.6	92.6	94.4
655850	2	14.2	24.9	30.5	32.4	33.2	33.5	33.7	33.7	33.7	33.7
	10	30.5	53.0	71.9	81.6	87.3	90.4	96.0	97.3	98.4	99.3
655920	2	12.3	23.9	31.7	35.5	37.6	38.8	40.5	40.6	40.7	40.7
	10	28.8	51.0	70.3	81.5	88.5	92.7	99.4	99.9	100.0	100.0
655940	2	5.8	10.9	14.2	15.6	16.2	16.4	16.6	16.6	16.6	16.6
	10	18.7	32.1	44.6	52.9	59.0	63.0	72.8	76.7	81.3	87.2
655990	2	7.0	11.2	13.1	13.5	13.6	13.6	13.6	13.6	13.6	13.6
	10	19.8	33.8	47.9	56.5	62.7	66.3	72.8	75.1	78.4	83.6

1st-Order Markov Model

H-22

November DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.2	0.6	1.4	2.4	3.5	4.3	8.8	24.6	53.8	81.1
653190	2	0.8	1.4	1.8	2.1	2.3	2.4	2.5	2.6	2.6	2.6
	10	2.4	4.6	8.5	12.3	17.2	20.8	43.3	73.2	92.4	99.0
653300	2	1.0	1.7	2.3	2.5	2.6	2.6	2.6	2.6	2.6	2.6
	10	1.8	3.7	7.7	11.7	17.0	21.0	43.5	72.6	91.6	98.5
653350	2	1.2	1.8	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	10	3.3	6.4	11.9	17.0	22.9	27.5	52.8	80.4	94.5	98.5
653380	2	2.3	3.9	5.1	5.5	5.7	5.7	5.8	5.8	5.8	5.8
	10	4.4	8.4	15.2	21.5	28.8	34.1	59.5	82.4	93.7	97.6
653440	2	3.5	5.4	6.5	6.9	7.1	7.1	7.2	7.2	7.2	7.2
	10	9.3	16.6	27.0	35.3	43.7	49.6	74.7	89.8	94.3	96.3
653520	2	0.6	1.2	1.9	2.4	2.9	3.1	3.7	3.8	3.8	3.8
	10	1.7	3.4	6.4	9.4	13.2	15.9	30.9	55.3	79.1	93.1
653550	2	2.8	4.5	5.5	5.8	5.9	5.9	5.9	6.1	6.4	6.7
	10	5.8	10.2	17.6	24.5	32.6	38.4	66.3	90.0	98.6	99.9
653570	2	1.3	2.0	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	10	3.0	5.8	10.9	15.6	21.4	25.5	48.2	76.4	93.1	98.7
653610	2	1.4	2.4	3.6	4.2	4.7	4.9	5.1	5.1	5.1	5.1
	10	3.5	6.6	11.9	16.8	23.0	27.6	52.2	79.9	94.8	99.3
653760	2	1.1	1.8	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	10	3.4	6.4	11.6	16.4	22.1	26.5	51.4	79.1	94.2	98.9
653800	2	2.5	3.5	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10	7.4	13.4	22.0	28.8	35.7	40.8	63.9	79.1	84.3	87.2
653870	2	1.6	2.2	2.5	2.6	2.7	2.7	2.7	2.7	2.7	2.7
	10	5.4	9.7	15.7	20.2	24.9	28.2	44.0	56.2	61.8	65.8
654720	2	2.2	3.1	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	10	5.7	10.3	16.8	21.5	25.9	28.7	39.4	46.2	49.2	50.9
655010	2	0.1	0.2	0.4	0.6	0.7	0.8	0.9	0.9	0.9	0.9
	10	0.1	0.3	0.7	1.2	2.0	2.6	5.2	9.1	18.3	32.9
655020	2	0.1	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6
	10	0.4	0.8	1.6	2.4	3.3	3.8	6.2	15.1	37.4	63.5
655030	2	0.6	1.0	1.4	1.6	1.7	1.7	1.7	1.7	1.9	2.0
	10	0.9	1.8	3.6	5.1	6.9	8.0	12.6	26.1	52.4	78.1
655050	2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	10	0.9	1.9	3.5	5.0	6.6	7.7	13.6	29.9	57.1	81.7
655070	2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.6	1.3	2.6	3.8	5.1	5.8	9.7	24.1	51.8	78.9
655100	2	1.0	1.5	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
	10	2.6	4.7	8.1	11.2	14.7	17.0	29.8	53.9	79.1	94.4
655160	2	0.5	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10	1.4	2.7	4.6	6.6	9.1	10.8	20.1	40.4	67.0	87.7
655180	2	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	2.7	4.7	7.2	9.2	11.2	12.5	19.5	38.5	66.8	88.9
655220	2	0.7	1.2	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1
	10	1.8	3.5	6.9	10.5	15.0	18.5	39.4	68.5	89.8	98.2
655280	2	2.3	3.4	4.2	4.7	5.2	5.6	7.4	8.7	9.6	10.0
	10	7.6	13.5	22.3	29.4	37.1	42.8	71.3	93.1	99.1	100.0
655360	2	1.5	2.2	2.7	2.9	3.0	3.1	3.4	3.5	3.5	3.6
	10	3.9	7.5	13.4	18.5	24.2	28.4	52.5	79.9	94.8	99.3

1st-Order Markov Model

H-23

November DRWH Reliability (%)
per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	1.7	2.6	3.1	3.3	3.4	3.4	3.4	3.4	3.4	3.4
	10	6.6	11.5	18.3	23.9	30.1	34.9	60.0	83.7	94.4	97.8
655480	2	2.2	3.2	4.0	4.5	4.9	5.1	5.4	5.4	5.5	5.5
	10	8.7	15.4	24.4	31.1	37.9	43.2	70.4	91.7	98.7	99.9
655550	2	1.6	2.5	3.2	3.5	3.7	3.8	3.8	3.8	3.8	3.8
	10	5.5	9.6	15.5	20.2	25.6	29.4	49.6	73.5	89.2	95.9
655570	2	6.4	9.7	11.1	11.4	11.5	11.5	11.6	11.6	11.6	11.6
	10	20.8	36.1	53.1	63.7	71.8	77.5	94.0	98.6	99.3	99.7
655600	2	2.4	3.2	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	10	8.9	15.4	23.7	29.8	35.8	40.2	61.7	82.1	93.0	97.1
655620	2	3.5	5.2	6.0	6.2	6.2	6.2	6.2	6.4	6.7	7.0
	10	8.9	16.0	25.9	33.6	41.3	46.5	69.7	85.3	91.5	94.5
655630	2	2.9	4.2	4.9	5.2	5.3	5.3	5.3	5.3	5.3	5.3
	10	11.4	19.4	29.5	36.6	43.5	48.3	69.6	83.9	90.4	93.5
655780	2	9.2	15.1	18.7	20.1	20.7	21.0	21.3	21.4	21.4	21.4
	10	26.1	44.1	62.2	72.7	79.9	84.2	94.2	97.0	97.8	98.3
655850	2	9.2	15.2	18.2	19.1	19.6	19.8	20.0	20.0	20.0	20.0
	10	25.0	43.9	62.8	74.4	82.4	87.6	98.0	99.3	99.6	99.8
655920	2	10.1	17.3	21.2	22.8	23.8	24.5	26.0	26.2	26.2	26.2
	10	26.6	46.3	64.6	75.6	83.1	87.9	97.9	99.7	100.0	100.0
655940	2	8.5	14.7	18.5	19.8	20.4	20.6	20.8	20.8	20.8	20.8
	10	24.1	41.0	57.5	67.2	74.0	78.2	88.2	91.0	92.3	93.8
655990	2	7.6	12.3	14.3	14.8	14.9	14.9	14.9	14.9	14.9	14.9
	10	20.1	34.8	50.7	60.8	68.3	73.1	84.3	86.9	88.1	89.9

1st-Order Markov Model

H-24

December DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5
	10	0.1	0.3	0.5	0.7	0.9	1.1	1.5	1.6	2.6	8.1
653190	2	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5
	10	0.2	0.4	0.7	0.9	1.2	1.5	2.5	5.5	19.3	44.4
653300	2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.6	0.9	1.3	1.6	2.0	2.3	3.5	6.5	20.3	45.2
653350	2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	10	0.7	1.2	2.0	2.5	3.1	3.4	4.4	8.9	26.9	53.9
653380	2	1.7	2.7	3.8	4.2	4.4	4.4	4.4	4.4	4.4	4.4
	10	2.6	4.9	8.7	11.9	15.4	17.4	23.6	31.9	49.5	70.4
653440	2	1.3	2.3	3.6	4.2	4.7	4.9	5.1	5.1	5.1	5.1
	10	2.1	3.9	7.1	9.9	13.3	15.5	24.7	39.0	58.0	74.9
653520	2	0.2	0.4	0.7	0.8	1.0	1.1	1.5	1.8	2.0	2.0
	10	0.3	0.7	1.3	1.9	2.6	3.1	5.1	8.0	16.2	33.1
653550	2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.4	1.0	2.0	3.0	4.3	5.3	9.5	20.3	43.6	70.1
653570	2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.5	1.0	1.9	2.6	3.4	3.9	5.4	9.5	25.4	50.9
653610	2	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7
	10	0.9	1.6	2.2	2.7	3.3	3.8	6.9	13.2	31.0	56.3
653760	2	0.5	0.8	1.1	1.3	1.5	1.5	1.6	1.6	1.6	1.6
	10	1.5	2.7	4.2	5.3	6.5	7.1	9.0	13.5	30.8	56.8
653800	2	1.5	2.5	3.5	4.0	4.2	4.3	4.3	4.3	4.3	4.3
	10	2.2	4.1	7.3	10.1	13.3	15.1	20.9	29.4	42.7	55.2
653870	2	0.6	1.0	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	10	2.0	3.3	5.3	6.8	8.3	9.1	10.8	13.8	19.9	26.8
654720	2	1.3	1.9	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4
	10	3.3	6.0	9.7	12.3	14.8	16.0	19.2	21.6	24.8	27.6
655010	2	0.5	0.9	1.4	1.8	2.1	2.2	2.4	2.4	2.4	2.4
	10	0.6	1.2	2.1	2.9	3.8	4.4	5.9	6.7	7.4	9.0
655020	2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.1	0.1	0.1	0.2	0.2	0.3	0.6	1.0	1.6	4.2
655030	2	0.2	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	0.5	0.8	1.3	1.9	2.6	3.0	4.7	5.8	7.7	13.6
655050	2	0.5	0.9	1.3	1.5	1.7	1.7	1.8	1.8	1.8	1.8
	10	0.6	1.2	2.2	3.1	4.2	4.7	5.9	6.3	8.2	15.8
655070	2	0.4	0.7	1.1	1.3	1.5	1.6	1.7	1.8	1.8	1.8
	10	0.5	1.0	1.6	2.2	2.9	3.3	4.3	4.6	5.5	10.7
655100	2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.5	0.8	1.3	1.7	2.2	2.5	3.8	5.6	12.8	29.9
655160	2	0.1	0.2	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6
	10	0.2	0.3	0.7	1.0	1.4	1.6	2.4	3.2	7.1	18.8
655180	2	0.5	0.7	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10	0.8	1.4	2.4	3.2	4.1	4.5	5.3	5.8	9.0	20.0
655220	2	0.3	0.5	0.7	0.9	1.0	1.1	1.1	1.1	1.1	1.1
	10	0.3	0.7	1.3	1.8	2.6	3.1	5.0	7.7	19.3	42.3
655280	2	0.5	1.0	1.6	2.1	2.7	3.0	3.9	4.2	4.5	4.8
	10	1.3	2.4	4.1	5.6	7.4	8.5	13.7	26.4	51.2	76.6
655360	2	0.6	0.9	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5
	10	0.8	1.5	2.8	4.0	5.5	6.3	9.0	14.5	32.0	57.7

1st-Order Markov Model

H-25

December DRWH Reliability (%)**per capita roof area and storage**

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	10	2.2	3.9	6.4	8.1	9.7	10.6	13.5	21.1	40.7	64.6
655480	2	1.9	3.1	3.9	4.3	4.4	4.5	4.7	4.8	4.8	4.8
	10	3.3	6.0	10.3	13.7	17.1	18.8	24.8	37.1	59.8	81.8
655550	2	1.0	1.6	2.3	2.6	2.8	2.8	2.9	2.9	2.9	2.9
	10	2.7	4.7	7.5	9.5	11.6	12.8	16.7	22.2	36.5	57.5
655570	2	3.5	5.5	6.6	6.9	7.0	7.0	7.0	7.0	7.0	7.0
	10	8.1	14.5	23.5	30.6	37.5	42.0	62.2	81.4	92.5	97.0
655600	2	2.4	3.7	4.5	4.7	4.8	4.8	4.8	4.8	4.8	4.8
	10	4.3	8.0	13.6	17.6	21.6	23.6	29.1	37.6	54.5	72.9
655620	2	1.9	2.8	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.5
	10	3.6	6.8	11.7	15.4	19.3	21.3	28.6	40.0	56.4	71.8
655630	2	1.4	2.0	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5
	10	4.1	7.1	11.2	14.2	17.1	18.7	25.2	36.7	53.1	68.7
655780	2	6.0	10.3	13.6	14.8	15.2	15.4	15.5	15.5	15.5	15.5
	10	12.0	21.3	34.0	43.9	53.4	59.6	81.6	92.5	96.1	97.4
655850	2	4.6	6.6	7.8	8.4	9.0	9.3	10.4	10.5	10.5	10.5
	10	14.1	24.5	37.5	46.4	54.4	59.9	82.0	94.6	98.5	99.4
655920	2	8.2	14.7	19.8	21.9	22.8	23.2	23.5	23.5	23.5	23.5
	10	16.8	29.7	45.6	56.9	66.2	72.5	90.9	97.9	99.7	100.0
655940	2	5.5	9.3	12.0	12.9	13.3	13.5	13.6	13.6	13.6	13.6
	10	12.1	21.5	34.2	43.8	52.7	58.6	79.1	88.4	91.6	93.4
655990	2	4.4	7.3	9.3	10.0	10.2	10.2	10.3	10.3	10.3	10.3
	10	8.7	15.7	25.8	33.9	41.9	47.2	66.4	76.8	81.0	83.5

**Appendix I: Domestic Rainwater Harvesting Reliabilities
Using the LARS-WG Spell-length Model**

LARS-WG Model

I-2

January DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	5.5	8.2	8.7	9.0	9.2	9.2	9.2	9.2	9.2	9.2
	10	6.8	14.1	26.3	36.2	46.4	52.6	77.2	90.9	91.2	91.4
653190	2	3.3	4.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	10	3.6	7.7	15.3	22.1	27.3	29.4	33.8	39.1	48.9	62.9
653300	2	1.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	10	4.8	9.7	14.4	17.5	20.4	21.7	23.4	26.2	33.4	45.9
653350	2	3.8	4.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	10	5.9	10.9	19.6	25.9	29.6	30.8	31.6	33.0	37.9	49.3
653380	2	4.3	7.9	12.2	14.5	16.9	18.0	19.0	19.1	19.1	19.1
	10	6.3	12.3	22.5	31.0	40.9	47.4	70.8	82.7	88.0	92.5
653440	2	2.5	4.3	6.6	8.1	9.3	10.0	12.6	13.4	13.4	13.4
	10	4.1	7.7	14.0	18.9	24.2	27.6	42.2	55.2	66.7	77.5
653520	2	8.7	15.8	23.6	24.9	25.3	25.5	25.9	26.1	26.1	26.1
	10	10.6	20.1	36.2	48.5	62.6	69.8	89.7	97.4	98.2	98.6
653550	2	6.6	10.9	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
	10	8.7	17.2	30.2	40.8	52.6	57.9	68.0	72.1	78.3	85.6
653570	2	6.4	12.2	17.0	17.7	17.9	18.0	18.0	18.0	18.0	18.0
	10	7.9	16.1	28.1	37.5	47.9	54.3	69.3	74.0	79.6	86.3
653610	2	3.6	5.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
	10	6.9	14.4	24.4	31.0	36.3	39.1	47.6	58.5	70.9	82.3
653760	2	2.7	4.5	6.0	6.4	6.5	6.6	6.7	6.7	6.7	6.7
	10	8.2	15.1	23.9	29.7	35.3	39.3	54.9	64.0	69.5	76.2
653800	2	6.0	10.7	16.9	19.7	20.7	21.0	21.3	21.3	21.3	21.3
	10	9.3	18.5	31.6	41.2	52.1	59.1	82.0	92.8	96.2	97.8
653870	2	2.0	3.3	4.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	10	5.5	10.7	17.1	21.3	25.6	28.2	37.8	43.7	47.8	53.1
654720	2	2.1	3.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	10	5.3	10.3	17.4	21.9	26.7	30.3	45.6	54.0	59.2	63.4
655010	2	7.8	12.8	17.0	19.2	21.1	22.5	25.1	25.3	25.3	25.3
	10	8.2	16.8	31.2	43.3	56.8	64.0	87.2	97.5	98.0	98.5
655020	2	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	10	3.4	6.6	11.2	13.9	15.0	15.0	15.0	15.3	18.4	25.2
655050	2	0.4	1.1	2.5	3.2	3.8	4.2	4.5	4.5	4.5	4.5
	10	5.1	10.3	15.6	19.5	25.1	29.6	54.1	75.8	82.2	84.4
655070	2	0.2	0.8	2.1	3.0	3.8	4.2	4.7	4.7	4.7	4.7
	10	0.2	0.9	3.6	7.4	13.6	18.5	43.4	71.3	82.8	85.6
655100	2	2.9	5.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
	10	5.1	10.7	18.7	25.3	31.8	34.9	39.3	40.5	44.0	51.7
655160	2	2.0	2.1	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.6
	10	5.2	9.9	16.6	22.2	27.6	31.8	55.0	72.9	79.9	84.3
655180	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.4	1.4	5.1	9.6	16.4	21.5	44.1	64.8	74.1	80.6
655220	2	3.2	6.3	9.7	12.2	13.0	13.2	13.2	13.2	13.2	13.2
	10	5.7	11.2	20.1	27.4	35.9	41.7	62.0	74.0	79.0	83.6
655280	2	5.0	8.5	12.5	15.2	18.2	20.5	30.0	33.0	33.5	33.5
	10	8.1	15.4	26.3	35.3	45.1	51.4	75.5	88.4	92.9	96.1
655360	2	3.7	5.9	6.5	6.6	6.6	6.6	6.6	6.6	6.6	6.6
	10	6.9	13.4	22.6	29.8	37.4	42.7	62.7	73.1	78.0	83.4
655450	2	4.9	8.7	14.0	16.1	16.9	17.0	17.1	17.1	17.1	17.1
	10	7.4	14.5	25.7	34.2	43.3	49.5	69.5	77.2	81.8	87.9

LARS-WG Markov Model

I-3

January DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	5.2	7.6	9.6	9.8	9.8	9.8	9.9	9.9	9.9	9.9
	10	7.8	15.4	26.6	35.2	43.1	47.8	64.5	73.8	80.5	87.3
655550	2	5.2	8.0	11.4	13.8	14.9	15.1	15.2	15.2	15.2	15.2
	10	9.6	18.3	30.5	38.5	46.1	50.7	66.3	73.8	78.4	83.9
655570	2	4.3	6.8	8.9	9.4	9.5	9.5	9.5	9.5	9.5	9.5
	10	10.9	19.6	31.0	39.0	46.7	51.7	70.3	84.9	93.6	97.8
655600	2	2.2	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	10	5.6	11.0	18.2	23.3	28.5	31.9	45.4	55.2	65.0	76.3
655620	2	3.4	5.5	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4
	10	6.9	13.6	22.8	29.5	36.3	40.6	54.9	65.3	74.8	83.9
655630	2	4.0	7.0	10.0	11.2	11.4	11.5	11.5	11.5	11.5	11.5
	10	7.2	13.7	23.0	30.1	37.7	42.5	57.8	65.9	73.8	82.4
655780	2	2.2	3.8	5.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	10	5.1	9.7	16.7	22.5	29.2	34.0	56.8	78.8	90.9	95.9
655850	2	4.1	6.4	8.2	8.8	9.2	9.4	9.6	9.6	9.6	9.6
	10	9.0	17.1	28.1	35.8	42.7	47.6	68.1	85.4	94.9	98.5
655920	2	5.3	8.9	11.7	13.1	13.9	14.3	15.0	15.0	15.0	15.0
	10	12.2	23.1	36.4	45.7	54.2	60.3	82.8	94.4	98.5	99.7
655940	2	3.1	5.5	6.5	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	10	8.5	16.2	25.4	32.0	38.7	43.6	64.4	80.7	89.5	93.7
655990	2	3.4	4.9	6.2	6.8	7.0	7.1	7.2	7.2	7.2	7.2
	10	8.4	15.5	24.8	31.6	38.1	42.7	63.8	80.7	88.8	92.4

LARS-WG Model

I-4

February DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		2.6	4.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
	10		3.6	7.2	13.2	17.7	22.1	23.9	28.2	41.6	61.9	75.3
653190	2		1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	10		3.6	6.5	10.1	12.3	14.4	15.7	19.0	20.3	22.6	28.6
653300	2		1.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	10		3.3	6.3	10.2	12.7	14.8	15.7	17.5	17.9	18.6	21.0
653350	2		3.5	6.2	8.8	10.1	10.8	10.9	11.0	11.0	11.0	11.0
	10		6.8	11.8	18.2	22.5	27.0	29.6	36.4	37.4	37.9	39.5
653380	2		2.8	4.3	5.4	5.8	6.2	6.4	6.7	6.8	6.8	6.8
	10		6.1	11.3	17.8	21.9	26.0	28.5	37.7	50.0	64.5	76.8
653440	2		2.5	4.3	5.8	6.5	6.6	6.7	6.7	6.7	6.8	6.8
	10		4.5	8.3	13.1	16.6	20.3	22.5	28.8	35.1	43.7	54.2
653520	2		4.0	5.9	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.6
	10		7.1	14.5	23.5	29.7	35.0	38.4	53.2	70.9	86.2	94.4
653550	2		2.8	4.7	7.1	8.1	8.3	8.4	8.4	8.4	8.4	8.4
	10		5.8	11.1	17.3	21.6	25.8	28.7	41.2	49.3	55.4	63.0
653570	2		4.6	7.6	8.7	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	10		6.3	13.0	21.4	28.0	33.9	37.8	52.8	63.5	69.5	75.1
653610	2		3.7	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10		7.3	14.3	23.2	29.0	33.2	35.4	40.9	44.1	50.2	60.1
653760	2		2.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	10		7.6	13.9	20.2	23.8	26.4	27.9	32.1	38.4	46.7	55.2
653800	2		6.6	11.3	15.2	17.6	19.8	21.2	23.3	23.3	23.3	23.3
	10		11.3	20.7	31.0	37.7	42.9	46.0	58.3	72.8	85.7	92.9
653870	2		1.5	2.5	3.5	4.2	4.7	4.8	4.8	4.8	4.8	4.8
	10		4.2	7.5	11.4	13.9	16.2	17.6	22.3	25.2	27.9	31.0
654720	2		2.8	5.8	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	10		7.2	13.7	20.0	23.8	27.3	29.7	37.0	40.2	44.6	48.7
655010	2		5.6	10.2	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
	10		6.4	12.6	21.3	27.6	34.7	37.9	46.9	63.0	80.8	91.5
655020	2		5.5	11.0	16.3	17.1	17.3	17.3	17.3	17.3	17.3	17.3
	10		6.5	12.7	22.3	29.6	38.5	42.9	49.9	50.5	50.5	50.5
655050	2		2.6	5.6	8.5	8.9	8.9	9.0	9.0	9.0	9.0	9.0
	10		4.2	8.4	13.5	17.4	21.7	24.1	28.3	31.4	46.2	61.4
655070	2		4.7	8.0	10.3	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	10		5.7	10.8	18.0	23.4	28.3	30.3	33.1	33.2	45.4	61.8
655100	2		0.8	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	10		2.9	5.3	7.9	9.5	11.4	12.8	18.3	20.1	20.9	23.1
655160	2		0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	10		4.5	5.8	6.9	7.4	7.6	7.6	7.9	12.7	27.4	45.7
655180	2		0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10		2.5	5.0	7.5	8.1	8.2	8.2	8.2	8.2	18.8	36.9
655220	2		2.5	4.0	4.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	10		4.3	8.2	13.2	16.9	20.6	22.9	31.7	42.5	54.2	64.4
655280	2		3.0	4.5	5.6	5.8	5.8	5.8	5.9	6.3	7.2	7.6
	10		5.6	11.4	18.6	23.3	27.3	29.6	37.6	52.3	70.8	84.8
655360	2		3.6	6.6	8.9	9.2	9.2	9.2	9.2	9.2	9.2	9.2
	10		5.8	11.3	18.3	22.9	27.4	29.9	36.1	42.3	51.6	61.8
655450	2		4.4	7.4	10.0	11.6	12.6	13.0	13.2	13.2	13.2	13.2
	10		8.9	16.1	24.2	29.8	34.7	37.4	48.1	59.6	69.1	76.7

LARS-WG Markov Model

I-5

February DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	3.8	5.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
	10	8.7	16.1	24.2	29.2	33.6	36.0	44.3	52.6	61.6	71.3
655550	2	4.2	6.8	9.1	10.6	11.2	11.3	11.4	11.4	11.4	11.4
	10	8.9	16.7	25.7	31.8	37.5	40.8	51.9	62.1	70.4	76.3
655570	2	6.7	10.3	12.9	14.4	15.5	16.1	16.5	16.5	16.5	16.5
	10	13.8	25.0	37.2	44.6	50.6	53.8	62.6	70.8	80.9	89.8
655600	2	5.5	8.5	10.3	10.6	10.6	10.6	10.6	10.6	10.6	10.6
	10	9.7	18.1	28.8	35.1	40.1	42.4	45.2	47.4	52.8	60.9
655620	2	4.4	6.1	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
	10	11.4	21.5	32.0	37.7	42.3	44.5	49.6	54.1	61.1	70.0
655630	2	3.4	5.3	6.4	6.5	6.6	6.6	6.6	6.6	6.6	6.6
	10	8.0	14.9	22.6	27.5	31.9	34.7	44.1	53.0	60.4	67.7
655780	2	2.6	4.0	5.1	5.7	6.1	6.2	6.3	6.3	6.3	6.3
	10	7.2	12.7	18.7	22.1	24.9	26.5	31.2	38.2	54.5	73.2
655850	2	5.7	8.8	11.3	12.4	12.6	12.7	12.7	12.7	12.7	12.7
	10	11.2	21.3	32.5	39.8	45.3	48.4	56.9	66.1	78.9	89.8
655920	2	5.0	7.6	9.6	10.3	10.4	10.5	10.5	10.5	10.5	10.5
	10	11.3	21.3	33.4	40.4	46.1	49.6	62.7	76.3	88.9	96.0
655940	2	2.0	2.9	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10	5.4	10.3	16.4	19.7	22.3	24.2	32.0	42.2	58.2	73.7
655990	2	4.2	6.2	7.5	8.2	8.3	8.4	8.4	8.4	8.4	8.4
	10	10.4	19.2	29.0	34.8	39.3	41.6	48.1	56.8	69.5	80.1

LARS-WG Model

I-6

March DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	2.1	3.3	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10	5.8	10.5	16.0	19.5	22.7	24.8	31.9	34.5	37.9	44.0
653190	2	2.8	4.3	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	10	6.9	12.4	18.4	22.0	24.7	26.1	28.5	29.0	29.4	30.2
653300	2	2.6	4.1	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	10	5.9	10.5	16.2	19.8	22.7	24.2	26.8	27.0	27.1	27.3
653350	2	5.9	9.9	12.6	13.5	13.8	13.9	14.1	14.1	14.1	14.1
	10	10.7	19.7	31.1	38.4	44.4	48.0	57.7	61.6	62.5	62.8
653380	2	5.4	8.8	10.5	10.9	11.0	11.0	11.0	11.0	11.0	11.0
	10	11.8	22.1	33.5	40.2	45.3	48.1	54.2	57.7	61.7	67.7
653440	2	5.8	9.6	12.5	13.8	14.4	14.5	14.6	14.6	14.6	14.6
	10	10.2	18.7	29.4	36.7	42.6	45.9	53.6	56.5	58.3	60.9
653520	2	8.5	14.1	20.0	22.6	24.3	25.3	26.1	26.1	26.1	26.1
	10	13.1	24.0	38.8	47.9	54.7	58.2	65.7	70.2	75.7	82.4
653550	2	4.0	5.9	7.3	8.0	8.1	8.1	8.1	8.1	8.1	8.1
	10	7.7	14.3	23.2	29.2	33.9	36.5	44.8	50.3	53.6	57.7
653570	2	4.8	8.1	11.3	13.1	14.3	14.8	15.2	15.2	15.2	15.2
	10	12.1	21.8	31.9	37.8	42.8	45.9	55.8	61.7	66.6	71.6
653610	2	4.8	6.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
	10	9.8	18.7	29.8	36.6	41.2	43.2	46.4	47.8	49.9	53.6
653760	2	5.3	8.3	10.6	11.5	11.7	11.7	11.7	11.7	11.7	11.7
	10	11.9	22.1	33.5	40.2	44.7	47.3	52.6	53.9	55.5	58.5
653800	2	10.4	18.5	25.5	28.9	31.3	32.9	37.5	38.3	38.4	38.4
	10	18.1	33.4	52.0	63.6	71.7	76.3	86.0	88.9	91.5	94.5
653870	2	4.9	8.1	11.0	12.3	13.1	13.5	13.8	13.8	13.8	13.8
	10	10.6	19.1	29.5	36.0	41.2	43.9	49.7	51.8	52.8	53.5
654720	2	5.5	10.2	13.0	13.2	13.3	13.3	13.3	13.3	13.3	13.3
	10	10.4	20.1	31.1	38.2	44.7	48.8	60.3	62.9	63.9	64.9
655010	2	1.6	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	10	4.2	7.8	12.7	16.1	19.7	22.6	34.5	43.5	51.2	60.2
655020	2	2.6	4.1	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	10	5.4	9.8	15.6	20.1	24.7	27.7	41.7	51.0	54.1	54.5
655050	2	1.9	3.6	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	10	6.4	11.1	16.4	19.5	22.8	25.4	36.8	42.2	44.4	47.2
655070	2	3.2	6.1	8.8	10.4	11.7	12.4	13.4	13.4	13.4	13.4
	10	6.1	10.7	16.5	20.9	25.5	28.5	39.0	43.8	45.4	47.3
655100	2	2.0	2.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	10	4.8	8.7	13.0	15.8	17.9	18.8	21.2	22.0	22.4	22.9
655160	2	1.5	2.8	4.4	5.1	5.3	5.3	5.3	5.3	5.3	5.3
	10	6.3	10.9	15.2	17.5	19.6	20.9	24.1	24.3	24.5	26.0
655180	2	2.6	4.8	6.3	6.8	6.8	6.9	6.9	6.9	6.9	6.9
	10	7.9	14.6	21.6	25.3	28.4	30.0	32.7	32.8	32.8	33.0
655220	2	4.5	7.0	8.3	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	10	9.1	16.5	26.1	31.9	36.7	39.2	44.4	46.9	50.2	55.0
655280	2	3.9	6.2	8.3	9.3	10.1	10.6	11.1	11.1	11.1	11.1
	10	8.1	15.3	24.3	29.3	33.1	35.4	42.3	46.2	51.5	61.1
655360	2	4.4	7.2	10.1	11.2	11.4	11.5	11.5	11.5	11.5	11.5
	10	9.5	17.2	26.3	32.0	37.1	40.2	50.4	54.6	56.6	59.3
655450	2	6.5	12.0	16.6	18.7	19.7	20.0	20.5	20.5	20.5	20.5
	10	11.9	21.9	33.8	41.8	48.6	52.7	63.8	68.7	72.3	76.3

LARS-WG Markov Model

I-7

March DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	9.3	15.3	20.2	22.5	23.8	24.5	25.1	25.1	25.1	25.1
	10	18.3	33.3	48.9	57.0	62.4	65.5	71.5	73.3	75.5	78.6
655550	2	7.8	12.4	16.7	19.5	21.5	22.5	23.4	23.4	23.4	23.4
	10	15.4	28.1	42.7	50.9	56.9	60.1	68.9	73.4	77.3	81.0
655570	2	10.8	18.3	23.4	25.6	27.0	28.0	31.2	31.4	31.4	31.4
	10	22.1	39.2	56.1	65.4	72.4	76.2	84.8	87.6	89.9	92.4
655600	2	7.9	12.4	15.3	16.4	17.1	17.5	17.8	17.8	17.8	17.8
	10	15.3	28.1	43.1	52.6	59.7	64.1	74.7	76.7	77.4	79.0
655620	2	8.7	14.4	17.8	18.5	18.6	18.6	18.6	18.6	18.6	18.6
	10	16.9	31.5	46.9	55.8	62.5	66.3	73.3	74.6	76.1	78.8
655630	2	6.7	9.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	10	16.1	30.1	44.2	51.6	56.7	59.4	64.9	67.5	70.0	73.6
655780	2	7.3	12.5	16.5	17.8	18.4	18.7	19.3	19.3	19.3	19.3
	10	15.3	27.6	42.0	50.2	56.0	59.2	65.6	67.4	69.3	73.3
655850	2	8.2	13.0	16.0	17.5	18.7	19.4	20.2	20.2	20.2	20.2
	10	16.4	30.2	46.4	56.1	63.2	67.4	77.1	80.8	84.0	88.4
655920	2	6.6	11.1	13.8	15.2	15.9	16.3	16.7	16.7	16.7	16.7
	10	14.5	27.1	41.2	49.8	56.6	60.5	70.5	76.7	83.3	90.1
655940	2	4.8	7.2	9.5	10.1	10.2	10.2	10.2	10.2	10.2	10.2
	10	8.9	16.6	26.8	33.6	38.1	40.6	46.7	49.2	52.6	59.2
655990	2	5.6	9.0	11.8	12.4	12.6	12.6	12.6	12.6	12.6	12.6
	10	11.5	21.3	33.5	40.9	46.9	50.6	59.9	63.7	67.5	73.2

LARS-WG Model

I-8

April DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	3.6	6.0	7.8	8.2	8.3	8.3	8.3	8.3	8.3	8.3
	10	7.8	14.6	22.8	27.5	31.5	33.6	38.7	41.0	42.6	44.8
653190	2	6.8	11.0	13.8	14.7	15.0	15.1	15.2	15.2	15.2	15.2
	10	14.7	26.6	39.1	46.5	52.1	55.1	61.4	62.4	62.5	62.6
653300	2	5.6	8.8	11.8	12.8	13.0	13.1	13.1	13.1	13.1	13.1
	10	11.5	20.9	32.1	38.9	43.6	46.3	52.2	53.5	53.6	53.6
653350	2	9.6	16.0	19.7	20.5	20.6	20.7	20.7	20.7	20.7	20.7
	10	19.4	34.9	51.9	61.7	68.2	72.0	80.3	83.1	84.2	84.6
653380	2	10.2	16.7	20.5	21.5	21.8	21.9	21.9	21.9	21.9	21.9
	10	20.1	36.5	55.0	65.8	73.1	77.1	84.6	86.1	87.1	88.2
653440	2	11.7	20.1	27.0	30.0	31.8	32.8	34.1	34.1	34.1	34.1
	10	19.0	34.5	52.8	63.6	71.4	75.6	84.8	87.0	87.7	88.1
653520	2	8.2	13.5	17.3	19.4	20.9	21.9	24.4	24.6	24.6	24.6
	10	14.6	28.9	45.5	56.2	64.7	70.1	84.4	88.8	90.2	91.2
653550	2	8.5	12.7	14.3	14.5	14.5	14.5	14.5	14.5	14.5	14.5
	10	16.5	30.1	46.0	55.2	61.4	64.8	71.0	73.4	75.2	76.5
653570	2	7.6	12.3	15.5	16.7	17.5	17.9	18.5	18.5	18.5	18.5
	10	19.0	34.4	50.9	59.8	66.4	70.4	80.1	83.9	85.6	86.9
653610	2	7.3	12.0	15.1	16.0	16.2	16.3	16.3	16.3	16.3	16.3
	10	18.3	33.3	48.9	57.1	62.9	66.4	72.8	73.5	73.9	75.0
653760	2	10.3	17.9	23.7	26.1	26.7	26.8	26.9	26.9	26.9	26.9
	10	19.5	35.9	53.9	64.0	70.8	74.9	83.2	84.8	85.3	85.7
653800	2	11.2	19.4	25.1	26.3	26.5	26.6	26.9	27.4	27.6	27.7
	10	19.6	37.1	57.3	69.0	77.5	82.5	93.2	96.5	97.6	98.2
653870	2	8.4	14.2	19.5	22.3	23.7	24.4	25.6	25.7	25.7	25.7
	10	15.8	28.7	44.1	54.1	61.8	66.2	77.3	80.5	81.6	82.0
654720	2	7.6	14.5	21.4	24.8	26.5	27.1	27.3	27.3	27.3	27.3
	10	15.0	27.6	41.6	50.2	58.0	62.8	76.6	81.1	82.2	82.7
655010	2	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	10	3.6	6.4	9.5	11.0	12.0	12.4	14.1	17.3	23.7	32.9
655020	2	2.0	3.1	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	10	5.0	9.3	14.8	18.3	21.2	23.0	28.4	33.9	40.0	44.1
655050	2	3.1	4.4	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	10	6.7	12.8	20.0	24.7	28.6	30.8	36.5	39.2	42.0	44.7
655070	2	3.5	5.5	7.1	7.9	8.4	8.8	10.0	10.3	10.3	10.3
	10	7.8	14.1	21.7	26.5	30.8	33.6	43.3	49.8	53.6	55.8
655100	2	4.0	6.1	7.0	7.1	7.2	7.2	7.2	7.2	7.2	7.2
	10	9.1	16.2	24.8	30.1	34.3	36.5	40.0	40.5	40.7	40.8
655160	2	3.4	5.5	7.3	8.5	9.3	9.5	9.6	9.6	9.6	9.6
	10	8.8	15.8	23.9	28.8	32.8	35.0	41.3	44.6	45.2	45.3
655180	2	3.6	6.2	8.4	9.3	9.4	9.5	9.5	9.5	9.5	9.5
	10	9.3	17.3	26.1	31.2	35.9	38.8	47.8	51.1	51.6	51.6
655220	2	6.0	10.1	12.3	12.7	12.7	12.7	12.7	12.7	12.7	12.7
	10	12.2	22.9	35.8	44.0	50.4	54.2	63.4	65.9	67.0	68.6
655280	2	7.7	12.1	15.5	17.0	18.0	18.5	19.5	19.6	19.6	19.6
	10	15.1	27.8	42.5	51.7	58.8	63.1	72.5	74.9	76.4	78.0
655360	2	7.0	11.5	14.7	15.8	16.3	16.3	16.4	16.4	16.4	16.4
	10	15.7	28.3	42.5	50.9	56.7	60.1	68.6	72.4	74.2	75.4
655450	2	10.8	17.7	23.7	27.0	29.0	30.2	31.7	31.7	31.7	31.7
	10	19.4	35.9	54.4	64.5	71.6	75.6	85.5	89.0	90.5	91.6

LARS-WG Markov Model
April DRWH Reliability (%)

I-9

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655480	2	12.0	21.4	29.1	33.1	35.4	36.8	39.3	39.4	39.4	39.4
	10	22.3	41.2	62.4	74.4	82.4	86.8	95.2	96.3	96.5	96.8
655550	2	11.9	18.8	23.5	26.1	27.8	28.9	31.1	31.3	31.3	31.3
	10	21.9	39.5	60.3	72.0	80.2	84.3	92.3	94.2	95.0	95.7
655570	2	13.5	22.9	30.5	34.6	37.4	39.4	44.8	46.4	46.5	46.5
	10	26.3	48.0	68.7	79.1	86.1	90.0	96.9	98.2	98.6	98.9
655600	2	11.5	18.7	23.5	24.9	25.6	26.1	27.2	27.2	27.2	27.2
	10	20.8	38.1	58.0	68.5	76.1	80.2	89.1	91.4	92.1	92.6
655620	2	11.3	18.1	23.5	26.0	27.3	27.9	28.3	28.3	28.3	28.3
	10	20.0	36.8	56.7	67.5	75.2	79.4	88.9	91.1	91.7	92.3
655630	2	9.9	15.0	17.5	18.0	18.1	18.1	18.1	18.1	18.1	18.1
	10	20.7	39.1	59.3	69.4	76.7	80.8	88.4	89.6	90.2	91.1
655780	2	11.5	19.6	25.2	27.8	28.9	29.6	30.4	30.4	30.4	30.4
	10	20.9	38.2	57.1	68.4	75.8	80.2	89.3	91.3	91.7	92.2
655850	2	11.3	18.4	23.3	25.5	26.7	27.5	29.1	29.1	29.1	29.1
	10	21.9	40.2	60.0	71.4	79.1	83.3	91.9	93.7	94.8	95.8
655920	2	10.7	19.1	25.2	27.9	29.5	30.4	31.4	31.4	31.4	31.4
	10	21.8	39.4	57.3	67.5	74.7	78.7	87.4	90.5	92.5	94.6
655940	2	8.8	15.0	19.5	21.1	21.8	22.1	22.3	22.3	22.3	22.3
	10	17.5	31.7	48.8	58.3	65.2	69.2	77.5	79.5	80.1	81.1
655990	2	10.7	18.1	24.1	26.7	27.8	28.1	28.3	28.3	28.3	28.3
	10	19.4	35.3	53.1	63.2	70.7	74.7	83.2	85.6	86.8	88.1

LARS-WG Model

I-10

May DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	9.2	15.0	19.3	20.1	20.3	20.3	20.3	20.3	20.3	20.3
	10	16.8	30.9	47.2	56.2	62.2	65.5	72.3	73.9	74.5	75.0
653190	2	9.3	15.1	17.9	18.6	18.8	18.9	19.0	19.0	19.0	19.0
	10	20.7	37.3	54.6	64.7	72.2	76.4	85.5	87.4	87.7	87.7
653300	2	10.7	16.7	20.1	21.5	22.1	22.5	22.7	22.7	22.7	22.7
	10	22.9	41.9	61.4	71.0	76.6	79.6	85.6	86.8	87.0	87.1
653350	2	10.5	16.7	20.1	21.1	21.4	21.5	21.5	21.5	21.5	21.5
	10	21.9	40.2	60.8	72.4	80.2	84.8	94.3	96.0	96.5	96.6
653380	2	12.4	19.9	23.4	24.7	25.1	25.2	25.2	25.2	25.2	25.2
	10	23.0	41.8	62.8	74.6	82.3	86.8	95.7	97.0	97.3	97.5
653440	2	16.1	29.5	40.6	46.3	49.8	52.1	56.4	56.8	56.8	56.8
	10	27.7	49.8	72.1	82.3	88.5	91.8	97.8	98.6	98.7	98.8
653520	2	10.6	17.7	21.7	22.4	22.5	22.5	22.5	22.5	22.5	22.5
	10	20.8	38.4	58.0	68.2	74.7	78.4	88.0	93.4	95.6	96.6
653550	2	12.2	18.9	21.1	21.4	21.4	21.4	21.4	21.4	21.4	21.4
	10	25.1	46.1	65.7	75.9	82.5	86.2	92.9	93.9	94.2	94.5
653570	2	10.2	16.6	20.9	22.7	23.1	23.1	23.1	23.1	23.1	23.1
	10	25.2	45.3	65.3	75.2	81.6	85.2	92.3	94.5	95.3	95.8
653610	2	10.8	17.6	21.2	22.7	23.7	24.3	24.6	24.6	24.6	24.6
	10	24.9	45.8	66.0	76.1	82.4	85.9	92.6	93.6	93.7	93.8
653760	2	12.3	21.1	28.6	32.9	35.8	37.6	40.5	40.6	40.6	40.6
	10	23.3	42.4	62.9	74.4	82.1	86.5	95.4	97.1	97.4	97.5
653800	2	14.8	26.7	35.4	38.6	39.4	39.7	39.7	39.7	39.8	39.8
	10	23.8	44.8	66.0	78.2	85.7	89.9	97.6	99.0	99.5	99.7
653870	2	11.3	20.4	27.1	30.4	32.4	33.5	35.8	36.3	36.3	36.3
	10	22.5	41.6	60.2	70.9	78.4	82.8	92.8	95.2	95.8	96.0
654720	2	11.0	19.3	25.5	28.0	29.4	30.2	31.2	31.2	31.2	31.2
	10	19.6	35.4	51.7	61.3	69.9	74.9	87.5	92.4	93.8	94.2
655010	2	2.4	3.5	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	10	7.0	13.1	19.3	22.6	24.9	25.8	26.9	27.0	27.6	29.5
655020	2	4.9	7.7	10.1	11.4	12.1	12.6	13.3	13.3	13.3	13.3
	10	11.3	20.3	30.0	35.8	39.9	42.4	47.6	49.1	50.5	52.4
655050	2	7.2	11.5	14.3	15.4	15.6	15.6	15.6	15.6	15.6	15.6
	10	15.0	27.2	40.6	48.8	54.6	57.7	63.0	64.0	64.7	65.4
655070	2	6.3	10.0	12.7	14.0	14.8	15.2	15.3	15.4	15.4	15.4
	10	14.4	26.0	39.6	47.2	52.5	55.5	62.4	66.0	68.7	70.8
655100	2	7.0	10.9	13.1	13.9	14.0	14.0	14.0	14.0	14.0	14.0
	10	17.3	31.7	46.9	55.7	61.7	65.3	72.1	73.2	73.3	73.3
655160	2	7.4	12.1	14.5	15.2	15.5	15.6	15.6	15.6	15.6	15.6
	10	15.9	29.6	44.3	53.2	59.4	62.8	69.9	72.2	73.2	73.5
655180	2	6.7	10.4	12.1	12.2	12.3	12.3	12.3	12.3	12.3	12.3
	10	15.6	29.1	44.4	52.1	57.4	60.5	68.2	71.2	72.1	72.4
655220	2	9.3	15.7	20.2	21.5	22.0	22.2	22.2	22.2	22.2	22.2
	10	19.1	35.2	53.4	64.0	71.2	75.4	84.7	86.8	87.5	87.9
655280	2	9.0	14.5	17.8	18.6	18.7	18.7	18.7	18.7	18.7	18.7
	10	21.6	40.2	59.2	68.8	75.5	79.4	88.4	91.2	92.0	92.5
655360	2	11.8	18.9	23.0	24.6	25.4	25.8	26.0	26.0	26.0	26.0
	10	23.5	42.7	63.0	73.8	80.9	84.7	91.9	93.4	93.9	94.2
655450	2	14.7	25.1	32.8	36.3	38.4	39.7	42.4	42.6	42.6	42.6
	10	25.9	47.1	68.3	78.8	85.9	89.8	96.8	98.3	98.7	98.9

LARS-WG Markov Model
May DRWH Reliability (%)

I-11

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655480	2	13.7	23.2	28.9	31.0	32.1	32.8	34.2	34.4	34.4	34.4
	10	25.4	46.8	67.6	79.6	86.8	90.8	98.1	99.2	99.4	99.5
655550	2	11.6	19.0	23.9	25.9	27.0	27.5	28.3	28.4	28.4	28.4
	10	22.5	40.9	62.3	74.2	82.5	87.2	96.8	98.4	98.9	99.0
655570	2	15.5	25.6	30.5	32.2	32.8	33.1	34.2	35.4	35.9	36.0
	10	35.2	60.6	79.5	88.3	92.8	95.1	98.7	99.6	99.8	99.9
655600	2	14.2	24.2	31.8	35.3	37.3	38.6	41.0	41.3	41.3	41.3
	10	25.8	47.0	68.9	80.3	87.5	91.3	97.7	98.7	98.9	98.9
655620	2	13.9	22.3	27.0	28.9	29.9	30.5	31.2	31.2	31.2	31.2
	10	26.4	48.0	68.7	79.9	86.5	90.1	96.7	98.2	98.5	98.6
655630	2	12.2	20.3	25.0	26.6	27.2	27.3	27.3	27.3	27.3	27.3
	10	25.1	45.9	66.1	76.5	83.5	87.4	95.2	96.7	96.9	97.1
655780	2	18.9	33.8	43.7	47.9	50.0	51.1	52.5	52.5	52.5	52.5
	10	32.4	56.6	76.0	85.2	90.8	93.6	98.3	99.0	99.2	99.2
655850	2	18.8	33.0	41.9	46.1	48.3	49.6	51.2	51.3	51.3	51.3
	10	35.0	61.2	80.4	88.5	93.0	95.3	98.9	99.3	99.4	99.5
655920	2	22.3	40.8	52.6	58.1	60.8	62.2	63.4	63.4	63.4	63.4
	10	38.8	64.9	82.8	90.7	94.6	96.4	99.0	99.3	99.5	99.6
655940	2	16.9	29.8	37.9	41.5	43.4	44.4	45.8	45.8	45.8	45.8
	10	29.9	52.1	70.2	79.8	86.1	89.3	95.6	96.7	97.0	97.2
655990	2	18.5	33.3	42.9	47.4	49.8	51.1	52.2	52.2	52.2	52.2
	10	33.5	56.7	75.6	84.8	90.3	93.0	97.9	98.6	98.8	98.9

LARS-WG Model

I-12

June DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	14.5	22.4	28.1	30.5	31.8	32.4	32.8	32.8	32.8	32.8
	10	25.4	46.2	68.9	80.7	87.0	89.9	95.3	96.1	96.2	96.3
653190	2	13.2	21.6	25.3	26.3	26.5	26.5	26.5	26.5	26.5	26.5
	10	29.2	51.5	72.4	82.8	88.4	91.3	96.5	97.5	97.7	97.7
653300	2	13.6	23.6	29.3	31.0	31.6	31.9	32.4	32.4	32.4	32.4
	10	27.9	50.9	71.9	82.7	89.0	92.4	97.9	98.6	98.7	98.7
653350	2	13.7	23.1	27.6	28.7	28.9	28.9	28.9	28.9	28.9	28.9
	10	27.1	50.3	70.1	80.2	86.3	90.0	97.2	98.7	99.1	99.2
653380	2	14.2	23.6	28.5	30.0	30.3	30.4	30.4	30.4	30.4	30.4
	10	25.4	47.5	69.1	80.3	86.9	90.7	97.8	99.3	99.5	99.5
653440	2	19.2	35.3	47.4	54.1	58.5	61.2	65.6	66.3	66.4	66.4
	10	32.8	57.9	78.2	87.5	93.1	95.7	99.4	99.9	99.9	99.9
653520	2	13.2	22.3	30.1	34.6	37.4	39.0	40.3	40.3	40.3	40.3
	10	25.1	46.8	68.9	80.1	86.6	90.3	96.8	98.3	98.9	99.2
653550	2	15.6	26.3	33.0	35.4	36.4	36.8	37.1	37.1	37.1	37.1
	10	29.1	52.2	75.0	85.2	90.8	93.9	98.5	98.9	99.0	99.1
653570	2	13.2	21.6	28.1	31.0	32.4	32.8	33.0	33.0	33.0	33.0
	10	26.1	48.3	73.1	84.1	90.0	93.0	97.8	98.8	99.1	99.2
653610	2	14.3	23.3	28.7	30.4	31.1	31.5	31.8	31.9	31.9	31.9
	10	29.1	54.3	76.3	85.9	91.5	94.3	98.6	99.1	99.2	99.2
653760	2	14.9	26.2	34.1	37.8	40.1	41.6	45.4	46.3	46.4	46.4
	10	28.9	52.1	73.6	83.5	89.6	93.0	98.5	99.5	99.7	99.7
653800	2	13.5	23.6	31.8	36.6	40.0	42.3	45.1	45.1	45.1	45.1
	10	25.4	47.7	68.2	79.0	86.3	90.6	98.4	99.7	99.9	99.9
653870	2	12.0	21.6	28.3	31.3	32.8	33.5	34.5	34.7	34.7	34.8
	10	23.5	43.3	62.8	73.6	81.1	85.7	95.8	98.3	98.8	99.0
654720	2	11.6	20.6	26.1	28.3	29.0	29.3	29.5	29.5	29.5	29.5
	10	20.7	39.7	57.2	67.6	75.5	80.4	92.3	96.3	97.6	98.0
655010	2	5.0	7.9	8.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	10	12.9	24.6	36.4	43.3	48.1	50.9	55.7	56.2	56.3	56.4
655020	2	8.7	14.3	18.7	20.3	21.0	21.3	22.8	22.8	22.8	22.8
	10	18.7	35.0	52.5	61.5	67.5	71.0	78.6	80.6	81.0	81.4
655050	2	10.0	16.6	21.2	23.6	25.4	26.7	27.5	27.5	27.5	27.5
	10	21.6	39.9	58.9	68.5	75.4	79.4	88.4	90.0	90.2	90.4
655070	2	13.1	21.2	26.7	29.1	30.5	31.2	32.6	32.6	32.6	32.6
	10	24.5	44.0	64.7	74.0	79.9	83.0	88.6	90.0	90.6	91.0
655100	2	11.0	17.8	21.1	22.1	22.5	22.7	22.7	22.7	22.7	22.7
	10	24.7	44.9	65.5	76.2	82.3	85.7	91.8	92.9	93.1	93.1
655160	2	12.6	20.4	23.6	23.8	23.9	23.9	23.9	23.9	23.9	23.9
	10	22.8	43.5	64.2	74.4	80.7	84.1	90.0	91.1	91.5	91.7
655180	2	13.2	21.4	25.6	26.4	26.5	26.5	26.5	26.5	26.5	26.5
	10	25.0	46.9	66.9	76.6	81.5	84.1	88.7	89.6	89.9	90.0
655220	2	12.8	21.4	26.3	27.7	28.4	28.9	29.3	29.3	29.3	29.3
	10	25.4	47.1	69.0	79.5	86.1	89.6	96.3	97.6	97.8	97.9
655280	2	11.5	17.8	21.7	22.8	23.0	23.0	23.1	23.1	23.1	23.1
	10	25.5	47.6	69.0	79.4	85.6	88.9	95.8	97.6	98.0	98.2
655360	2	14.3	22.9	27.9	29.4	30.1	30.6	31.1	31.1	31.1	31.1
	10	25.7	47.9	69.9	80.9	88.0	91.7	98.2	99.0	99.2	99.2
655450	2	15.0	24.5	29.6	31.3	31.9	32.2	32.9	33.3	33.3	33.3
	10	28.4	51.7	74.1	85.0	91.2	94.3	99.3	99.9	99.9	99.9

LARS-WG Markov Model
June DRWH Reliability (%)

I-13

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655480	2	16.9	29.0	36.6	39.6	41.2	42.0	42.8	42.8	42.9	42.9
	10	30.5	55.3	77.4	87.8	93.1	95.7	99.4	99.9	99.9	100.0
655550	2	12.6	20.9	25.1	26.5	27.0	27.0	27.1	27.1	27.1	27.1
	10	24.1	45.0	65.5	76.4	83.7	88.0	97.2	99.2	99.5	99.6
655570	2	13.8	23.9	29.1	30.9	31.6	31.8	31.9	32.0	32.2	32.3
	10	33.7	59.8	78.8	87.9	93.4	96.2	99.7	100.0	100.0	100.0
655600	2	12.6	22.3	29.9	33.9	36.5	38.1	40.2	40.5	40.5	40.5
	10	26.2	47.5	67.9	79.8	87.4	91.8	98.9	99.7	99.9	99.9
655620	2	13.6	23.0	28.6	30.7	31.8	32.5	33.5	33.5	33.5	33.5
	10	28.4	51.5	72.7	83.3	89.7	93.4	99.1	99.8	99.9	99.9
655630	2	13.6	22.1	27.0	29.4	30.8	31.7	32.9	32.9	32.9	32.9
	10	27.0	48.1	68.7	80.2	87.0	90.9	98.0	99.1	99.3	99.4
655780	2	23.4	44.4	58.3	65.3	69.6	72.0	75.2	75.4	75.4	75.4
	10	39.3	67.0	83.8	90.4	94.8	96.9	99.9	100.0	100.0	100.0
655850	2	24.2	44.9	57.8	64.4	68.2	70.3	73.2	73.2	73.2	73.2
	10	43.2	72.3	88.6	95.1	98.1	99.2	100.0	100.0	100.0	100.0
655920	2	23.9	44.9	59.6	67.6	72.7	76.0	80.5	80.7	80.7	80.7
	10	39.7	69.3	88.3	94.9	97.9	99.2	100.0	100.0	100.0	100.0
655940	2	19.6	36.3	47.0	53.1	57.0	59.6	64.2	64.5	64.5	64.5
	10	36.6	64.3	82.6	90.6	94.7	96.6	99.4	99.8	99.9	99.9
655990	2	19.8	36.5	47.9	53.7	57.3	59.7	62.9	63.0	63.0	63.0
	10	35.5	62.3	81.4	89.8	94.4	96.5	99.7	100.0	100.0	100.0

LARS-WG Model

I-14

July DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	18.5	31.0	38.0	40.3	41.4	42.0	42.7	42.7	42.7	42.7
	10	32.5	58.2	80.7	89.9	94.5	96.6	99.5	99.8	99.8	99.9
653190	2	18.0	31.1	37.2	38.7	39.0	39.1	39.1	39.1	39.1	39.1
	10	33.5	60.5	81.6	90.9	95.2	97.2	99.6	99.8	99.8	99.8
653300	2	16.8	29.1	37.1	40.7	42.4	43.3	44.3	44.3	44.3	44.3
	10	31.5	55.7	76.8	87.0	92.4	95.2	99.3	99.8	99.8	99.8
653350	2	13.1	24.1	31.7	35.0	36.5	37.1	37.5	37.5	37.5	37.5
	10	24.9	45.9	65.7	78.2	85.8	90.4	98.5	99.6	99.7	99.8
653380	2	12.9	22.7	29.5	32.4	33.5	33.8	34.0	34.0	34.0	34.0
	10	23.7	44.6	65.1	76.3	83.8	88.4	97.5	99.4	99.8	99.9
653440	2	8.5	15.2	20.9	24.5	27.6	30.0	38.2	40.9	41.3	41.3
	10	17.0	31.9	48.8	59.1	68.2	74.6	93.2	99.1	99.9	100.0
653520	2	15.4	25.9	33.8	37.1	39.3	41.0	44.3	44.5	44.5	44.5
	10	27.2	51.7	74.4	84.4	90.5	93.9	99.1	99.7	99.8	99.9
653550	2	19.1	35.3	46.4	51.0	53.1	54.2	55.1	55.2	55.2	55.2
	10	33.3	60.7	82.0	91.0	95.2	97.3	99.8	99.9	99.9	99.9
653570	2	15.5	24.6	29.3	30.9	31.6	31.9	32.1	32.1	32.1	32.1
	10	30.0	56.2	78.7	88.3	93.3	96.1	99.5	99.8	99.9	99.9
653610	2	17.9	31.1	38.2	41.0	42.2	42.7	42.9	42.9	42.9	42.9
	10	36.6	64.8	84.9	92.3	96.1	97.9	99.8	99.9	99.9	99.9
653760	2	15.4	27.3	35.0	38.6	40.5	41.6	44.0	44.8	45.1	45.1
	10	30.9	55.0	75.3	85.4	91.2	94.4	99.5	99.9	100.0	100.0
653800	2	8.6	15.3	20.9	23.5	25.0	26.1	29.5	30.1	30.2	30.2
	10	17.4	33.1	51.2	61.9	70.2	76.1	93.0	98.4	99.7	99.9
653870	2	6.7	12.0	15.9	17.8	18.8	19.1	19.4	19.5	19.5	19.5
	10	14.2	26.8	42.0	52.4	61.3	67.6	87.6	96.2	98.5	99.1
654720	2	6.0	11.1	15.3	17.7	19.4	20.4	21.5	21.6	21.6	21.6
	10	12.2	23.8	37.6	47.1	55.9	62.4	84.2	94.3	97.4	98.3
655010	2	9.9	16.3	19.3	19.8	19.9	19.9	19.9	19.9	19.9	19.9
	10	20.0	38.2	57.1	66.8	72.7	76.3	82.7	83.5	83.6	83.6
655020	2	13.7	23.5	30.0	32.3	33.5	34.0	34.6	34.6	34.6	34.6
	10	26.2	48.2	69.2	79.7	86.0	89.3	94.9	96.3	96.5	96.6
655050	2	15.8	27.2	33.5	35.7	37.0	37.9	39.4	39.4	39.4	39.4
	10	30.3	54.8	75.5	84.4	89.9	92.7	97.5	98.5	98.6	98.6
655070	2	15.1	27.1	35.3	38.2	39.6	40.4	42.0	42.0	42.0	42.0
	10	30.0	54.5	76.1	85.6	91.1	93.9	97.7	98.5	98.6	98.7
655100	2	15.5	25.4	29.8	30.9	31.3	31.6	31.8	31.8	31.8	31.8
	10	30.3	55.3	77.3	87.1	92.5	95.2	98.9	99.3	99.3	99.3
655160	2	15.6	26.6	33.8	36.8	38.2	38.9	39.2	39.2	39.2	39.2
	10	29.4	53.7	76.4	86.6	91.9	94.6	98.3	98.6	98.7	98.7
655180	2	17.3	30.1	39.4	43.1	44.9	45.7	46.2	46.2	46.2	46.2
	10	29.3	53.7	76.8	87.1	92.1	94.5	97.6	97.9	97.9	97.9
655220	2	16.2	28.0	34.6	36.7	37.6	38.1	38.6	38.7	38.7	38.7
	10	31.6	57.4	79.8	88.4	93.2	95.7	99.3	99.7	99.7	99.8
655280	2	17.6	29.3	36.6	39.8	40.9	41.1	41.2	41.2	41.2	41.2
	10	34.5	61.0	82.1	90.8	94.9	96.9	99.4	99.8	99.8	99.8
655360	2	15.8	26.7	33.6	35.6	36.3	36.5	36.7	36.7	36.7	36.7
	10	27.2	49.6	73.0	83.6	90.1	93.5	99.0	99.8	99.9	99.9
655450	2	9.6	16.2	20.6	22.2	22.7	22.9	23.0	23.0	23.0	23.0
	10	19.2	36.3	55.1	66.8	75.2	80.7	95.5	99.4	99.9	99.9

LARS-WG Markov Model
July DRWH Reliability (%)

I-15

		per capita roof area and storage									
		L									
Gauge	sq. m	0	40	80	120	160	200	400	600	800	1000
655480	2	17.4	29.8	36.7	40.1	41.9	43.1	45.6	45.7	45.7	45.7
	10	33.6	60.0	80.5	89.9	94.5	96.9	99.8	100.0	100.0	100.0
655550	2	12.9	22.1	29.1	32.3	34.1	35.3	36.7	36.7	36.7	36.7
	10	21.7	40.3	60.5	72.4	80.6	85.6	96.9	99.4	99.8	99.9
655570	2	6.3	10.4	12.2	12.6	12.7	12.7	12.8	12.8	12.8	12.8
	10	18.9	35.2	50.7	60.9	69.5	75.8	94.8	99.5	100.0	100.0
655600	2	8.7	15.2	19.3	21.4	22.6	23.5	26.1	26.7	26.7	26.7
	10	18.9	35.7	52.1	63.3	72.0	78.2	94.9	99.1	99.8	99.9
655620	2	7.2	12.3	16.0	17.8	18.9	19.6	21.2	21.4	21.4	21.4
	10	17.9	34.6	51.3	61.8	70.2	76.3	94.3	99.1	99.8	99.9
655630	2	8.2	13.4	16.8	18.3	19.2	19.8	22.1	22.3	22.3	22.3
	10	17.3	32.6	49.0	59.7	68.2	74.2	92.5	98.3	99.4	99.5
655780	2	8.2	15.9	23.0	28.0	32.3	35.9	47.3	50.2	50.4	50.4
	10	18.2	33.6	50.4	61.8	71.3	77.9	95.7	99.7	100.0	100.0
655850	2	10.9	20.8	28.5	33.9	38.3	41.8	51.9	53.5	53.6	53.6
	10	23.9	44.6	62.4	74.1	82.6	88.0	99.0	100.0	100.0	100.0
655920	2	13.4	24.4	33.9	40.0	45.2	49.8	65.0	68.6	68.8	68.8
	10	29.0	52.0	72.2	82.5	89.3	93.2	99.6	100.0	100.0	100.0
655940	2	9.9	18.5	25.0	29.1	32.4	34.9	42.3	44.3	44.5	44.5
	10	23.4	42.8	61.3	72.7	81.1	86.6	98.3	99.9	100.0	100.0
655990	2	7.6	14.3	19.6	23.1	25.8	27.9	33.2	34.2	34.3	34.3
	10	18.3	34.3	50.9	62.0	71.4	78.0	95.6	99.6	100.0	100.0

LARS-WG Model

I-16

August DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	19.1	34.2	42.1	45.0	46.4	47.2	48.5	48.5	48.5	48.5
	10	34.8	62.6	83.5	92.0	96.2	98.1	99.9	100.0	100.0	100.0
653190	2	22.9	40.6	50.9	56.2	59.2	60.8	62.1	62.1	62.1	62.1
	10	40.8	71.0	89.2	95.7	98.1	99.1	100.0	100.0	100.0	100.0
653300	2	18.7	33.6	42.5	46.8	49.3	50.8	53.5	53.7	53.7	53.7
	10	35.5	62.7	83.0	91.6	95.7	97.6	99.9	100.0	100.0	100.0
653350	2	12.4	20.7	25.6	27.7	28.8	29.6	30.8	30.8	30.8	30.8
	10	26.0	46.9	67.0	77.5	84.8	89.2	98.0	99.6	99.9	99.9
653380	2	9.6	16.8	21.4	23.4	24.0	24.3	24.6	24.6	24.6	24.6
	10	20.7	38.8	56.9	68.4	76.4	81.7	95.2	98.9	99.7	99.8
653440	2	6.5	11.4	15.5	17.7	19.1	20.0	21.9	22.8	23.4	23.6
	10	13.3	25.1	37.4	45.4	51.9	56.5	73.4	87.3	96.0	99.2
653520	2	14.8	25.8	32.4	35.6	37.6	38.9	41.8	42.3	42.3	42.3
	10	29.0	55.1	76.6	86.6	91.8	94.7	99.5	99.9	100.0	100.0
653550	2	24.3	43.5	55.0	61.8	66.5	69.4	72.8	72.8	72.8	72.8
	10	43.5	74.8	91.5	96.4	98.4	99.3	100.0	100.0	100.0	100.0
653570	2	15.1	26.2	31.4	33.4	34.3	34.7	34.8	34.9	34.9	34.9
	10	32.3	57.9	78.4	87.9	93.2	95.9	99.7	99.9	100.0	100.0
653610	2	19.0	34.1	42.2	45.7	47.6	48.7	50.0	50.1	50.1	50.1
	10	37.6	66.4	86.3	93.9	97.4	98.8	100.0	100.0	100.0	100.0
653760	2	15.3	27.1	34.7	37.9	39.6	40.7	42.0	42.3	42.5	42.5
	10	30.5	55.5	76.5	86.5	91.8	94.8	99.5	99.9	100.0	100.0
653800	2	6.7	11.8	16.2	18.8	20.4	21.3	22.7	22.9	23.0	23.0
	10	15.8	29.6	43.4	52.2	59.3	64.6	82.1	92.3	97.5	99.4
653870	2	3.4	5.6	7.0	7.6	7.9	7.9	7.9	7.9	7.9	7.9
	10	9.0	16.9	25.9	31.7	36.8	40.7	58.1	75.6	89.0	95.4
654720	2	2.7	4.3	5.3	5.8	6.1	6.3	6.7	6.8	6.8	6.8
	10	7.1	14.3	21.7	26.4	30.5	33.7	49.2	67.1	82.8	91.6
655010	2	14.5	24.0	28.7	29.9	30.2	30.3	30.3	30.3	30.3	30.3
	10	26.0	49.4	71.4	81.5	87.7	91.1	96.8	97.4	97.5	97.5
655020	2	16.2	26.7	31.9	33.6	34.3	34.4	34.5	34.5	34.5	34.5
	10	31.5	57.6	79.1	88.7	93.6	96.2	99.5	99.8	99.8	99.8
655050	2	20.2	33.6	40.3	42.3	42.8	43.0	43.3	43.3	43.4	43.4
	10	35.8	65.2	86.2	93.9	97.0	98.3	99.8	99.9	100.0	100.0
655070	2	17.2	30.7	39.0	42.1	43.6	44.6	45.5	45.5	45.5	45.5
	10	35.7	63.7	85.2	92.8	96.3	98.0	99.8	100.0	100.0	100.0
655100	2	23.1	39.4	47.7	50.4	51.4	51.9	52.5	52.5	52.5	52.5
	10	39.4	68.1	88.2	94.8	97.6	98.8	99.9	99.9	100.0	100.0
655160	2	20.7	35.4	43.1	46.0	47.3	48.0	48.8	48.8	48.8	48.8
	10	38.2	67.3	87.8	94.3	97.5	98.7	99.9	100.0	100.0	100.0
655180	2	22.7	38.7	49.1	53.7	56.2	57.6	59.4	59.4	59.4	59.4
	10	38.3	67.2	88.7	95.4	98.1	99.0	99.9	99.9	100.0	100.0
655220	2	18.5	31.9	39.1	41.9	43.0	43.7	44.1	44.1	44.1	44.1
	10	35.3	63.0	85.3	93.4	96.9	98.4	99.9	100.0	100.0	100.0
655280	2	22.8	38.5	46.8	50.5	52.6	53.6	54.4	54.4	54.4	54.4
	10	42.8	72.4	91.3	96.5	98.5	99.3	100.0	100.0	100.0	100.0
655360	2	19.0	31.8	40.2	43.3	44.8	45.5	45.9	45.9	45.9	45.9
	10	33.1	58.6	81.7	90.0	94.5	96.6	99.6	99.9	100.0	100.0
655450	2	10.8	17.9	22.9	25.6	27.1	27.8	28.2	28.2	28.2	28.2
	10	19.4	36.7	55.2	65.9	73.4	78.0	89.5	95.7	98.9	99.8

LARS-WG Markov Model

I-17

August DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	22.2	40.5	51.0	55.9	58.3	59.6	61.8	62.0	62.0	62.0
	10	42.3	73.3	90.9	96.2	98.3	99.1	100.0	100.0	100.0	100.0
655550	2	12.1	21.1	27.6	30.4	32.0	33.0	35.5	35.7	35.8	35.8
	10	23.5	42.9	63.0	73.7	80.8	85.3	96.0	99.0	99.8	99.9
655570	2	7.0	11.6	13.5	14.0	14.1	14.1	14.1	14.1	14.1	14.1
	10	19.0	35.6	50.5	58.9	65.2	69.3	83.0	93.9	98.6	99.8
655600	2	10.2	17.6	21.0	22.0	22.1	22.1	22.2	22.2	22.3	22.3
	10	22.4	43.1	59.4	69.2	75.6	79.9	91.1	97.0	99.3	99.8
655620	2	6.1	9.7	11.6	12.1	12.2	12.2	12.2	12.3	12.3	12.3
	10	15.2	28.6	42.9	51.2	57.4	61.6	77.4	90.8	97.5	99.4
655630	2	8.5	14.7	19.1	20.9	21.8	22.3	23.6	23.7	23.8	23.8
	10	18.2	34.2	50.4	59.9	66.8	71.4	84.3	92.7	97.3	98.9
655780	2	4.0	6.9	9.6	11.2	12.6	13.8	16.4	18.3	19.4	19.7
	10	11.0	20.5	30.2	36.8	42.8	47.5	68.7	86.8	96.4	99.4
655850	2	6.1	10.7	13.6	15.4	17.0	18.0	20.7	22.8	23.6	23.8
	10	18.2	34.2	48.6	57.3	64.3	69.8	88.6	97.6	99.7	100.0
655920	2	11.0	20.3	26.4	29.3	31.2	32.5	38.1	43.7	46.0	46.3
	10	29.5	54.1	72.1	81.4	87.3	90.9	98.4	99.9	100.0	100.0
655940	2	4.3	7.4	9.4	10.2	10.7	11.1	12.3	13.4	13.9	14.1
	10	15.9	29.4	41.4	49.3	56.0	61.4	82.9	95.3	99.3	99.9
655990	2	3.8	6.2	8.2	9.4	10.0	10.2	10.6	11.0	11.1	11.2
	10	14.5	26.9	37.3	44.0	49.4	53.8	73.0	88.8	97.1	99.5

LARS-WG Model

I-18

September DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	15.1	27.0	33.0	35.2	36.3	37.1	38.1	38.2	38.2	38.2
	10	32.0	58.2	79.7	89.2	94.1	96.6	99.7	100.0	100.0	100.0
653190	2	20.7	36.8	45.2	49.5	52.4	54.6	59.0	59.2	59.2	59.2
	10	44.1	75.0	91.4	96.8	98.9	99.6	100.0	100.0	100.0	100.0
653300	2	20.2	34.7	42.1	45.7	47.8	49.0	51.7	52.2	52.2	52.2
	10	37.4	66.6	86.4	93.6	97.2	98.7	99.9	100.0	100.0	100.0
653350	2	13.7	23.3	28.4	30.2	31.0	31.5	32.5	32.5	32.5	32.5
	10	30.0	54.4	75.8	85.5	90.7	93.6	98.8	99.8	99.9	100.0
653380	2	12.1	20.9	25.3	26.3	26.6	26.6	26.7	26.7	26.7	26.7
	10	24.9	46.0	65.0	75.5	82.8	87.1	95.9	98.8	99.7	99.9
653440	2	11.3	19.6	25.4	28.1	29.8	31.0	33.3	33.5	33.6	33.7
	10	21.0	39.2	56.3	66.1	72.9	77.1	86.9	91.4	95.1	97.8
653520	2	14.8	25.1	28.9	29.5	29.7	29.8	30.1	30.4	30.5	30.5
	10	32.8	61.2	81.9	90.5	94.7	96.8	99.7	100.0	100.0	100.0
653550	2	22.4	38.6	46.8	50.9	53.9	56.3	64.4	65.6	65.6	65.6
	10	44.8	75.2	92.9	97.4	99.0	99.6	100.0	100.0	100.0	100.0
653570	2	16.0	28.9	34.6	36.6	37.8	38.6	39.3	39.3	39.3	39.3
	10	36.4	64.4	83.8	92.0	96.0	97.9	99.9	100.0	100.0	100.0
653610	2	18.5	31.5	37.2	39.1	40.0	40.3	40.9	41.0	41.0	41.0
	10	38.3	67.7	87.7	94.8	97.8	99.0	100.0	100.0	100.0	100.0
653760	2	15.3	25.7	32.6	35.6	37.4	38.4	40.0	40.1	40.1	40.1
	10	28.7	52.9	74.5	85.0	91.4	94.8	99.5	99.9	100.0	100.0
653800	2	8.4	14.9	19.4	21.4	22.6	23.3	24.9	25.1	25.1	25.1
	10	19.2	35.3	52.1	61.6	68.6	73.1	84.4	91.1	95.7	98.3
653870	2	6.0	10.2	12.6	13.3	13.5	13.6	13.7	13.7	13.7	13.7
	10	15.7	28.8	42.0	49.5	54.6	57.7	64.9	70.7	79.3	87.8
654720	2	4.2	6.8	8.8	10.0	10.8	11.3	12.0	12.0	12.0	12.0
	10	12.2	22.5	32.6	38.1	42.0	44.5	50.6	55.8	65.0	76.5
655010	2	8.7	13.7	16.0	16.3	16.3	16.4	16.4	16.4	16.4	16.4
	10	19.0	35.7	53.9	64.8	73.6	79.4	94.9	98.8	99.2	99.2
655020	2	12.2	19.1	22.4	23.5	24.1	24.3	24.4	24.4	24.4	24.4
	10	24.4	45.4	67.5	79.2	86.7	91.3	99.3	99.9	100.0	100.0
655050	2	12.5	20.1	23.4	24.1	24.4	24.5	24.6	24.6	24.6	24.6
	10	26.8	51.2	73.1	83.5	90.1	94.0	99.6	100.0	100.0	100.0
655070	2	13.8	23.1	28.4	30.8	32.2	33.2	34.7	34.8	34.9	34.9
	10	27.2	50.7	72.9	84.3	91.0	94.6	99.7	100.0	100.0	100.0
655100	2	17.0	28.7	35.4	38.3	40.1	41.2	43.0	43.1	43.1	43.1
	10	34.3	61.4	83.7	92.6	96.7	98.5	100.0	100.0	100.0	100.0
655160	2	13.5	21.6	25.9	27.5	28.3	28.6	29.0	29.0	29.0	29.0
	10	30.5	54.6	76.7	86.9	93.0	96.1	99.9	100.0	100.0	100.0
655180	2	14.6	23.7	28.1	30.1	31.2	31.9	33.5	33.7	33.7	33.7
	10	31.7	58.0	78.5	88.2	93.3	95.9	99.8	100.0	100.0	100.0
655220	2	17.1	27.7	32.2	33.8	34.7	35.2	35.8	35.8	35.8	35.8
	10	34.7	62.8	84.5	93.4	97.1	98.7	100.0	100.0	100.0	100.0
655280	2	19.4	34.2	42.9	46.4	48.4	49.6	51.2	51.3	51.3	51.3
	10	40.5	70.5	91.1	97.1	99.0	99.7	100.0	100.0	100.0	100.0
655360	2	18.9	31.3	38.2	40.7	42.1	42.8	43.9	43.9	43.9	43.9
	10	34.8	62.4	85.7	93.2	96.8	98.5	100.0	100.0	100.0	100.0
655450	2	15.2	24.1	28.7	30.3	31.1	31.6	32.2	32.2	32.2	32.2
	10	31.0	55.4	75.4	84.7	90.1	93.1	98.0	99.1	99.6	99.9

LARS-WG Markov Model

I-19

September DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	21.5	39.4	49.5	54.7	58.3	61.0	65.9	66.3	66.4	66.4
	10	42.3	73.5	90.7	96.0	98.3	99.3	100.0	100.0	100.0	100.0
655550	2	13.8	22.7	27.9	30.1	31.4	31.9	32.4	32.5	32.6	32.6
	10	28.5	51.0	72.0	82.1	88.5	91.8	98.0	99.4	99.8	99.9
655570	2	11.9	20.8	25.7	27.8	28.4	28.5	28.6	28.6	28.6	28.6
	10	28.0	50.7	68.7	77.9	83.8	87.0	93.5	96.3	98.5	99.6
655600	2	12.0	20.5	25.4	27.6	28.7	29.1	29.2	29.2	29.2	29.2
	10	29.9	53.5	72.5	82.4	88.1	91.4	97.4	98.9	99.6	99.9
655620	2	11.1	19.0	23.6	25.7	26.8	27.5	28.4	28.4	28.4	28.4
	10	24.1	44.1	61.6	71.5	77.9	81.5	88.5	92.8	96.5	98.7
655630	2	9.6	15.5	18.6	19.7	20.0	20.0	20.1	20.1	20.1	20.1
	10	23.6	43.4	61.2	71.7	78.4	82.7	92.4	95.9	97.8	98.9
655780	2	6.5	11.2	15.9	18.6	20.3	21.4	24.2	24.6	24.7	24.8
	10	15.2	28.4	41.1	48.7	54.0	57.2	66.3	75.1	85.3	93.8
655850	2	8.8	15.2	18.4	19.9	20.9	21.6	22.5	22.6	22.8	23.0
	10	22.3	41.4	57.0	65.9	71.9	75.9	86.8	94.0	98.1	99.6
655920	2	14.6	26.1	32.9	36.4	38.3	39.4	40.5	41.7	43.0	43.7
	10	36.2	64.2	82.3	90.1	94.2	96.4	99.5	99.9	100.0	100.0
655940	2	4.4	7.5	9.7	10.8	11.0	11.0	11.0	11.0	11.1	11.1
	10	18.3	33.3	45.0	51.5	56.0	59.1	70.4	82.8	93.0	98.0
655990	2	4.6	7.1	8.3	9.0	9.1	9.1	9.2	9.2	9.2	9.2
	10	14.7	27.4	38.8	45.2	49.7	52.8	63.0	74.0	85.8	94.3

LARS-WG Model

I-20

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	5.5	8.3	9.7	10.2	10.5	10.7	10.9	10.9	10.9	10.9
	10	14.2	26.9	42.0	52.2	61.2	67.5	89.2	98.3	99.8	100.0
653190	2	10.9	18.4	22.6	23.6	24.0	24.3	26.3	27.2	27.4	27.4
	10	23.6	43.3	63.0	73.6	81.4	86.1	97.1	99.8	100.0	100.0
653300	2	10.3	16.5	19.6	21.1	21.7	22.0	22.9	23.2	23.3	23.4
	10	21.7	39.2	56.7	67.9	77.0	82.4	95.9	99.7	100.0	100.0
653350	2	10.7	18.3	23.1	25.4	26.7	27.5	28.7	28.8	28.8	28.8
	10	23.0	42.9	61.8	72.9	80.9	85.8	97.0	99.7	100.0	100.0
653380	2	12.6	21.0	25.8	26.8	27.1	27.1	27.1	27.1	27.1	27.1
	10	22.3	41.8	62.0	73.0	80.9	85.5	96.2	99.0	99.7	99.9
653440	2	11.3	18.6	23.2	25.3	26.1	26.4	26.7	26.9	27.0	27.0
	10	24.0	43.8	62.4	73.3	80.6	85.0	94.8	97.3	98.3	99.0
653520	2	10.5	17.1	20.1	20.4	20.5	20.5	20.5	20.5	20.6	20.6
	10	20.1	37.7	56.8	67.7	76.1	81.5	95.5	99.6	100.0	100.0
653550	2	11.5	18.7	21.6	22.9	23.9	24.7	28.9	32.3	33.2	33.3
	10	27.0	50.0	67.4	77.2	84.4	88.8	98.1	99.9	100.0	100.0
653570	2	12.4	20.1	23.7	25.1	25.8	26.2	27.0	27.0	27.0	27.0
	10	26.1	46.6	66.3	76.7	84.5	88.9	97.4	99.7	100.0	100.0
653610	2	12.4	20.3	24.0	25.1	25.5	25.7	25.8	25.8	25.8	25.8
	10	25.0	46.6	64.9	75.4	83.3	87.8	97.7	99.9	100.0	100.0
653760	2	10.9	18.0	21.5	22.2	22.4	22.5	22.9	22.9	22.9	22.9
	10	23.2	44.0	63.1	73.4	81.0	85.6	96.5	99.6	100.0	100.0
653800	2	9.8	15.1	17.7	18.5	18.7	18.7	18.8	18.8	18.8	18.8
	10	22.8	44.1	62.8	72.7	79.3	83.7	93.6	96.3	97.7	98.8
653870	2	7.2	11.7	14.5	15.6	16.1	16.3	16.4	16.4	16.4	16.4
	10	16.7	30.7	45.9	55.5	63.3	68.4	81.1	84.7	87.1	90.2
654720	2	5.7	9.1	11.0	12.2	13.2	13.9	15.6	15.7	15.7	15.7
	10	17.2	31.0	45.4	53.7	60.0	64.1	73.6	76.7	78.9	82.1
655010	2	3.8	6.6	9.2	10.5	11.2	11.5	11.6	11.6	11.6	11.6
	10	9.0	17.2	27.6	35.0	42.5	47.9	70.4	86.9	94.2	96.4
655020	2	3.8	5.4	6.2	6.4	6.6	6.6	6.7	6.7	6.7	6.7
	10	10.9	21.0	32.9	41.0	48.3	54.0	79.1	94.7	99.1	99.8
655050	2	4.9	7.3	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
	10	13.0	24.7	38.5	48.2	56.7	63.1	87.1	97.7	99.7	100.0
655070	2	4.6	6.5	6.9	7.0	7.0	7.0	7.0	7.1	7.1	7.1
	10	13.3	25.8	40.3	49.6	57.7	63.6	87.2	97.8	99.8	100.0
655100	2	6.8	10.1	11.4	11.8	11.9	12.0	12.4	12.4	12.5	12.5
	10	14.4	27.6	43.5	54.4	64.0	70.5	91.9	99.2	100.0	100.0
655160	2	5.5	8.9	10.6	11.2	11.3	11.4	11.5	11.5	11.5	11.5
	10	15.5	29.7	45.3	55.5	64.2	70.4	91.3	98.9	100.0	100.0
655180	2	6.7	9.1	9.8	9.9	10.0	10.0	10.0	10.1	10.1	10.1
	10	17.9	34.1	51.0	60.9	69.2	75.0	92.8	99.0	99.9	100.0
655220	2	9.2	14.5	16.7	17.1	17.2	17.2	17.2	17.3	17.3	17.3
	10	20.3	38.5	57.2	68.0	76.9	82.6	96.7	99.8	100.0	100.0
655280	2	11.3	19.0	23.7	26.0	27.3	28.1	29.1	29.2	29.2	29.2
	10	32.4	57.1	78.2	88.7	94.0	96.8	99.9	100.0	100.0	100.0
655360	2	9.7	16.4	20.2	22.0	23.2	23.8	24.3	24.3	24.3	24.3
	10	23.1	42.2	60.9	71.4	79.8	85.1	96.9	99.8	100.0	100.0
655450	2	10.0	16.7	19.8	20.8	21.2	21.3	21.4	21.4	21.4	21.4
	10	25.0	45.0	64.4	75.1	82.6	87.3	97.5	99.5	99.8	99.9

LARS-WG Markov Model

I-21

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	12.6	21.7	27.5	30.2	31.9	33.0	37.0	38.6	38.9	38.9
	10	28.2	49.2	69.8	80.2	87.8	92.0	99.4	100.0	100.0	100.0
655550	2	8.9	13.9	17.1	18.6	19.3	19.7	19.9	20.0	20.0	20.0
	10	21.3	38.4	57.0	68.3	76.7	81.9	95.5	99.2	99.8	99.9
655570	2	10.9	17.7	21.6	23.3	24.1	24.4	24.5	24.5	24.5	24.5
	10	29.5	53.6	73.8	83.6	89.8	93.3	98.7	99.4	99.7	99.9
655600	2	8.2	12.6	14.8	15.9	16.6	17.1	17.4	17.4	17.4	17.4
	10	22.6	41.4	59.6	70.5	78.3	83.5	96.4	99.1	99.7	99.9
655620	2	11.6	20.1	26.4	29.7	32.1	33.8	38.3	39.0	39.1	39.1
	10	22.6	42.6	62.7	74.1	82.0	86.8	96.2	98.1	98.9	99.5
655630	2	9.0	13.4	15.9	16.8	17.0	17.1	17.1	17.1	17.1	17.1
	10	23.0	42.3	60.3	70.9	78.0	82.6	93.9	97.4	98.7	99.3
655780	2	10.9	19.6	25.8	29.0	31.1	32.6	36.6	37.6	37.7	37.7
	10	24.1	43.6	60.3	69.7	76.6	80.9	90.4	92.9	94.6	96.4
655850	2	13.3	23.2	28.8	31.1	32.3	32.9	34.1	34.2	34.2	34.2
	10	29.6	53.8	72.9	82.3	87.7	91.0	96.6	98.1	99.1	99.7
655920	2	13.8	25.2	32.9	37.1	40.0	41.8	44.9	45.1	45.4	45.8
	10	30.5	56.3	75.7	85.8	91.8	95.2	99.7	100.0	100.0	100.0
655940	2	6.6	12.0	15.4	17.1	18.3	18.8	19.1	19.1	19.1	19.1
	10	20.6	37.3	52.3	60.5	66.1	69.9	80.0	85.2	90.4	95.3
655990	2	7.8	12.9	15.1	15.7	15.8	15.8	15.8	15.8	15.8	15.8
	10	20.4	38.4	53.9	62.7	68.6	72.2	80.0	83.6	87.7	92.6

LARS-WG Model

I-22

November DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	1.9	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	10	4.7	9.1	14.5	17.7	20.1	21.8	34.8	57.7	80.3	93.8
653190	2	5.7	9.4	13.5	16.2	18.0	18.8	19.5	19.6	19.6	19.6
	10	10.7	19.4	31.4	40.1	48.4	54.1	75.8	89.0	95.5	98.7
653300	2	4.2	6.3	7.9	8.5	8.7	8.7	8.7	8.7	8.7	8.7
	10	9.3	17.4	28.0	35.5	42.3	46.9	66.6	82.8	92.8	98.0
653350	2	3.1	4.4	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	10	8.5	15.8	25.6	32.7	39.6	44.6	67.9	87.0	95.8	99.1
653380	2	5.4	9.2	12.9	14.9	16.1	16.6	16.9	16.9	16.9	16.9
	10	10.4	19.8	32.6	41.8	50.9	57.1	81.4	94.2	98.1	99.5
653440	2	6.3	9.8	12.2	13.0	13.4	13.4	13.5	13.5	13.6	13.6
	10	12.5	23.5	37.1	46.4	54.9	60.8	82.3	93.0	96.7	98.1
653520	2	5.3	9.4	14.9	18.3	20.9	22.1	23.1	23.1	23.1	23.1
	10	9.0	16.2	28.0	36.6	45.3	51.1	72.5	86.3	94.3	98.4
653550	2	5.0	8.2	9.4	9.5	9.6	9.6	9.7	9.9	10.3	10.6
	10	11.6	22.0	32.9	41.0	49.0	54.4	75.4	89.8	96.6	99.2
653570	2	5.0	6.9	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2
	10	10.8	20.3	32.2	40.6	48.7	54.0	75.2	88.8	95.5	98.9
653610	2	8.0	14.0	19.5	22.0	23.5	24.2	24.7	24.7	24.7	24.7
	10	14.2	26.5	41.5	51.3	60.3	66.0	84.1	93.3	97.8	99.6
653760	2	3.6	5.5	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9
	10	8.6	16.9	27.6	35.1	42.4	47.8	71.5	88.2	95.9	99.1
653800	2	6.4	9.4	10.6	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	10	14.3	27.8	43.6	53.4	61.2	66.7	85.7	93.8	96.7	98.0
653870	2	3.8	5.2	6.1	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	10	9.6	18.1	28.4	35.5	41.4	45.5	62.7	73.6	79.0	82.9
654720	2	4.4	6.6	8.0	8.4	8.6	8.6	8.6	8.7	8.7	8.7
	10	12.2	22.8	34.1	41.2	47.5	51.6	65.4	72.4	75.8	78.4
655010	2	3.8	7.5	12.6	14.5	15.0	15.1	15.2	15.2	15.2	15.2
	10	6.3	11.7	18.7	23.6	28.2	30.9	40.3	53.3	69.6	82.4
655020	2	3.3	6.1	8.6	8.9	9.0	9.0	9.0	9.0	9.0	9.0
	10	6.2	11.9	19.4	24.3	28.2	30.7	39.5	55.0	75.4	90.4
655050	2	2.9	4.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	10	6.5	12.5	20.1	24.6	28.4	30.5	41.8	62.4	83.3	95.4
655070	2	2.5	4.3	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	10	8.0	14.8	22.4	26.9	30.4	32.6	43.4	63.8	84.5	95.9
655100	2	3.4	5.0	5.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9
	10	7.3	13.7	22.0	28.2	33.8	37.4	53.5	73.7	90.0	97.7
655160	2	3.2	5.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
	10	10.2	19.6	29.8	36.1	41.7	45.4	61.0	78.2	91.7	97.9
655180	2	3.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	10	13.8	24.8	36.3	42.5	47.2	50.2	65.2	82.3	93.7	98.5
655220	2	4.0	6.3	8.5	9.5	9.8	9.8	9.8	9.8	9.8	9.8
	10	8.1	15.5	25.9	33.5	40.9	46.1	69.1	87.0	95.7	99.1
655280	2	6.2	9.2	10.8	11.6	12.1	12.6	13.4	13.4	13.4	13.4
	10	14.8	27.7	43.0	53.3	62.1	68.1	89.8	98.8	99.9	100.0
655360	2	3.5	5.5	6.7	7.1	7.4	7.5	7.7	7.7	7.7	7.7
	10	9.0	17.6	27.5	34.8	41.4	46.3	69.3	87.7	96.5	99.4
655450	2	3.9	5.8	6.8	7.1	7.2	7.2	7.2	7.2	7.2	7.2
	10	11.8	21.7	33.0	40.9	48.1	53.6	76.7	92.3	98.1	99.5

LARS-WG Markov Model

I-23

November DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	4.2	6.6	8.1	8.8	9.3	9.7	10.4	10.8	11.0	11.1
	10	14.1	25.6	39.3	48.0	56.0	61.6	84.7	96.8	99.6	100.0
655550	2	3.4	5.5	6.8	7.5	7.7	7.7	7.7	7.7	7.7	7.7
	10	9.8	18.2	28.0	35.1	41.5	46.2	67.8	85.7	95.1	98.8
655570	2	8.2	12.5	14.3	14.9	15.1	15.1	15.2	15.2	15.2	15.2
	10	24.0	43.6	62.4	73.0	80.5	85.5	97.2	99.3	99.7	99.9
655600	2	4.5	6.2	6.8	7.0	7.0	7.0	7.1	7.1	7.1	7.1
	10	13.2	24.7	36.9	44.7	51.2	55.8	76.0	90.7	97.2	99.1
655620	2	5.3	8.9	10.3	10.4	10.4	10.4	10.8	11.4	11.6	11.6
	10	13.3	25.5	39.4	48.8	56.7	62.5	83.4	94.0	97.7	98.9
655630	2	4.9	7.1	8.6	9.2	9.3	9.3	9.3	9.3	9.3	9.3
	10	15.5	28.8	42.9	51.3	58.4	63.5	81.7	91.3	95.8	97.9
655780	2	10.5	17.2	21.0	22.6	23.5	24.3	26.0	26.8	27.0	27.1
	10	25.3	46.0	64.9	75.3	82.2	86.5	95.6	97.9	98.6	99.0
655850	2	9.9	16.8	20.6	22.5	23.8	24.5	26.0	26.0	26.1	26.1
	10	25.4	47.1	66.2	76.6	83.8	88.4	97.9	99.4	99.7	99.8
655920	2	10.1	18.2	23.2	25.6	27.1	28.1	31.0	31.9	32.0	32.1
	10	26.1	47.9	66.5	77.0	84.2	88.8	98.4	99.9	100.0	100.0
655940	2	9.0	15.8	19.7	21.3	22.4	23.1	23.6	23.6	23.6	23.6
	10	24.2	44.0	60.8	70.5	77.2	81.3	90.5	93.8	95.7	97.3
655990	2	8.8	14.5	17.3	17.9	18.0	18.0	18.0	18.0	18.0	18.0
	10	20.7	39.2	57.4	67.4	74.4	78.8	89.0	91.9	93.7	95.5

LARS-WG Model

I-24

December DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	12.3	24.3	33.1	34.6	34.7	34.7	34.7	34.7	34.7	34.7
	10	12.4	24.5	40.2	49.6	55.1	57.8	60.1	61.9	67.6	76.6
653190	2	3.3	3.9	4.4	4.7	4.8	4.9	5.1	5.1	5.1	5.2
	10	12.7	21.8	31.6	35.6	38.1	40.0	49.8	65.0	80.5	90.3
653300	2	1.5	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	10	8.5	15.2	21.0	23.9	26.3	28.1	37.4	50.5	66.8	80.6
653350	2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	10	10.2	17.9	26.3	29.6	31.3	32.2	36.3	48.1	67.9	85.2
653380	2	7.7	12.9	17.5	19.9	21.1	21.4	21.7	21.8	21.8	21.8
	10	12.1	22.8	38.7	47.8	55.2	58.9	68.8	80.4	91.2	96.9
653440	2	4.7	8.7	12.2	14.0	15.2	15.9	17.3	17.4	17.4	17.4
	10	8.0	15.7	25.5	33.2	40.8	45.8	62.7	76.3	87.2	93.7
653520	2	13.1	23.5	34.0	37.4	39.4	40.3	41.8	41.9	41.9	41.9
	10	14.8	28.5	45.9	54.5	62.0	65.4	74.2	82.4	89.1	93.9
653550	2	5.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	10	10.6	21.5	32.7	39.5	44.4	47.0	57.2	69.7	82.5	91.5
653570	2	6.3	8.3	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	10	8.4	17.3	30.5	38.7	45.0	48.0	56.9	69.7	82.8	91.3
653610	2	4.6	6.8	8.5	9.4	10.0	10.4	11.1	11.2	11.2	11.2
	10	11.6	22.2	34.2	40.8	46.4	50.6	67.4	80.9	90.6	96.1
653760	2	4.6	7.2	10.3	12.2	12.8	12.9	12.9	12.9	12.9	12.9
	10	10.5	19.8	29.5	35.3	40.0	42.5	50.1	61.8	77.3	89.3
653800	2	11.3	19.7	25.4	27.5	28.2	28.3	28.3	28.3	28.3	28.3
	10	15.9	30.7	50.0	60.9	70.1	75.2	86.5	92.4	96.0	97.9
653870	2	3.5	5.0	6.6	6.8	6.9	6.9	6.9	6.9	6.9	6.9
	10	9.0	17.5	28.3	33.9	38.0	40.4	47.7	54.9	63.1	70.3
654720	2	5.5	8.3	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	10	14.7	27.6	41.8	48.9	54.5	57.7	65.9	71.6	75.6	78.5
655010	2	11.7	23.2	39.0	45.5	49.2	49.9	50.3	50.3	50.3	50.3
	10	12.3	23.9	40.8	51.4	61.4	65.5	75.7	80.6	83.2	86.4
655020	2	0.1	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	0.1	0.5	1.7	3.4	5.8	8.2	20.6	29.4	37.8	49.9
655050	2	10.7	19.6	29.4	32.4	33.4	33.5	33.6	33.6	33.6	33.6
	10	14.2	28.4	43.9	52.0	58.5	61.5	68.0	70.0	75.5	84.1
655070	2	12.3	24.5	34.6	37.7	39.0	39.3	39.3	39.3	39.3	39.3
	10	13.5	26.9	41.5	50.9	58.5	62.7	70.4	72.7	77.7	85.6
655100	2	2.9	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	10	8.3	16.2	26.1	30.3	32.3	33.6	38.9	46.2	59.6	76.0
655160	2	7.8	15.7	24.1	25.2	25.3	25.4	25.4	25.4	25.4	25.4
	10	9.4	19.8	35.2	44.0	51.2	55.5	65.7	71.9	80.1	88.4
655180	2	8.9	15.1	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
	10	25.6	43.6	60.6	67.9	72.7	74.3	76.8	81.2	87.8	93.9
655220	2	5.5	10.7	15.3	17.4	17.7	17.8	17.8	17.8	17.8	17.8
	10	8.2	15.8	25.5	32.6	38.3	41.9	51.1	62.6	77.3	89.1
655280	2	8.4	14.4	21.3	24.4	26.5	27.8	30.5	30.6	30.6	30.6
	10	14.5	27.8	43.8	52.7	59.7	63.3	74.0	86.5	96.1	99.4
655360	2	7.9	12.9	16.1	16.4	16.4	16.4	16.4	16.4	16.4	16.4
	10	12.0	22.7	35.5	43.3	49.8	53.0	60.3	68.9	81.4	91.5
655450	2	6.4	10.5	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
	10	12.7	22.8	34.6	41.9	47.7	50.6	58.4	70.8	85.5	94.9

LARS-WG Markov Model

I-25

December DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655480	2	5.7	9.3	13.2	14.6	15.2	15.3	15.4	15.4	15.4	15.5
	10	11.7	22.1	34.7	42.2	47.8	51.2	62.8	76.5	89.7	97.0
655550	2	5.3	8.8	12.0	13.4	13.7	13.7	13.7	13.7	13.7	13.7
	10	13.5	25.1	36.8	43.4	48.8	51.7	59.7	68.7	80.8	90.8
655570	2	7.2	11.5	13.6	14.5	14.7	14.7	14.7	14.7	14.7	14.7
	10	18.3	33.6	49.5	59.8	67.9	73.1	89.6	96.9	99.2	99.8
655600	2	5.8	8.8	10.5	10.6	10.6	10.6	10.6	10.6	10.6	10.6
	10	11.9	23.7	37.2	45.4	51.8	55.1	64.4	74.6	86.2	94.5
655620	2	6.0	9.2	11.2	11.3	11.3	11.3	11.3	11.3	11.3	11.3
	10	11.1	22.0	36.1	44.8	52.0	56.2	69.2	80.5	90.0	95.7
655630	2	4.9	7.8	9.5	9.6	9.6	9.6	9.6	9.6	9.6	9.6
	10	9.8	19.0	30.0	37.0	42.9	46.5	60.3	74.6	86.0	92.9
655780	2	8.3	14.4	17.6	18.6	19.0	19.3	19.6	19.6	19.7	19.8
	10	17.9	34.3	50.8	62.3	71.2	77.1	92.7	97.5	98.8	99.2
655850	2	8.4	12.8	15.2	16.5	17.4	18.0	18.4	18.5	18.5	18.5
	10	18.3	34.8	52.5	63.4	71.9	77.3	92.9	98.2	99.6	99.9
655920	2	10.2	18.5	24.5	27.3	28.9	29.7	30.3	30.5	30.6	30.6
	10	22.2	41.6	61.3	71.9	79.5	84.5	95.9	99.2	99.9	100.0
655940	2	7.5	13.2	17.0	18.5	19.3	19.5	19.7	19.7	19.7	19.7
	10	18.0	33.6	49.7	59.9	68.4	74.1	89.4	94.6	96.5	97.5
655990	2	8.8	14.7	18.3	19.7	20.5	20.9	21.1	21.1	21.1	21.1
	10	17.4	32.5	49.8	61.1	70.4	76.1	90.6	94.8	96.1	97.1

Appendix J: Domestic Rainwater Harvesting Reliabilities Using the Conditioned 1st-Order Markov Model

Conditioned 1st-Order Markov Model J-2
January DRWH Reliability (%)
per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
653060	2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
	10	0.1	0.2	0.3	0.4	0.4	0.5	0.8	1.0	1.2	1.2
653190	2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	10	0.1	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	2.4
653300	2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.6	1.0	1.4	1.6	1.8	1.9	2.1	2.1	2.4	3.3
653350	2	0.5	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	10	0.9	1.6	2.6	3.2	3.9	4.2	4.8	4.8	4.9	5.9
653380	2	0.6	1.1	1.7	2.1	2.4	2.6	2.8	2.8	2.8	2.8
	10	0.9	1.7	3.4	4.9	6.9	8.1	12.6	16.1	19.2	24.8
653440	2	1.2	2.1	3.0	3.4	3.7	3.9	4.3	4.5	4.6	4.6
	10	2.0	3.6	6.3	8.5	11.1	12.6	17.4	21.0	24.9	31.7
653520	2	0.2	0.3	0.5	0.6	0.7	0.7	0.7	0.7	0.8	0.8
	10	0.3	0.6	1.0	1.3	1.8	2.0	3.0	3.6	4.4	5.9
653550	2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.2	0.4	0.7	1.0	1.4	1.6	2.0	2.2	3.2	7.4
653570	2	0.2	0.4	0.7	0.8	1.0	1.0	1.1	1.1	1.1	1.1
	10	0.5	0.9	1.5	1.9	2.5	2.7	3.5	3.8	4.0	5.2
653610	2	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	10	1.0	1.8	2.7	3.3	3.8	4.0	4.4	4.4	5.2	7.9
653760	2	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8
	10	1.2	1.9	2.9	3.6	4.2	4.5	5.5	6.5	7.3	9.0
653800	2	0.6	1.1	1.6	1.9	2.0	2.1	2.1	2.1	2.1	2.1
	10	1.2	2.2	3.8	5.3	7.1	8.2	11.8	14.6	16.9	20.4
653870	2	0.6	0.9	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
	10	1.8	3.1	4.8	6.0	7.0	7.5	8.7	9.4	9.8	10.5
654720	2	0.5	0.7	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10	1.2	2.1	3.5	4.5	5.6	6.3	8.1	9.2	9.8	10.9
655010	2	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4
	10	0.1	0.2	0.4	0.5	0.8	1.0	2.2	3.8	5.1	5.8
655020	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
655030	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.0	0.0	0.0	0.1	0.2	0.2	0.5	0.8	1.0	1.5
655050	2	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
	10	0.0	0.0	0.1	0.2	0.5	0.6	1.6	2.9	3.7	4.2
655070	2	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3
	10	0.0	0.0	0.1	0.2	0.4	0.5	1.5	2.7	3.6	4.0
655100	2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10	0.3	0.5	0.9	1.1	1.4	1.5	1.7	1.8	2.0	2.6
655160	2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
	10	0.3	0.4	0.6	0.6	0.7	0.7	0.9	1.2	1.4	1.8
655180	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	0.0	0.0	0.1	0.2	0.4	0.5	1.0	1.3	1.4	1.6
655220	2	0.5	0.7	1.1	1.3	1.4	1.5	1.6	1.6	1.7	1.7
	10	0.8	1.2	2.0	2.7	3.4	3.9	5.1	5.9	6.4	7.2
655280	2	0.6	0.9	1.1	1.2	1.3	1.4	2.0	2.7	3.2	3.4
	10	1.6	2.7	4.1	5.1	6.2	6.7	8.4	10.1	12.3	17.4
655360	2	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	10	0.8	1.4	2.1	2.6	3.1	3.4	4.3	5.0	5.7	7.9

Conditioned 1st-Order Markov Model J-3
January DRWH Reliability (%)
per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		0.7	1.2	1.8	2.1	2.2	2.3	2.3	2.3	2.3	2.3
	10		1.0	1.9	3.4	4.7	6.1	6.9	8.9	9.4	10.3	13.7
655480	2		0.7	1.1	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7
	10		1.2	2.2	3.8	5.3	7.0	8.0	11.3	14.0	17.4	24.8
655550	2		1.2	2.0	2.8	3.2	3.4	3.4	3.5	3.5	3.5	3.5
	10		1.8	3.4	5.9	8.0	10.3	11.6	15.0	16.6	18.0	21.1
655570	2		1.9	2.9	3.6	3.8	3.9	4.0	4.0	4.0	4.0	4.0
	10		4.4	7.6	12.2	15.8	19.4	21.4	28.1	36.5	50.9	67.6
655600	2		0.4	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	10		2.0	3.4	5.2	6.5	7.9	8.8	12.4	15.4	18.5	25.0
655620	2		0.9	1.4	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	10		1.9	3.5	6.1	8.0	9.9	10.9	13.9	15.8	19.0	25.2
655630	2		0.9	1.5	2.0	2.2	2.4	2.4	2.5	2.5	2.5	2.5
	10		1.8	3.4	5.7	7.5	9.4	10.4	13.0	14.3	16.9	22.9
655780	2		1.7	2.8	3.6	3.9	4.1	4.1	4.5	5.0	5.3	5.4
	10		3.8	6.9	11.5	15.6	20.3	23.4	37.0	53.8	70.1	81.8
655850	2		1.6	2.4	3.0	3.3	3.4	3.5	4.0	4.7	5.2	5.4
	10		3.9	7.0	11.7	15.5	19.6	22.2	33.7	50.6	69.8	85.0
655920	2		2.5	4.1	5.6	6.4	6.9	7.2	7.7	7.7	7.7	7.7
	10		7.3	12.8	19.9	25.7	31.9	36.2	56.0	74.8	88.1	95.7
655940	2		0.9	1.3	1.7	1.8	2.0	2.0	2.2	2.3	2.3	2.3
	10		2.6	4.9	8.3	11.2	14.4	16.6	27.6	42.5	57.4	68.4
655990	2		0.7	1.1	1.4	1.6	1.7	1.8	1.9	1.9	1.9	1.9
	10		2.0	3.7	6.3	8.5	11.2	12.9	21.2	31.8	42.3	50.2

Conditioned 1st-Order Markov Model J-4
 February DRWH Reliability (%)
 per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		0.5	0.8	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.32
	10		0.7	1.3	2.4	3.2	4.0	4.4	5.1	5.3	5.3	5.3
653190	2		0.3	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.59
	10		0.9	1.5	2.3	2.7	3.2	3.5	4.0	4.3	4.4	4.49
653300	2		0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.52
	10		1.0	1.7	2.5	3.0	3.5	3.7	4.2	4.5	4.6	4.63
653350	2		1.6	2.6	3.6	4.2	4.6	4.8	4.9	4.9	4.9	4.92
	10		3.1	5.3	8.5	10.8	13.2	14.5	17.5	18.2	18.4	18.4
653380	2		1.6	2.3	2.7	2.9	3.0	3.1	3.3	3.5	3.5	3.53
	10		4.2	7.1	11.0	13.4	15.6	16.6	19.5	21.2	22.6	24.1
653440	2		2.1	3.4	4.7	5.3	5.6	5.7	5.7	5.7	5.7	5.75
	10		4.0	7.0	11.4	14.8	18.4	20.4	25.6	28.0	29.7	31.7
653520	2		0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.29
	10		0.5	0.8	1.3	1.5	1.8	1.9	2.4	2.9	3.3	3.44
653550	2		1.0	1.6	2.2	2.5	2.8	2.9	3.1	3.2	3.2	3.15
	10		1.8	3.3	5.5	7.0	8.7	9.5	11.5	12.0	12.0	12.1
653570	2		0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
	10		0.6	1.1	1.7	2.2	2.7	2.9	3.7	4.4	5.0	5.2
653610	2		0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.48
	10		0.9	1.6	2.6	3.2	3.8	4.0	4.6	4.8	4.9	4.88
653760	2		1.0	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.54
	10		3.2	5.4	8.0	9.6	10.9	11.3	12.1	12.2	12.4	12.8
653800	2		1.8	2.6	3.4	3.9	4.3	4.6	5.0	5.0	5.0	4.99
	10		5.2	8.8	13.2	15.9	18.3	19.5	22.3	23.4	24.2	25.1
653870	2		0.9	1.5	2.2	2.7	3.0	3.1	3.2	3.2	3.2	3.24
	10		2.7	4.6	6.9	8.5	10.0	10.8	12.9	13.4	13.6	13.7
654720	2		0.9	1.6	2.3	2.6	2.8	2.8	2.9	2.9	2.9	2.86
	10		2.8	4.7	6.9	8.5	10.2	11.1	13.3	13.9	14.1	14.3
655010	2		0.3	0.5	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.82
	10		0.4	0.7	1.3	1.8	2.3	2.5	3.1	3.1	3.3	3.91
655020	2		0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.56
	10		0.1	0.3	0.5	0.7	0.9	1.0	1.4	1.4	1.4	1.44
655030	2		0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.32
	10		0.3	0.5	0.8	1.0	1.2	1.3	1.6	1.6	1.6	1.62
655050	2		0.3	0.5	0.7	0.9	1.0	1.0	1.1	1.1	1.1	1.07
	10		0.5	0.9	1.4	1.7	2.2	2.4	2.9	3.1	3.2	3.48
655070	2		0.3	0.5	0.7	0.8	0.9	0.9	1.0	1.0	1.0	0.95
	10		0.4	0.8	1.3	1.8	2.3	2.5	3.2	3.3	3.4	3.77
655100	2		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42
	10		0.6	1.0	1.6	1.9	2.4	2.6	3.1	3.3	3.3	3.32
655160	2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
	10		0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
655180	2		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.09
	10		0.4	0.6	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1
655220	2		0.3	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.82
	10		0.8	1.3	2.0	2.6	3.3	3.7	5.1	6.4	7.1	7.44
655280	2		0.5	0.8	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.41
	10		0.9	1.8	3.1	4.0	5.0	5.5	6.7	7.2	7.7	8.79
655360	2		1.5	2.4	3.3	3.6	3.8	3.8	3.8	3.8	3.8	3.8
	10		2.4	4.3	7.4	9.6	12.0	13.1	15.4	15.8	15.9	16

Conditioned 1st-Order Markov Model J-5

February DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		1.5	2.4	3.3	3.9	4.3	4.5	4.8	4.8	4.8	4.77
	10		3.8	6.4	9.6	11.7	13.9	15.1	18.7	20.4	21.1	21.4
655480	2		1.8	2.6	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.88
	10		5.2	8.9	13.3	16.1	18.4	19.4	21.5	22.4	23.0	24.3
655550	2		1.6	2.4	3.0	3.3	3.4	3.4	3.5	3.5	3.5	3.48
	10		2.8	5.0	8.5	11.0	13.7	15.1	19.1	21.4	22.4	23
655570	2		4.3	6.5	8.1	8.9	9.5	9.8	10.4	10.5	10.5	10.5
	10		10.2	17.3	26.4	32.2	37.2	39.7	45.2	47.1	49.9	55.6
655600	2		3.7	5.7	7.1	7.5	7.7	7.7	7.7	7.7	7.7	7.73
	10		7.4	13.2	21.0	26.1	30.3	32.2	35.3	35.6	36.1	37.2
655620	2		2.2	3.0	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.41
	10		6.2	10.8	16.6	20.2	22.9	24.1	26.3	26.9	27.3	28.2
655630	2		1.5	2.1	2.6	2.7	2.8	2.8	2.9	3.0	3.0	2.99
	10		4.3	7.3	11.2	13.6	15.8	16.9	19.8	21.2	22.0	22.8
655780	2		2.0	2.8	3.5	3.8	4.0	4.2	4.5	4.5	4.6	4.77
	10		6.5	10.9	16.1	19.5	22.5	24.1	28.5	32.1	39.7	51.7
655850	2		3.8	6.2	8.1	8.8	9.1	9.2	9.3	9.3	9.4	9.69
	10		8.1	14.3	22.2	27.5	31.8	34.1	38.9	41.3	47.4	58.7
655920	2		3.3	5.1	6.1	6.4	6.5	6.6	6.6	6.6	6.6	6.63
	10		7.3	13.1	20.7	26.0	30.7	33.2	40.2	48.0	61.4	76.5
655940	2		0.6	0.9	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.38
	10		2.6	4.2	6.1	7.3	8.3	8.8	10.1	11.4	16.5	26.5
655990	2		2.0	2.9	3.5	3.8	3.9	4.0	4.1	4.1	4.2	4.15
	10		5.0	8.7	13.5	16.6	19.3	20.5	23.0	23.8	26.4	31

Conditioned 1st-Order Markov Model J-6

March DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		0.7	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.25
	10		2.0	3.4	5.3	6.5	7.7	8.3	9.6	10.4	10.6	10.7
653190	2		1.3	1.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.34
	10		4.1	6.8	10.0	12.0	13.8	14.6	16.1	16.3	16.4	16.4
653300	2		2.3	3.6	4.4	4.6	4.7	4.7	4.7	4.7	4.7	4.72
	10		5.8	9.8	15.0	18.4	21.4	22.8	25.5	25.8	25.8	25.9
653350	2		5.1	7.9	9.8	10.5	10.8	10.9	11.0	11.1	11.1	11.1
	10		9.6	16.9	26.7	33.4	39.2	42.2	48.9	51.4	52.1	52.3
653380	2		5.2	7.8	9.2	9.5	9.6	9.6	9.6	9.6	9.6	9.65
	10		11.0	19.7	30.8	37.7	43.3	46.1	51.1	52.0	52.6	53.2
653440	2		5.3	8.7	11.2	12.2	12.5	12.6	12.7	12.7	12.7	12.7
	10		9.7	17.2	27.5	34.8	41.2	44.7	53.1	55.8	56.7	57.3
653520	2		1.5	2.6	3.8	4.5	5.0	5.2	5.5	5.5	5.5	5.51
	10		3.0	5.1	8.0	10.2	12.4	13.6	16.6	17.1	17.2	17.3
653550	2		2.1	3.0	3.6	3.9	4.1	4.2	4.4	4.5	4.5	4.55
	10		5.7	10.0	15.3	18.6	21.4	22.8	26.2	27.9	28.7	29
653570	2		1.2	1.7	2.3	2.6	2.8	3.0	3.3	3.3	3.3	3.32
	10		4.2	7.0	10.2	12.1	13.7	14.4	16.1	16.5	16.6	16.9
653610	2		2.6	3.6	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.18
	10		6.4	11.1	17.1	20.7	23.6	24.9	26.7	26.8	26.9	26.9
653760	2		3.1	5.0	6.3	6.8	7.1	7.1	7.2	7.2	7.2	7.15
	10		7.5	13.0	19.7	24.1	27.9	29.8	33.5	34.1	34.2	34.2
653800	2		4.1	6.3	7.7	8.1	8.3	8.5	9.1	9.5	9.8	9.81
	10		9.5	16.5	25.5	31.1	35.7	37.9	43.0	45.0	45.9	46.2
653870	2		3.7	6.0	8.1	9.1	9.7	9.9	10.2	10.3	10.3	10.3
	10		8.2	14.0	21.6	26.8	31.5	34.1	40.4	42.4	43.0	43.2
654720	2		2.6	4.1	5.2	5.5	5.6	5.7	5.7	5.7	5.7	5.69
	10		5.5	9.6	15.2	19.3	23.0	24.9	29.7	31.5	32.1	32.2
655010	2		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	10		0.8	1.3	1.9	2.4	2.8	3.0	3.6	4.1	4.3	4.41
655020	2		0.5	0.7	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.18
	10		1.2	2.0	3.2	4.0	4.8	5.1	6.0	6.6	6.8	6.92
655030	2		0.6	1.0	1.5	1.9	2.1	2.2	2.3	2.3	2.3	2.33
	10		1.6	2.7	3.9	4.8	5.8	6.4	7.9	8.3	8.4	8.38
655050	2		0.5	0.9	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.46
	10		2.5	4.0	5.5	6.4	7.2	7.7	9.2	10.2	10.6	10.7
655070	2		1.5	2.7	4.1	5.0	5.8	6.1	6.7	6.8	6.8	6.8
	10		3.0	4.9	7.5	9.6	11.9	13.1	16.5	17.7	17.9	18
655100	2		1.1	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.66
	10		3.4	5.7	8.5	10.1	11.3	11.9	12.8	12.9	12.9	13
655160	2		0.5	0.9	1.3	1.5	1.7	1.9	2.0	2.0	2.0	1.99
	10		2.2	3.4	4.8	5.5	6.3	6.7	7.8	8.0	8.0	8.03
655180	2		1.1	1.8	2.4	2.8	3.0	3.1	3.2	3.2	3.2	3.19
	10		3.6	5.9	8.4	10.0	11.5	12.3	14.0	14.3	14.3	14.3
655220	2		2.5	3.8	4.6	4.7	4.8	4.8	4.8	4.8	4.8	4.8
	10		5.1	8.7	13.7	17.2	20.4	21.9	24.8	25.2	25.6	25.9
655280	2		1.4	2.1	2.6	3.0	3.3	3.5	3.9	3.9	3.9	3.91
	10		4.1	7.0	10.5	12.8	14.7	15.7	17.7	18.4	18.5	18.6
655360	2		2.5	4.1	5.6	6.2	6.5	6.6	6.7	6.7	6.7	6.66
	10		6.3	10.8	16.6	20.7	24.7	26.8	32.3	34.4	34.9	35

Conditioned 1st-Order Markov Model J-7

March DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		3.9	6.4	8.3	9.0	9.4	9.5	9.7	9.7	9.7	9.71
	10		7.7	13.6	21.7	27.3	32.5	35.3	41.8	44.3	45.5	46
655480	2		7.1	11.5	15.1	16.8	17.7	18.2	18.6	18.7	18.7	18.7
	10		15.5	26.8	40.5	48.8	55.2	58.5	63.9	64.4	64.5	64.6
655550	2		4.5	7.2	10.0	11.6	12.7	13.3	14.2	14.3	14.3	14.3
	10		10.2	17.8	27.5	33.8	39.1	41.9	48.3	49.9	50.4	50.8
655570	2		8.2	12.8	15.6	17.0	18.0	18.7	20.5	21.0	21.1	21.1
	10		20.0	33.3	48.6	57.6	64.4	67.8	75.2	77.3	78.0	79
655600	2		5.7	9.1	11.3	11.9	12.1	12.1	12.2	12.2	12.2	12.2
	10		12.8	22.8	35.3	43.3	49.8	53.5	61.9	63.9	64.2	64.3
655620	2		6.3	10.3	12.8	13.5	13.7	13.7	13.7	13.8	13.8	13.8
	10		13.7	23.7	36.0	44.0	50.3	53.6	59.4	59.9	60.0	60.1
655630	2		4.6	6.5	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2
	10		13.4	23.0	33.9	40.2	44.7	46.9	50.9	51.6	51.9	52.2
655780	2		5.4	9.0	11.9	13.0	13.5	13.6	13.9	14.1	14.1	14.2
	10		12.9	22.0	33.1	40.3	46.3	49.6	56.2	57.6	58.8	61
655850	2		6.4	10.2	12.7	13.6	14.1	14.3	14.6	14.6	14.6	14.6
	10		14.3	25.4	38.8	47.3	54.0	57.9	67.2	69.6	70.6	72.2
655920	2		3.9	6.2	8.0	8.7	9.2	9.4	9.6	9.6	9.6	9.6
	10		10.5	17.9	27.0	33.1	38.3	41.4	49.3	52.6	56.7	63.3
655940	2		2.9	4.4	5.6	6.1	6.2	6.3	6.3	6.3	6.3	6.31
	10		6.2	10.8	17.0	21.1	24.7	26.4	29.8	30.6	30.9	31.4
655990	2		2.6	4.1	5.2	5.6	5.7	5.8	5.9	6.0	6.0	5.98
	10		6.4	11.0	17.0	21.3	25.3	27.5	32.8	34.4	35.1	35.8

Conditioned 1st-Order Markov Model J-8

April DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		2.4	3.7	4.7	5.1	5.3	5.3	5.4	5.4	5.4	5.37
	10		6.5	11.0	16.7	20.4	23.5	25.0	27.9	28.5	28.7	28.8
653190	2		6.7	11.0	13.8	14.7	15.0	15.1	15.2	15.2	15.2	15.2
	10		15.1	26.0	38.5	46.1	51.9	54.8	59.9	60.5	60.6	60.6
653300	2		5.6	9.0	11.6	12.5	12.9	13.0	13.0	13.0	13.0	13
	10		11.0	19.4	30.7	38.2	44.5	47.8	55.2	56.6	56.8	56.9
653350	2		9.0	14.6	18.2	19.3	19.7	19.8	19.9	19.9	19.9	19.9
	10		18.2	31.8	48.1	58.1	65.7	69.7	78.2	80.4	81.1	81.3
653380	2		9.7	15.8	19.5	20.6	21.0	21.1	21.1	21.1	21.1	21.1
	10		20.0	35.3	52.8	62.9	70.1	73.8	81.5	82.8	83.0	83.2
653440	2		10.0	16.3	21.2	23.5	24.8	25.5	26.8	26.9	26.9	26.9
	10		18.9	32.7	49.8	60.1	68.0	72.1	81.5	83.9	84.7	85
653520	2		3.0	4.3	5.1	5.3	5.5	5.6	6.0	6.1	6.1	6.11
	10		7.6	13.2	20.2	24.6	28.3	30.2	35.1	38.4	39.8	40.1
653550	2		5.7	8.7	10.3	10.6	10.7	10.7	10.7	10.7	10.7	10.7
	10		12.9	23.0	34.9	41.8	47.0	49.6	54.0	55.2	55.9	56.3
653570	2		4.2	6.1	7.0	7.2	7.3	7.4	7.7	7.9	8.0	8.04
	10		12.9	21.9	32.0	37.5	41.4	43.3	46.7	47.9	48.4	48.5
653610	2		5.3	8.6	10.8	11.5	11.8	11.8	11.9	11.9	11.9	11.9
	10		14.4	25.0	37.1	44.4	49.9	52.9	59.0	59.7	59.7	59.7
653760	2		7.5	12.5	15.9	17.0	17.5	17.6	17.7	17.7	17.7	17.7
	10		16.2	28.1	42.1	51.0	58.0	61.7	69.6	71.3	71.6	71.6
653800	2		7.3	12.0	15.8	17.2	17.7	17.9	18.1	18.1	18.2	18.4
	10		14.3	25.6	40.4	49.9	57.5	61.7	70.9	72.9	73.7	74.1
653870	2		6.2	10.6	14.7	16.8	18.1	18.7	19.6	19.6	19.6	19.6
	10		13.8	23.7	36.0	44.1	51.1	55.0	65.2	68.9	70.0	70.3
654720	2		4.9	8.6	12.6	14.8	16.3	16.9	17.6	17.7	17.7	17.7
	10		9.7	17.0	26.9	33.7	40.1	43.6	52.4	54.8	55.6	55.9
655010	2		0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15
	10		1.1	1.7	2.3	2.5	2.7	2.7	2.9	3.0	3.0	3.12
655020	2		0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.73
	10		2.0	3.2	4.7	5.6	6.3	6.6	7.4	7.9	8.2	8.34
655030	2		2.3	3.2	3.8	3.9	4.0	4.1	4.2	4.3	4.3	4.31
	10		4.9	8.7	13.9	17.2	20.1	21.4	24.3	25.9	26.7	26.9
655050	2		1.3	1.9	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.55
	10		3.7	6.5	9.9	12.0	13.7	14.5	16.4	17.2	17.7	18
655070	2		1.8	2.6	3.2	3.4	3.7	3.9	4.6	4.9	5.0	4.99
	10		5.4	9.3	14.0	17.0	19.6	21.1	26.2	30.7	33.1	33.8
655100	2		3.3	5.1	6.1	6.3	6.3	6.3	6.3	6.3	6.3	6.32
	10		8.5	14.7	22.2	27.1	30.9	32.8	36.2	36.6	36.6	36.6
655160	2		2.7	4.3	5.6	6.2	6.7	6.9	7.3	7.3	7.3	7.35
	10		8.0	13.5	20.0	24.0	27.2	28.9	33.0	34.5	35.1	35.2
655180	2		2.9	4.5	5.5	5.8	6.0	6.1	6.2	6.3	6.3	6.29
	10		6.9	12.1	18.2	22.4	25.9	27.8	32.2	34.0	34.7	35
655220	2		5.0	7.8	9.8	10.3	10.5	10.6	10.6	10.6	10.6	10.6
	10		10.9	19.1	29.7	36.6	42.5	45.7	52.7	54.2	54.4	54.4
655280	2		6.0	9.2	10.9	11.3	11.5	11.6	11.9	12.1	12.2	12.2
	10		14.3	24.9	37.0	44.3	49.8	52.6	57.2	58.3	58.8	58.9
655360	2		6.0	9.7	12.5	13.4	13.8	13.9	14.0	14.0	14.1	14.1
	10		13.6	23.9	36.6	44.4	50.7	54.1	62.1	64.6	65.3	65.5

Conditioned 1st-Order Markov Model J-9

April DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	8.1	12.6	15.9	17.3	18.1	18.5	18.9	18.9	18.9	18.9
	10	17.1	29.9	45.6	55.2	62.4	66.1	74.4	76.9	77.7	78
655480	2	9.9	17.1	23.7	26.6	28.2	29.0	30.1	30.2	30.2	30.2
	10	18.7	33.1	50.5	61.1	69.4	74.0	84.8	87.5	87.9	88
655550	2	9.4	14.9	18.9	20.7	22.0	22.9	25.0	25.7	25.8	25.8
	10	17.9	31.3	47.6	57.1	64.2	67.7	75.9	79.2	80.2	80.4
655570	2	10.7	17.5	22.3	24.4	25.7	26.5	29.0	30.5	30.9	31
	10	23.0	39.7	57.7	67.1	73.4	76.8	85.1	88.7	89.8	90.2
655600	2	9.3	14.6	17.9	18.9	19.4	19.6	20.0	20.0	20.0	20
	10	18.5	32.9	49.9	59.8	66.9	70.6	79.2	82.1	82.8	82.9
655620	2	9.3	14.8	18.6	20.0	20.7	21.0	21.4	21.4	21.4	21.4
	10	18.3	32.0	48.7	58.7	66.4	70.5	80.3	82.9	83.2	83.3
655630	2	8.1	12.3	14.5	15.1	15.4	15.5	15.5	15.5	15.5	15.5
	10	18.6	32.6	48.4	57.3	63.7	66.9	73.4	74.5	74.7	74.8
655780	2	10.0	16.7	21.6	23.6	24.5	25.0	25.5	25.6	25.6	25.6
	10	18.1	32.4	49.2	59.4	67.0	71.3	81.4	84.2	84.8	85.2
655850	2	8.5	14.5	18.9	20.6	21.4	21.7	22.1	22.2	22.2	22.2
	10	20.0	34.8	50.7	59.9	66.3	70.2	79.9	83.5	84.6	85.4
655920	2	8.6	14.5	18.7	20.4	21.3	21.7	22.3	22.3	22.3	22.3
	10	17.7	30.8	45.9	55.4	62.8	66.9	75.9	78.6	79.8	81.5
655940	2	6.3	10.4	13.7	14.9	15.4	15.5	15.7	15.7	15.7	15.7
	10	12.1	21.4	33.6	41.8	48.6	52.3	60.5	62.5	62.9	63.1
655990	2	8.0	13.3	17.9	19.7	20.8	21.1	21.6	21.6	21.6	21.6
	10	14.2	24.9	38.8	47.9	55.7	59.7	68.2	70.1	70.5	70.8

Conditioned 1st-Order Markov Model J-10

May DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		7.8	12.3	14.9	15.6	15.8	15.9	15.9	15.9	15.9	15.9
	10		16.0	28.1	42.2	50.5	56.5	59.4	65.0	66.3	66.7	66.8
653190	2		7.9	12.6	15.1	15.8	16.1	16.2	16.3	16.3	16.3	16.3
	10		17.5	31.0	46.6	56.4	64.1	68.5	79.7	82.5	82.9	82.9
653300	2		9.7	14.7	17.3	18.0	18.3	18.5	18.8	18.8	18.8	18.8
	10		22.1	38.9	57.0	66.8	73.2	76.6	83.5	85.3	85.6	85.7
653350	2		8.6	13.6	16.6	17.4	17.7	17.8	17.9	17.9	17.9	17.9
	10		19.3	34.0	51.1	61.6	69.7	74.5	86.6	90.3	91.2	91.5
653380	2		9.8	15.7	19.2	20.4	20.8	21.0	21.1	21.2	21.2	21.2
	10		21.4	37.1	55.0	65.9	73.9	78.6	89.6	92.4	92.9	92.9
653440	2		13.6	23.9	31.6	34.9	36.7	37.6	39.9	40.8	41.0	41
	10		24.6	43.6	64.1	75.5	83.1	87.2	94.9	96.5	96.8	97
653520	2		6.9	10.6	12.6	13.0	13.1	13.1	13.1	13.1	13.1	13.1
	10		14.5	25.4	38.7	47.0	53.6	56.9	63.4	65.0	66.2	66.9
653550	2		9.0	13.4	14.9	15.2	15.2	15.3	15.3	15.3	15.3	15.3
	10		22.1	38.5	55.2	64.5	70.6	74.0	81.0	82.3	82.6	82.8
653570	2		7.6	12.2	15.3	16.7	17.4	17.8	18.3	18.4	18.4	18.4
	10		17.8	30.5	45.4	54.7	61.9	65.6	73.3	74.7	75.1	75.3
653610	2		7.9	12.2	14.5	15.3	15.8	16.0	16.2	16.3	16.3	16.3
	10		20.9	35.8	51.5	60.5	66.8	70.4	79.2	81.5	81.8	81.9
653760	2		9.2	14.8	18.8	20.6	21.6	22.2	22.9	22.9	22.9	22.9
	10		20.2	34.8	51.8	62.1	70.1	74.5	85.3	88.5	89.3	89.4
653800	2		10.4	17.7	23.3	25.5	26.6	27.0	27.3	27.3	27.3	27.3
	10		18.1	32.1	49.6	60.9	70.0	74.9	86.4	89.4	90.2	90.5
653870	2		9.9	16.5	21.6	24.2	25.8	26.7	28.6	28.9	28.9	28.9
	10		21.4	37.5	55.2	65.6	73.3	77.5	87.0	90.0	90.9	91.2
654720	2		6.9	11.0	13.8	15.1	15.8	16.2	17.3	17.6	17.6	17.6
	10		12.9	22.7	35.4	44.0	51.6	55.8	68.5	74.5	76.6	77.1
655010	2		1.5	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.44
	10		4.5	7.6	11.2	13.4	15.1	15.8	17.0	17.0	17.0	17
655020	2		2.4	3.8	5.2	5.9	6.4	6.7	7.0	7.0	7.0	7.02
	10		7.8	13.2	19.3	23.0	26.0	27.5	30.7	31.0	31.1	31.2
655030	2		4.5	6.4	7.6	8.1	8.5	8.6	8.9	9.0	9.0	8.96
	10		13.1	22.7	34.0	40.5	45.2	47.6	52.2	53.1	53.6	54
655050	2		4.4	6.6	8.0	8.5	8.7	8.7	8.8	8.8	8.8	8.82
	10		11.1	19.2	28.8	34.8	39.4	41.7	46.1	46.9	47.2	47.3
655070	2		5.4	8.6	11.1	12.3	12.9	13.3	13.9	13.9	14.0	14
	10		13.6	23.6	35.5	42.6	47.9	50.7	55.7	56.9	58.5	59.9
655100	2		6.1	9.3	11.2	11.7	11.9	12.0	12.0	12.0	12.0	12
	10		15.5	27.3	40.9	49.0	55.1	58.4	65.3	66.5	66.7	66.7
655160	2		5.6	8.6	10.1	10.5	10.7	10.8	11.0	11.2	11.2	11.2
	10		14.2	24.7	36.9	44.2	49.7	52.7	59.4	61.7	62.5	62.9
655180	2		5.2	7.6	8.6	8.8	8.8	8.8	8.9	8.9	8.9	8.88
	10		13.8	24.1	36.2	43.4	48.7	51.4	57.4	59.2	59.9	60.2
655220	2		7.5	12.0	14.7	15.7	16.1	16.2	16.4	16.5	16.5	16.5
	10		15.7	27.9	42.9	52.5	60.1	64.2	73.9	76.4	76.9	77
655280	2		7.4	11.5	14.1	14.9	15.1	15.2	15.2	15.2	15.2	15.3
	10		16.2	29.0	44.2	53.3	60.1	64.0	73.1	75.5	76.2	76.5
655360	2		9.4	14.9	18.2	19.3	19.8	20.0	20.4	20.4	20.4	20.4
	10		20.0	35.1	52.5	62.7	70.2	74.3	83.4	85.9	86.6	86.7

Conditioned 1st-Order Markov Model J-11

May DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		11.4	18.5	22.8	24.2	24.9	25.2	25.9	25.9	25.9	25.9
	10		21.2	37.5	56.3	67.5	75.5	79.8	89.3	91.6	92.2	92.4
655480	2		9.9	16.2	20.3	22.0	23.0	23.6	24.7	25.0	25.0	25
	10		21.2	37.0	55.0	66.0	74.2	79.0	91.0	94.9	95.9	96.2
655550	2		7.3	11.5	14.4	15.6	16.2	16.7	18.7	20.1	20.6	20.7
	10		16.7	29.3	45.2	55.5	63.9	68.9	82.4	87.1	88.8	89.4
655570	2		12.8	20.7	24.8	26.4	27.2	27.8	29.4	30.1	30.8	31.3
	10		30.5	50.3	69.3	78.9	85.0	88.0	94.4	95.9	96.6	96.9
655600	2		9.1	14.3	17.2	18.0	18.3	18.5	19.0	19.4	19.5	19.6
	10		22.4	39.2	57.4	67.8	75.0	79.2	89.0	91.7	92.4	92.6
655620	2		11.3	18.5	22.7	24.0	24.6	24.8	25.4	25.5	25.5	25.5
	10		22.9	40.3	59.3	70.3	78.0	82.2	91.1	93.4	94.1	94.3
655630	2		10.2	16.9	20.9	22.1	22.4	22.6	22.8	22.8	22.8	22.8
	10		22.3	39.1	57.7	68.5	76.0	80.3	89.4	91.0	91.3	91.4
655780	2		16.9	30.0	38.8	42.8	44.8	45.9	47.1	47.2	47.2	47.2
	10		30.9	52.8	72.7	82.6	88.5	91.4	96.6	97.6	97.8	98
655850	2		16.0	28.7	37.1	40.5	42.1	42.8	43.5	43.5	43.6	43.6
	10		30.9	53.1	72.9	82.5	87.8	90.6	95.5	96.6	97.0	97.2
655920	2		20.2	36.5	46.6	50.9	53.0	53.9	54.7	54.8	54.8	54.8
	10		36.3	58.6	76.2	84.4	89.2	91.6	96.3	97.2	97.5	97.7
655940	2		13.7	23.5	30.0	32.7	34.0	34.6	35.1	35.1	35.1	35.1
	10		26.7	45.3	63.6	73.6	79.9	83.1	89.7	91.3	91.6	91.7
655990	2		16.7	28.7	36.6	39.7	41.2	41.9	42.9	43.0	43.1	43.1
	10		31.2	50.5	69.7	79.6	86.1	89.1	94.9	96.0	96.2	96.3

Conditioned 1st-Order Markov Model J-12

June DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		13.3	21.4	26.1	27.4	27.8	28.0	28.1	28.1	28.1	28.1
	10		24.7	43.8	64.6	75.9	83.0	86.4	92.3	93.0	93.1	93.2
653190	2		12.3	19.9	23.2	23.9	24.1	24.2	24.2	24.2	24.2	24.2
	10		29.0	49.1	68.5	78.5	84.6	87.8	93.8	95.4	95.9	95.9
653300	2		12.7	21.4	26.3	27.7	28.3	28.5	29.0	29.1	29.2	29.2
	10		26.9	47.0	67.1	78.1	85.0	88.7	95.2	96.2	96.5	96.5
653350	2		11.6	18.8	21.8	22.5	22.8	22.8	22.9	22.9	22.9	22.9
	10		27.1	47.0	65.8	76.0	82.5	86.1	93.5	95.7	96.5	96.7
653380	2		13.3	22.1	26.9	28.3	28.8	28.9	29.0	29.0	29.0	29
	10		26.4	46.7	67.0	77.8	84.4	88.1	95.5	97.5	98.0	98
653440	2		19.9	36.0	47.1	52.2	54.9	56.3	57.6	58.0	58.3	58.4
	10		33.5	57.4	77.8	87.6	92.9	95.6	99.3	99.7	99.8	99.8
653520	2		8.1	13.1	16.9	18.7	19.8	20.4	21.2	21.3	21.3	21.3
	10		19.6	34.2	51.1	61.3	68.9	73.2	83.2	85.2	85.6	85.8
653550	2		13.5	22.9	27.9	29.4	29.9	30.0	30.1	30.1	30.1	30.1
	10		27.3	47.6	67.0	77.7	84.2	87.8	94.2	95.2	95.4	95.4
653570	2		11.0	18.0	22.7	24.5	25.4	25.9	26.8	26.9	26.9	26.9
	10		21.8	38.4	57.6	68.9	76.7	80.9	89.9	92.0	92.3	92.4
653610	2		12.5	20.1	23.4	24.3	24.6	24.8	25.4	25.6	25.6	25.6
	10		29.9	51.6	71.6	81.5	87.1	90.0	94.7	95.7	95.9	96
653760	2		12.0	20.8	27.0	29.7	31.2	32.0	33.6	33.8	33.8	33.9
	10		26.9	45.9	65.3	75.9	82.9	86.7	94.2	96.1	96.7	96.8
653800	2		9.5	16.4	21.4	23.6	24.8	25.4	26.2	26.2	26.3	26.3
	10		22.0	37.8	55.3	65.8	73.7	78.4	90.7	94.9	96.0	96.2
653870	2		11.0	19.1	24.3	26.4	27.6	28.3	29.7	30.2	30.3	30.3
	10		22.6	40.0	58.5	69.7	77.6	82.4	93.4	96.2	96.9	97.1
654720	2		8.9	14.9	18.6	19.9	20.3	20.5	20.7	20.7	20.7	20.8
	10		16.4	30.0	45.6	56.0	64.2	69.1	81.1	85.5	87.7	88.6
655010	2		4.3	6.2	7.2	7.4	7.4	7.5	7.5	7.5	7.5	7.46
	10		11.7	20.5	30.9	37.1	41.5	43.7	47.5	47.9	47.9	47.9
655020	2		6.8	10.6	13.0	14.0	14.5	14.8	15.4	15.5	15.5	15.5
	10		16.4	28.8	43.1	51.4	57.1	60.2	66.4	68.2	68.7	68.8
655030	2		7.5	11.5	13.7	14.4	14.8	15.0	15.4	15.5	15.5	15.5
	10		20.4	35.9	52.7	61.9	68.2	71.6	77.8	79.1	79.4	79.5
655050	2		8.3	12.6	15.3	16.6	17.5	18.0	18.8	18.8	18.8	18.8
	10		19.4	34.3	51.3	60.7	67.2	70.5	77.4	78.8	79.1	79.2
655070	2		10.4	17.0	21.3	23.1	24.2	24.8	26.2	26.6	26.6	26.6
	10		22.5	38.9	57.2	67.8	75.1	79.0	86.3	87.5	87.8	88
655100	2		10.7	16.9	19.8	20.5	20.7	20.7	20.8	20.8	20.8	20.8
	10		24.0	42.3	61.6	72.2	79.0	82.6	89.1	90.3	90.5	90.5
655160	2		9.7	14.4	16.3	16.6	16.7	16.7	16.7	16.7	16.7	16.7
	10		22.7	40.1	58.6	68.7	75.2	78.7	85.3	86.7	87.1	87.3
655180	2		13.3	20.8	24.6	25.5	25.6	25.7	25.7	25.7	25.7	25.7
	10		25.5	45.1	65.9	76.4	82.6	85.4	89.7	90.3	90.5	90.6
655220	2		11.3	17.9	21.8	23.1	23.7	24.0	24.4	24.4	24.4	24.4
	10		23.9	41.9	61.7	72.7	79.8	83.6	91.2	93.0	93.3	93.3
655280	2		10.0	15.5	18.1	18.7	18.8	18.9	18.9	18.9	18.9	18.9
	10		23.5	41.0	59.9	70.4	77.4	81.2	89.0	90.9	91.4	91.6
655360	2		11.5	18.4	22.2	23.4	24.0	24.3	25.1	25.3	25.4	25.4
	10		23.3	40.8	60.6	71.8	79.7	83.9	92.9	95.1	95.6	95.8

Conditioned 1st-Order Markov Model J-13

June DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		13.2	21.6	26.6	28.3	28.8	29.0	29.1	29.1	29.1	29.1
	10		25.9	45.4	66.3	77.6	84.8	88.6	96.1	97.7	98.1	98.2
655480	2		14.5	25.1	31.9	34.5	35.8	36.4	37.1	37.2	37.3	37.3
	10		27.0	46.7	67.0	78.2	85.5	89.2	96.3	98.3	98.9	99.1
655550	2		9.6	15.2	18.3	19.2	19.6	19.8	20.0	20.1	20.5	20.9
	10		20.5	36.2	53.8	64.1	71.5	75.7	86.1	90.9	93.1	93.9
655570	2		12.7	21.4	25.6	27.1	27.7	27.9	28.1	28.3	28.5	28.7
	10		31.1	52.4	71.4	80.9	86.7	89.9	96.7	98.6	99.1	99.3
655600	2		9.2	15.6	19.8	21.7	22.7	23.3	24.2	24.3	24.3	24.5
	10		23.6	40.6	57.9	67.9	74.9	79.2	89.7	94.0	95.3	95.6
655620	2		10.3	17.0	20.8	22.3	22.9	23.3	23.6	23.6	23.6	23.6
	10		25.0	43.1	61.9	72.6	80.1	84.6	94.6	97.3	97.9	98
655630	2		10.0	15.6	18.1	19.1	19.7	20.0	20.4	20.4	20.5	20.5
	10		25.9	43.2	61.5	72.1	79.6	83.9	93.7	96.3	96.7	96.8
655780	2		23.4	43.7	57.9	64.9	68.8	70.9	73.2	73.4	73.5	73.5
	10		40.9	65.9	85.1	93.0	96.7	98.1	99.7	99.9	99.9	99.9
655850	2		23.0	43.0	56.4	63.0	66.7	68.6	70.4	70.4	70.5	70.5
	10		43.5	67.9	85.9	93.3	96.8	98.2	99.7	99.9	99.9	99.9
655920	2		22.8	42.4	56.2	63.5	68.0	70.7	74.6	74.9	74.9	74.9
	10		38.8	62.9	82.0	90.5	95.1	97.1	99.5	99.8	99.8	99.9
655940	2		18.9	35.2	45.9	51.1	54.0	55.6	58.0	58.2	58.2	58.2
	10		38.5	62.5	81.4	89.9	94.4	96.4	98.9	99.2	99.2	99.3
655990	2		19.7	36.5	48.8	54.8	58.1	59.9	61.9	62.0	62.1	62.1
	10		36.1	59.4	79.4	88.9	94.0	96.3	99.5	99.8	99.8	99.8

Conditioned 1st-Order Markov Model J-14

July DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		17.4	29.5	37.2	39.8	40.9	41.2	41.5	41.5	41.5	41.5
	10		31.6	54.5	76.2	86.2	91.9	94.7	98.8	99.4	99.4	99.4
653190	2		15.1	25.2	29.2	30.2	30.5	30.6	30.6	30.6	30.6	30.6
	10		34.7	59.3	79.4	88.5	93.3	95.7	99.1	99.5	99.6	99.6
653300	2		15.5	27.5	35.2	38.2	39.6	40.2	40.7	40.8	40.8	40.8
	10		32.0	54.1	74.3	84.5	90.7	93.9	98.8	99.5	99.6	99.6
653350	2		12.7	22.2	28.4	30.7	31.7	32.0	32.2	32.2	32.2	32.2
	10		23.2	41.0	59.9	71.9	80.7	85.8	96.1	98.3	98.8	98.9
653380	2		11.7	20.5	26.6	28.9	29.9	30.3	30.6	30.6	30.6	30.6
	10		21.6	39.2	58.8	71.1	79.8	85.1	96.5	98.8	99.2	99.3
653440	2		5.7	10.7	15.3	18.6	21.2	23.2	29.0	30.5	30.9	31.1
	10		14.3	25.5	39.1	49.8	59.9	67.1	90.9	98.9	99.8	99.8
653520	2		14.1	23.8	30.3	33.0	34.3	35.1	37.1	37.7	37.8	37.8
	10		24.8	44.4	65.0	76.0	83.0	86.8	94.0	95.7	96.1	96.2
653550	2		14.1	25.5	32.8	35.7	37.0	37.6	38.0	38.0	38.0	38
	10		28.7	50.9	70.2	80.3	86.6	90.4	97.8	99.1	99.2	99.2
653570	2		11.7	19.2	23.1	24.3	24.9	25.2	25.8	25.9	25.9	25.9
	10		29.5	51.1	70.9	80.5	86.3	89.6	96.3	97.8	98.2	98.2
653610	2		16.9	29.8	36.2	38.3	39.1	39.4	39.6	39.7	39.8	39.8
	10		38.2	64.3	83.3	91.3	95.2	97.1	99.4	99.6	99.7	99.7
653760	2		13.1	22.7	28.4	30.8	32.1	32.7	33.8	34.0	34.1	34.1
	10		31.7	52.3	71.4	81.6	88.1	91.6	98.0	99.2	99.4	99.5
653800	2		5.1	8.3	10.0	10.7	11.2	11.5	12.1	12.3	12.3	12.3
	10		13.7	24.5	37.1	46.2	54.2	59.8	79.6	90.1	94.0	95.2
653870	2		5.1	8.8	11.7	13.0	13.7	14.1	14.6	14.8	14.9	15
	10		10.4	19.0	30.4	39.4	48.3	54.6	77.7	90.9	95.2	96.3
654720	2		4.0	7.1	9.6	10.8	11.5	11.9	12.3	12.3	12.3	12.4
	10		8.5	15.5	24.6	32.1	39.7	45.1	65.9	78.3	83.4	85.4
655010	2		9.1	14.4	17.2	17.8	17.9	17.9	17.9	17.9	17.9	17.9
	10		19.1	34.7	52.9	63.2	69.9	73.5	79.8	80.6	80.7	80.7
655020	2		12.4	19.6	22.9	23.7	24.1	24.3	24.5	24.5	24.5	24.5
	10		26.3	45.5	65.6	76.0	82.4	85.7	91.4	92.4	92.7	92.8
655030	2		14.5	23.8	29.2	30.7	31.3	31.5	31.6	31.6	31.6	31.6
	10		28.6	50.7	72.3	82.2	87.9	90.8	95.4	95.9	96.1	96.2
655050	2		14.6	23.9	28.9	30.4	31.1	31.5	32.9	33.5	33.6	33.6
	10		29.7	51.2	72.5	82.6	88.2	91.0	95.4	96.1	96.2	96.3
655070	2		13.9	23.7	29.9	32.1	33.1	33.6	34.6	35.0	35.1	35.1
	10		28.6	49.7	70.2	80.2	86.1	89.5	95.9	97.2	97.4	97.4
655100	2		13.4	21.7	25.9	27.1	27.5	27.7	27.9	27.9	27.9	27.9
	10		29.3	50.9	71.9	82.2	88.4	91.6	97.2	97.9	98.1	98.1
655160	2		15.2	25.2	30.3	31.5	31.9	32.0	32.1	32.1	32.1	32.1
	10		30.3	52.9	74.1	84.1	89.7	92.5	97.1	97.7	97.9	97.9
655180	2		14.3	25.0	32.7	35.5	36.8	37.3	37.6	37.6	37.6	37.6
	10		26.3	46.7	68.0	79.5	86.8	90.8	97.4	98.2	98.3	98.3
655220	2		14.2	24.1	29.8	31.6	32.3	32.6	33.2	33.3	33.3	33.3
	10		29.2	50.9	71.9	82.4	88.8	92.2	97.8	98.7	98.9	99
655280	2		15.5	26.6	33.9	37.2	38.9	39.7	40.6	40.6	40.6	40.6
	10		34.0	56.1	76.2	85.6	91.0	93.6	97.8	98.6	98.8	98.9
655360	2		13.7	22.4	27.6	29.2	29.8	30.1	30.5	30.7	30.7	30.7
	10		25.9	45.3	66.5	78.0	85.6	89.5	97.0	98.7	99.1	99.1

Conditioned 1st-Order Markov Model J-15

July DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	6.8	10.9	13.6	14.6	15.0	15.2	15.3	15.3	15.3	15.3
	10	15.4	27.6	42.9	53.6	62.9	69.1	89.1	96.5	98.0	98.2
655480	2	14.8	25.9	32.1	34.9	36.5	37.3	39.5	40.4	40.7	40.7
	10	32.2	55.4	74.9	84.8	90.7	93.9	99.0	99.7	99.9	99.9
655550	2	8.5	14.0	18.2	20.3	21.7	22.5	23.8	23.9	23.9	24
	10	17.3	29.8	45.8	56.4	65.6	71.0	85.4	91.0	93.4	94.6
655570	2	4.7	7.6	8.9	9.4	9.7	9.8	9.9	9.9	10.0	10
	10	17.0	29.4	42.9	52.5	60.9	66.9	87.4	95.9	98.2	98.8
655600	2	6.0	9.7	11.6	12.4	13.0	13.4	15.5	16.5	16.7	16.7
	10	18.3	32.2	46.5	56.1	64.0	69.4	85.8	92.2	94.8	95.8
655620	2	5.2	8.5	10.4	11.1	11.5	11.7	12.2	12.3	12.4	12.4
	10	15.5	27.3	40.5	49.9	58.2	64.0	84.4	93.5	96.5	97.1
655630	2	5.8	10.0	13.2	14.4	15.1	15.4	16.3	16.7	16.9	16.9
	10	14.6	25.9	39.7	49.6	58.5	64.4	83.9	92.7	95.3	95.7
655780	2	5.8	11.5	17.3	21.5	25.4	28.7	39.9	43.3	43.7	43.7
	10	14.7	26.5	40.6	51.9	62.6	70.1	92.7	99.5	100.0	100
655850	2	8.9	17.7	25.7	31.0	35.2	38.6	48.7	50.7	50.7	50.7
	10	20.1	36.9	54.4	66.8	76.7	83.3	97.9	99.9	100.0	100
655920	2	8.6	17.4	25.5	31.1	35.7	39.6	52.9	57.0	57.5	57.5
	10	25.4	42.8	59.8	71.2	80.3	85.9	98.0	99.8	100.0	100
655940	2	5.8	11.3	16.7	20.3	23.0	25.0	30.0	31.2	31.4	31.4
	10	17.0	29.7	44.2	55.2	65.2	72.3	93.5	99.2	99.7	99.7
655990	2	5.7	11.0	15.9	19.1	21.8	23.8	29.6	30.9	31.0	31.1
	10	13.9	25.2	38.6	49.4	59.8	67.1	90.5	98.9	99.9	99.9

Conditioned 1st-Order Markov Model J-16

August DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		18.4	32.0	39.9	43.1	44.6	45.3	45.9	45.9	45.9	45.9
	10		34.3	59.4	80.6	90.1	94.9	97.1	99.8	100.0	100.0	100
653190	2		22.1	38.4	46.3	49.1	50.2	50.6	50.7	50.7	50.7	50.7
	10		41.6	70.4	88.9	95.2	97.9	99.0	99.9	100.0	100.0	100
653300	2		18.0	31.5	39.6	43.1	44.8	45.6	46.8	46.9	46.9	46.9
	10		33.8	57.9	78.6	88.3	93.6	96.2	99.7	99.9	100.0	100
653350	2		10.1	17.1	21.5	23.5	24.6	25.2	25.9	25.9	25.9	25.9
	10		23.8	40.5	58.2	69.1	77.3	82.4	95.0	98.6	99.4	99.5
653380	2		7.9	13.9	17.7	19.2	20.0	20.3	20.6	20.6	20.6	20.6
	10		19.9	34.3	49.8	60.4	69.2	75.1	91.6	97.7	99.3	99.6
653440	2		4.5	8.1	10.7	11.8	12.3	12.7	13.4	14.0	14.6	14.8
	10		9.9	18.1	27.9	35.3	42.0	46.6	63.6	80.1	92.8	98.3
653520	2		12.3	19.8	24.0	25.4	26.2	26.7	27.7	28.0	28.3	28.4
	10		26.7	46.7	67.4	78.8	86.1	90.2	98.0	99.2	99.4	99.4
653550	2		23.7	41.7	51.2	55.2	57.3	58.3	59.5	59.5	59.5	59.5
	10		44.2	71.8	89.5	95.3	97.5	98.4	99.7	99.9	99.9	99.9
653570	2		14.8	24.9	30.1	31.6	32.2	32.4	32.5	32.5	32.6	32.6
	10		31.0	54.4	74.9	85.0	90.6	93.7	98.7	99.5	99.6	99.7
653610	2		18.4	31.7	38.0	40.4	41.5	42.2	43.5	43.5	43.5	43.5
	10		40.7	67.1	86.0	93.6	96.9	98.5	99.9	100.0	100.0	100
653760	2		11.9	20.9	26.4	28.7	29.7	30.2	30.8	30.8	30.8	30.9
	10		27.3	47.2	66.7	77.6	84.9	89.1	97.7	99.3	99.7	99.7
653800	2		2.5	4.8	6.6	7.6	8.1	8.3	8.5	8.5	8.5	8.54
	10		10.0	17.0	24.0	29.3	34.3	37.9	52.4	67.0	80.1	87.3
653870	2		1.9	3.2	4.1	4.5	4.7	4.8	4.9	4.9	4.9	4.92
	10		7.1	12.0	17.5	21.8	25.9	28.9	42.5	58.4	74.5	85.1
654720	2		0.9	1.3	1.6	1.8	2.0	2.1	2.5	2.5	2.6	2.55
	10		4.4	7.5	10.9	13.5	15.9	17.9	27.6	40.3	53.6	63.4
655010	2		12.8	21.0	25.7	26.9	27.3	27.4	27.4	27.4	27.4	27.4
	10		24.7	44.1	64.8	76.1	83.4	87.4	94.6	95.6	95.7	95.7
655020	2		15.1	25.2	30.3	31.6	32.0	32.1	32.2	32.2	32.2	32.2
	10		31.4	55.1	76.3	86.2	91.5	94.4	98.7	99.1	99.1	99.1
655030	2		16.7	27.6	33.0	34.6	35.2	35.5	35.7	35.7	35.7	35.7
	10		33.9	58.5	79.8	89.2	94.1	96.4	99.5	99.7	99.7	99.7
655050	2		18.8	31.6	38.0	40.0	40.6	40.9	41.1	41.3	41.5	41.5
	10		36.8	62.7	83.5	91.8	95.8	97.6	99.7	99.8	99.9	99.9
655070	2		16.3	28.3	35.5	38.6	40.3	41.1	42.2	42.3	42.4	42.4
	10		35.6	60.7	81.5	90.3	94.6	96.6	99.3	99.6	99.6	99.7
655100	2		22.0	38.5	47.2	50.4	51.7	52.2	52.7	52.7	52.7	52.7
	10		40.2	67.4	87.0	94.1	97.1	98.4	99.8	99.9	99.9	99.9
655160	2		19.2	32.7	39.4	41.6	42.4	42.7	42.9	42.9	42.9	42.9
	10		39.3	65.5	85.4	93.2	96.7	98.1	99.8	99.9	99.9	99.9
655180	2		21.7	37.4	46.3	50.0	51.7	52.6	53.5	53.5	53.5	53.5
	10		39.2	64.8	84.2	91.7	95.3	97.0	99.5	99.8	99.8	99.9
655220	2		17.4	29.7	36.7	39.3	40.4	40.9	41.3	41.4	41.4	41.4
	10		34.7	59.0	80.0	89.4	94.2	96.4	99.6	99.8	99.9	99.9
655280	2		22.0	37.6	45.3	48.8	50.9	52.4	55.5	56.1	56.2	56.2
	10		46.2	72.5	90.1	95.8	98.1	99.0	99.9	100.0	100.0	100
655360	2		18.4	31.3	38.4	40.9	41.9	42.3	42.6	42.6	42.7	42.7
	10		34.8	58.0	78.4	87.6	92.8	95.2	99.1	99.7	99.8	99.9

Conditioned 1st-Order Markov Model J-17

August DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	8.5	14.5	18.8	20.5	21.2	21.4	21.7	21.7	21.7	21.7
	10	14.8	27.1	42.0	52.3	60.6	65.7	80.3	89.6	95.3	97.3
655480	2	19.5	37.1	47.9	53.0	55.6	57.0	58.6	59.2	59.7	59.9
	10	43.7	71.9	89.1	95.0	97.5	98.6	99.8	100.0	100.0	100
655550	2	9.7	15.8	19.6	21.5	22.8	23.8	26.6	27.9	28.2	28.2
	10	20.9	35.6	52.3	62.6	70.4	74.9	87.1	92.5	95.0	96.2
655570	2	5.5	9.0	10.7	11.1	11.2	11.2	11.2	11.2	11.2	11.2
	10	18.0	31.2	44.0	52.0	57.9	61.8	74.2	85.8	93.9	97.3
655600	2	8.7	14.8	18.0	18.9	19.3	19.4	19.5	19.6	19.9	20
	10	21.7	38.4	54.2	63.7	70.1	74.2	85.1	91.6	95.0	96.4
655620	2	4.1	6.5	7.9	8.7	9.2	9.5	10.2	10.2	10.2	10.2
	10	14.2	24.9	35.8	42.9	48.5	52.3	66.0	79.2	88.9	93.4
655630	2	6.8	11.4	14.1	15.0	15.4	15.5	15.8	15.8	15.9	16
	10	15.5	27.7	41.4	50.6	58.0	62.7	77.0	86.5	92.4	94.6
655780	2	2.3	4.4	6.2	7.2	7.9	8.3	9.3	10.4	11.6	12.1
	10	9.1	15.7	22.4	27.6	32.7	36.7	55.4	76.1	91.6	98.3
655850	2	3.7	6.4	8.4	9.6	10.4	10.9	12.5	14.2	14.8	15
	10	15.3	26.9	37.8	45.6	52.1	57.4	79.3	93.5	98.8	99.9
655920	2	10.4	19.0	23.8	26.0	27.4	28.3	31.7	35.1	37.0	37.5
	10	30.6	52.8	69.2	78.1	83.7	87.2	95.9	99.1	99.8	100
655940	2	2.8	4.6	5.7	6.3	6.7	7.0	7.8	8.2	8.3	8.37
	10	14.5	24.6	33.6	39.5	44.5	48.5	66.5	84.4	95.2	98.9
655990	2	2.4	4.2	5.6	6.3	6.7	6.9	7.3	7.7	8.0	8.06
	10	12.1	20.4	27.9	33.2	37.8	41.4	58.2	77.0	91.6	98.1

Conditioned 1st-Order Markov Model J-18

September DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		14.3	23.9	29.4	31.6	32.7	33.3	34.1	34.1	34.1	34.1
	10		30.8	53.3	74.8	85.5	91.7	95.0	99.6	100.0	100.0	100
653190	2		21.1	36.2	43.0	45.6	46.9	47.7	48.6	48.6	48.6	48.6
	10		46.3	73.8	91.2	96.8	98.8	99.6	100.0	100.0	100.0	100
653300	2		18.1	31.1	37.9	40.4	41.6	42.2	43.2	43.3	43.3	43.3
	10		38.1	63.9	83.9	91.9	95.9	97.6	99.9	100.0	100.0	100
653350	2		12.7	21.2	25.4	26.8	27.4	27.8	28.3	28.3	28.4	28.4
	10		29.6	51.1	70.6	80.6	86.6	90.2	97.1	99.1	99.7	99.9
653380	2		10.8	17.7	21.0	21.9	22.2	22.3	22.4	22.4	22.4	22.4
	10		24.1	42.2	59.7	69.8	76.7	80.8	91.3	96.2	98.6	99.5
653440	2		9.0	14.6	17.5	18.5	18.8	18.9	19.0	19.0	19.1	19.1
	10		19.1	33.9	49.5	59.0	65.8	69.9	79.2	84.3	89.6	94.8
653520	2		14.0	22.7	26.1	26.9	27.1	27.2	27.3	27.3	27.4	27.5
	10		33.6	56.5	76.3	85.9	91.3	94.2	98.9	99.8	99.9	99.9
653550	2		18.9	32.3	38.5	41.5	43.5	45.2	48.6	49.0	49.0	49
	10		45.8	72.1	89.7	95.9	98.5	99.4	100.0	100.0	100.0	100
653570	2		15.4	26.0	31.8	33.9	34.9	35.4	35.7	35.7	35.7	35.7
	10		36.0	59.6	79.9	88.8	93.7	96.0	99.5	99.9	100.0	100
653610	2		18.1	30.6	36.2	37.8	38.5	38.7	39.2	39.4	39.4	39.4
	10		38.9	65.8	85.5	93.2	96.9	98.4	100.0	100.0	100.0	100
653760	2		13.4	22.2	27.1	28.7	29.4	29.7	30.0	30.0	30.0	30
	10		28.3	48.1	68.6	79.7	86.8	90.6	98.0	99.5	99.8	99.9
653800	2		7.6	12.8	15.9	17.0	17.4	17.7	17.9	18.0	18.0	18
	10		17.5	30.4	43.5	51.6	57.4	60.6	68.3	72.8	78.4	84.2
653870	2		5.2	8.5	10.6	11.3	11.5	11.6	11.7	11.7	11.7	11.7
	10		13.9	24.1	35.2	42.2	47.5	50.5	56.7	60.3	66.9	75.2
654720	2		2.6	4.3	6.1	7.2	8.1	8.6	9.3	9.4	9.4	9.37
	10		8.9	14.8	20.5	24.1	26.8	28.2	31.0	32.3	36.5	43.7
655010	2		5.7	8.7	10.2	10.7	10.9	11.0	11.0	11.0	11.0	11
	10		16.8	29.6	44.9	55.2	63.9	69.9	89.6	95.8	96.8	96.9
655020	2		9.9	15.9	19.3	20.2	20.6	20.7	20.7	20.7	20.7	20.7
	10		21.0	37.7	57.4	69.9	79.1	84.8	97.5	99.5	99.7	99.7
655030	2		10.9	17.1	20.9	22.4	23.3	23.8	24.6	24.6	24.6	24.6
	10		26.5	46.1	67.5	79.3	87.0	91.3	99.2	99.9	100.0	100
655050	2		10.8	17.1	20.2	21.2	21.6	21.8	21.9	22.0	22.0	22
	10		26.3	46.6	67.9	79.7	87.4	91.9	99.4	100.0	100.0	100
655070	2		12.1	19.3	22.8	24.2	25.0	25.7	28.6	29.7	29.8	29.8
	10		26.8	46.8	67.5	79.5	87.4	91.8	99.2	99.9	100.0	100
655100	2		14.6	24.5	30.3	32.9	34.5	35.4	36.8	36.9	36.9	36.9
	10		33.7	58.0	79.4	89.2	94.5	97.0	99.9	100.0	100.0	100
655160	2		11.3	18.1	21.4	22.6	23.3	23.6	24.0	24.0	24.0	24
	10		29.1	49.7	70.1	81.4	88.6	92.7	99.5	100.0	100.0	100
655180	2		13.8	22.1	26.7	28.8	30.2	31.2	33.2	33.4	33.4	33.4
	10		33.6	56.6	78.3	88.4	94.1	96.7	99.8	100.0	100.0	100
655220	2		15.5	24.9	28.8	30.2	30.9	31.3	32.2	32.3	32.3	32.3
	10		36.4	61.1	82.2	90.9	95.4	97.4	99.9	100.0	100.0	100
655280	2		18.9	32.7	40.1	43.0	44.6	45.7	49.2	50.8	51.3	51.4
	10		40.5	68.2	88.2	95.3	98.2	99.3	100.0	100.0	100.0	100
655360	2		15.8	25.8	30.9	32.6	33.5	34.1	35.7	36.2	36.2	36.3
	10		34.3	58.4	79.9	89.4	94.4	96.7	99.7	99.9	100.0	100

Conditioned 1st-Order Markov Model J-19

September DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	13.1	20.9	24.4	25.5	26.0	26.1	26.3	26.4	26.4	26.4
	10	29.0	49.9	69.2	78.8	84.6	87.8	94.1	96.4	98.0	98.8
655480	2	20.2	35.3	43.1	46.7	49.1	50.9	54.5	55.1	55.5	55.8
	10	42.4	70.2	89.0	95.5	98.2	99.3	100.0	100.0	100.0	100
655550	2	12.0	19.5	23.5	25.2	26.2	26.8	28.7	29.6	30.2	30.4
	10	27.2	46.5	65.5	75.9	82.7	86.5	94.3	96.8	98.0	98.6
655570	2	12.2	21.3	26.5	28.4	29.1	29.5	29.7	29.7	29.7	29.7
	10	28.1	48.0	66.2	76.0	81.9	85.2	91.1	93.7	96.4	98.3
655600	2	10.0	16.6	20.4	22.1	23.0	23.5	23.9	23.9	23.9	24
	10	29.9	49.7	67.8	77.4	83.5	87.1	94.2	96.5	97.7	98.4
655620	2	9.1	13.9	15.8	16.5	17.0	17.5	19.1	19.8	20.1	20.1
	10	24.3	40.8	57.2	66.4	72.4	75.6	82.1	86.0	90.4	94.1
655630	2	8.1	13.3	15.7	16.3	16.5	16.6	16.6	16.6	16.6	16.6
	10	21.8	37.4	53.1	62.5	69.2	73.4	84.4	89.7	93.3	95.7
655780	2	5.2	10.1	14.8	17.3	18.9	19.8	21.3	21.6	21.8	21.9
	10	13.8	23.6	33.9	41.0	47.0	51.0	61.4	68.1	77.6	87.5
655850	2	7.2	13.0	16.3	17.4	17.9	18.1	18.3	18.3	18.3	18.4
	10	20.3	36.1	50.2	58.8	64.7	68.5	77.8	86.5	94.4	98.3
655920	2	12.3	23.3	29.9	33.0	34.5	35.3	36.0	36.5	37.2	37.9
	10	39.4	64.8	81.4	89.0	93.1	95.3	98.8	99.6	99.9	100
655940	2	2.9	5.1	6.4	7.0	7.2	7.3	7.4	7.4	7.4	7.44
	10	16.5	27.4	36.2	41.6	45.7	48.5	56.9	66.3	79.2	90.4
655990	2	3.3	4.9	5.7	5.9	5.9	6.0	6.0	6.0	6.0	6.03
	10	10.6	18.4	26.4	31.6	35.5	38.0	45.5	53.5	66.4	80.9

Conditioned 1st-Order Markov Model J-20

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		3.0	4.5	5.5	5.9	6.2	6.3	6.6	6.7	6.7	6.66
	10		8.9	16.1	26.4	34.7	43.2	49.5	77.7	95.5	99.4	100
653190	2		8.0	12.7	14.8	15.5	15.9	16.1	16.5	16.5	16.5	16.5
	10		21.9	37.9	55.9	67.6	76.7	82.5	96.9	99.9	100.0	100
653300	2		8.4	14.0	17.3	18.5	19.0	19.3	19.6	19.7	19.7	19.7
	10		19.5	33.9	51.5	63.5	73.7	80.2	96.5	99.7	100.0	100
653350	2		9.8	15.6	18.2	19.0	19.2	19.3	19.4	19.5	19.5	19.5
	10		23.8	41.5	60.4	71.6	79.7	84.7	96.5	99.2	99.7	99.9
653380	2		10.9	17.4	20.7	21.6	21.8	21.9	21.9	21.9	21.9	21.9
	10		22.0	38.8	58.0	69.5	78.0	83.1	94.4	97.4	98.9	99.6
653440	2		11.3	18.9	23.4	24.9	25.4	25.7	25.8	25.8	25.8	25.8
	10		24.0	41.7	60.4	71.1	78.4	82.7	91.8	94.0	95.3	96.8
653520	2		6.2	9.7	11.4	11.9	12.1	12.1	12.1	12.1	12.1	12.1
	10		14.6	25.5	39.3	49.4	58.9	65.2	87.7	97.8	99.5	99.7
653550	2		10.3	16.4	18.9	19.8	20.3	20.6	22.1	22.9	23.4	23.6
	10		25.3	44.9	65.2	76.9	85.1	89.9	99.1	100.0	100.0	100
653570	2		9.3	14.6	17.0	17.9	18.4	18.8	19.8	19.9	19.9	19.9
	10		22.5	37.3	55.1	66.5	75.7	81.0	95.2	99.3	99.8	99.9
653610	2		8.8	14.3	17.0	18.0	18.3	18.5	18.6	18.6	18.6	18.6
	10		22.6	38.5	57.0	68.8	78.2	84.0	97.6	99.9	100.0	100
653760	2		8.9	14.2	17.0	17.9	18.2	18.3	18.4	18.4	18.4	18.4
	10		22.0	38.2	56.8	68.4	77.3	82.9	96.3	99.4	99.8	99.9
653800	2		9.2	14.1	16.3	16.8	16.9	17.0	17.1	17.1	17.1	17.1
	10		23.0	40.8	59.3	69.6	76.4	80.4	88.7	90.6	91.8	93.3
653870	2		6.7	10.7	13.1	13.8	14.1	14.2	14.3	14.3	14.3	14.3
	10		15.4	27.1	40.9	49.7	56.7	60.9	71.5	74.6	76.5	79.4
654720	2		5.1	8.0	10.3	11.5	12.3	12.8	14.4	15.2	15.3	15.3
	10		13.1	22.6	33.3	40.0	45.4	48.3	55.3	58.1	59.1	59.9
655010	2		1.1	1.8	2.4	2.7	2.9	3.0	3.1	3.1	3.1	3.12
	10		3.1	5.6	9.7	13.4	17.6	20.6	36.7	58.9	75.7	82.7
655020	2		1.7	2.6	3.2	3.4	3.5	3.5	3.5	3.5	3.5	3.54
	10		7.8	13.7	21.1	26.9	32.9	37.6	62.6	85.9	95.9	98.2
655030	2		2.6	3.8	4.7	5.1	5.5	5.9	7.4	8.3	8.6	8.68
	10		8.3	15.0	24.4	31.7	39.1	44.7	71.7	92.1	98.6	99.6
655050	2		3.2	4.9	5.9	6.1	6.2	6.2	6.2	6.2	6.2	6.17
	10		10.0	17.7	28.0	35.9	43.6	49.3	75.8	93.7	98.9	99.8
655070	2		2.7	3.9	4.5	4.6	4.7	4.7	4.8	5.4	6.0	6.32
	10		9.2	16.8	26.8	34.4	41.8	47.5	74.6	93.6	99.0	99.7
655100	2		5.1	7.7	9.2	9.7	9.9	10.1	10.4	10.4	10.4	10.4
	10		13.8	24.8	39.1	49.4	59.0	65.6	89.4	98.8	99.9	100
655160	2		4.2	6.5	7.8	8.1	8.3	8.4	8.6	8.6	8.6	8.63
	10		11.8	20.8	33.1	41.9	50.4	56.3	81.2	95.8	99.4	99.9
655180	2		3.7	5.4	6.3	6.5	6.6	6.7	6.9	7.0	7.0	7.03
	10		10.9	19.6	31.5	40.6	49.6	56.1	83.0	97.4	99.8	100
655220	2		7.3	11.3	13.1	13.6	13.7	13.7	13.8	13.9	13.9	13.9
	10		19.0	33.5	50.8	61.7	70.6	76.5	94.5	99.5	100.0	100
655280	2		10.0	15.7	18.9	20.4	21.4	22.0	23.6	25.0	26.5	27.3
	10		28.8	48.7	68.8	79.7	87.0	91.3	99.2	100.0	100.0	100
655360	2		7.8	12.7	15.3	16.3	16.8	17.1	17.5	18.2	18.9	19.2
	10		22.9	39.1	56.6	67.6	76.5	82.2	96.7	99.7	100.0	100

Conditioned 1st-Order Markov Model J-21

October DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L									
		0	40	80	120	160	200	400	600	800	1000
655450	2	9.5	15.1	17.8	18.4	18.6	18.7	18.7	18.7	18.7	18.7
	10	22.4	38.1	56.0	67.1	75.7	80.9	94.2	97.7	98.6	99.1
655480	2	10.3	17.7	22.1	24.1	25.0	25.6	26.9	27.5	27.9	28.2
	10	26.3	44.3	63.9	75.8	84.5	89.6	99.0	100.0	100.0	100
655550	2	7.0	11.4	14.2	15.4	16.0	16.4	17.1	17.4	17.8	18
	10	18.4	31.7	48.0	58.8	67.8	73.6	90.7	96.6	98.1	98.7
655570	2	9.5	15.4	18.5	19.8	20.4	20.8	21.2	21.3	21.3	21.3
	10	29.3	50.4	69.5	79.6	85.9	89.9	97.5	98.6	99.0	99.4
655600	2	7.5	11.5	13.6	14.3	14.8	15.0	15.6	15.7	15.7	15.7
	10	21.8	37.7	55.3	66.2	74.5	79.9	93.7	97.3	98.4	98.8
655620	2	9.4	15.1	17.9	18.6	18.8	19.0	20.0	20.9	21.4	21.6
	10	21.6	38.2	56.3	67.2	75.1	80.1	91.2	93.7	95.2	96.6
655630	2	7.7	11.8	13.8	14.4	14.6	14.7	14.7	14.7	14.7	14.7
	10	22.7	39.5	56.7	66.6	73.5	78.0	88.9	92.6	94.8	96.4
655780	2	9.5	17.2	22.5	25.0	26.3	27.2	29.1	29.8	30.0	30.2
	10	22.4	38.8	54.3	63.8	70.7	74.9	85.1	88.6	90.5	92.7
655850	2	13.5	23.3	28.5	30.3	31.1	31.4	31.6	31.6	31.6	31.6
	10	29.7	52.1	70.8	80.2	85.7	88.8	94.5	96.0	97.5	98.9
655920	2	11.8	22.7	30.1	33.8	35.9	37.1	38.7	38.9	39.0	39.2
	10	29.2	51.4	70.5	81.3	88.2	92.3	99.3	99.9	100.0	100
655940	2	6.1	11.1	14.4	15.8	16.5	16.8	17.1	17.1	17.1	17.1
	10	18.3	31.8	44.7	52.8	58.7	62.6	71.6	75.3	79.9	85.8
655990	2	6.7	10.7	12.5	13.0	13.1	13.1	13.1	13.1	13.1	13.1
	10	19.8	33.7	47.5	55.6	61.2	64.4	70.5	72.6	75.7	80.6

Conditioned 1st-Order Markov Model J-22

November DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
	10		0.2	0.6	1.5	2.5	3.8	4.7	10.0	26.1	54.3	80.3
653190	2		0.8	1.4	1.8	2.0	2.2	2.3	2.5	2.5	2.5	2.53
	10		2.1	4.1	7.9	11.9	17.0	20.8	42.9	72.0	90.9	98.4
653300	2		0.8	1.4	2.0	2.3	2.5	2.5	2.6	2.6	2.6	2.59
	10		1.7	3.5	7.1	10.9	15.9	19.7	41.4	70.5	90.2	98
653350	2		1.2	1.9	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.41
	10		3.3	6.3	11.7	16.8	23.0	27.7	52.7	79.4	93.1	97.8
653380	2		1.8	3.0	4.2	4.6	4.9	5.0	5.1	5.1	5.1	5.12
	10		4.7	8.7	15.1	21.0	27.9	33.0	58.7	81.9	92.6	96.7
653440	2		3.4	5.2	6.4	6.9	7.1	7.2	7.4	7.4	7.4	7.36
	10		9.1	16.3	26.2	34.1	42.0	47.7	72.5	87.4	92.2	94.4
653520	2		0.6	1.1	1.8	2.3	2.8	3.0	3.4	3.5	3.5	3.49
	10		1.6	3.2	6.0	8.7	12.3	15.0	29.2	52.0	75.2	90.7
653550	2		2.6	4.1	5.1	5.4	5.5	5.5	5.6	5.6	5.7	5.97
	10		5.1	9.3	16.5	23.0	30.7	36.2	63.0	87.5	97.5	99.7
653570	2		1.3	2.0	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.67
	10		2.7	5.3	10.4	15.1	21.1	25.4	47.5	74.1	90.5	97.4
653610	2		1.4	2.4	3.5	4.1	4.5	4.7	5.0	5.0	5.0	5.01
	10		3.5	6.5	11.7	16.5	22.5	26.9	51.0	78.7	94.2	99.1
653760	2		1.0	1.6	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.29
	10		3.5	6.4	11.5	16.2	21.7	26.0	50.7	78.1	93.3	98.3
653800	2		2.4	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	10		7.3	13.1	21.4	28.1	35.0	40.1	63.0	77.5	82.7	85.4
653870	2		1.5	2.1	2.5	2.7	2.7	2.7	2.8	2.8	2.8	2.76
	10		5.2	9.4	15.3	19.6	24.2	27.5	42.5	54.1	59.4	62.9
654720	2		2.0	2.8	3.4	3.7	4.0	4.1	4.5	4.6	4.7	4.83
	10		5.3	9.6	15.7	20.2	24.7	27.4	38.4	46.1	50.2	52.3
655010	2		0.1	0.2	0.4	0.5	0.7	0.7	0.9	1.0	1.0	1.01
	10		0.1	0.3	0.8	1.3	2.0	2.6	4.8	8.0	16.3	30.1
655020	2		0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.61
	10		0.3	0.7	1.6	2.4	3.4	4.0	6.8	15.8	37.2	62.7
655030	2		0.5	0.8	1.2	1.5	1.6	1.7	1.7	1.8	1.9	2.07
	10		0.9	1.7	3.3	4.8	6.8	8.0	13.8	27.1	51.6	76.2
655050	2		0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.57
	10		0.8	1.7	3.1	4.6	6.3	7.6	14.3	30.4	56.2	80
655070	2		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.44
	10		0.5	1.2	2.4	3.6	5.0	5.8	10.7	25.1	51.8	77.6
655100	2		0.9	1.5	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.03
	10		2.6	4.6	7.8	10.7	14.1	16.5	30.2	53.8	78.5	93.6
655160	2		0.3	0.6	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.01
	10		1.4	2.6	4.5	6.3	8.9	10.7	20.5	39.9	65.5	85.8
655180	2		0.6	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.89
	10		2.6	4.5	7.2	9.3	11.6	13.0	21.4	40.8	67.8	88.3
655220	2		0.5	0.9	1.3	1.5	1.7	1.7	1.8	1.8	1.8	1.77
	10		1.7	3.3	6.4	9.7	13.9	17.0	35.8	63.9	85.6	96.5
655280	2		2.3	3.4	4.3	4.8	5.3	5.7	7.4	8.8	9.6	10.2
	10		7.2	12.6	20.8	27.4	34.6	39.9	67.3	90.2	98.3	99.8
655360	2		1.5	2.3	2.9	3.1	3.3	3.4	3.6	3.7	3.8	3.98
	10		3.9	7.4	13.1	18.1	23.8	28.0	51.1	77.7	93.3	98.7

Conditioned 1st-Order Markov Model J-23

November DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		1.7	2.6	3.1	3.3	3.4	3.4	3.4	3.4	3.4	3.38
	10		6.6	11.7	18.6	24.2	30.1	34.6	57.6	79.4	90.7	95.5
655480	2		2.2	3.4	4.2	4.8	5.3	5.5	6.1	6.2	6.3	6.37
	10		8.5	14.9	23.6	30.3	37.3	42.7	69.9	91.3	98.5	99.9
655550	2		1.6	2.4	3.2	3.5	3.7	3.8	4.0	4.0	4.1	4.1
	10		5.4	9.6	15.4	20.1	25.4	29.3	49.4	71.6	86.4	93.3
655570	2		6.7	9.9	11.4	11.9	12.2	12.4	12.6	12.7	12.7	12.7
	10		21.1	36.4	53.1	63.5	71.2	76.3	92.3	97.6	98.7	99.2
655600	2		2.3	3.3	3.7	3.8	3.8	3.8	3.9	3.9	3.9	3.88
	10		8.6	14.8	23.1	29.3	35.5	39.8	61.3	80.8	91.0	95.2
655620	2		3.2	4.9	5.8	6.0	6.0	6.0	6.1	6.2	6.5	6.91
	10		8.8	15.7	25.1	32.3	39.7	45.0	68.1	83.2	88.9	91.8
655630	2		3.1	4.4	5.0	5.3	5.4	5.4	5.5	5.5	5.5	5.49
	10		11.2	19.1	29.1	36.2	42.6	47.0	66.3	79.6	86.7	90.6
655780	2		9.5	15.2	18.2	19.4	20.1	20.5	21.2	21.4	21.6	21.6
	10		25.8	43.4	60.9	70.8	77.6	81.9	93.0	96.2	97.2	97.8
655850	2		9.4	15.1	18.0	19.0	19.5	19.9	20.4	20.5	20.5	20.5
	10		24.3	43.3	62.5	73.7	81.3	86.4	96.9	98.5	99.0	99.4
655920	2		9.7	16.8	20.7	22.5	23.6	24.4	26.1	26.4	26.4	26.4
	10		26.2	45.6	63.2	73.9	81.3	86.1	97.2	99.7	100.0	100
655940	2		8.5	14.3	17.6	18.9	19.6	19.9	20.4	20.4	20.4	20.4
	10		24.4	41.1	57.6	67.3	74.0	78.1	87.5	90.3	91.7	93.5
655990	2		7.6	11.9	13.9	14.4	14.5	14.6	14.6	14.6	14.6	14.6
	10		19.6	34.3	50.3	60.3	67.6	72.1	83.2	85.8	86.8	88.4

Conditioned 1st-Order Markov Model J-24

December DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
653060	2		0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.38
	10		0.1	0.2	0.4	0.6	0.8	0.9	1.2	1.3	2.6	9.08
653190	2		0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.5	0.6	0.62
	10		0.2	0.3	0.6	0.8	1.2	1.4	2.6	5.5	19.4	43.6
653300	2		0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.16
	10		0.5	0.8	1.1	1.4	1.7	2.0	3.2	5.7	18.8	42.6
653350	2		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
	10		0.8	1.3	2.0	2.4	3.0	3.2	4.2	8.7	26.8	53
653380	2		1.7	2.8	4.0	4.4	4.7	4.8	4.9	4.9	4.9	4.89
	10		2.7	5.2	9.2	12.2	15.5	17.2	22.8	30.4	47.9	68.6
653440	2		1.2	2.1	3.1	3.7	4.2	4.4	4.9	4.9	4.9	4.94
	10		2.1	4.0	7.1	9.8	12.9	14.8	23.0	36.6	55.0	71.7
653520	2		0.2	0.4	0.6	0.8	1.0	1.2	1.7	2.0	2.2	2.2
	10		0.3	0.7	1.3	1.9	2.6	3.0	4.9	7.8	15.9	31
653550	2		0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.51
	10		0.5	1.0	2.0	2.9	4.3	5.1	9.3	18.8	40.7	66.7
653570	2		0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.35
	10		0.4	0.8	1.5	2.1	2.8	3.3	4.8	8.8	24.7	49
653610	2		0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.78
	10		0.8	1.4	2.0	2.4	3.1	3.6	6.5	12.6	29.7	54.8
653760	2		0.5	0.7	1.1	1.2	1.4	1.4	1.5	1.5	1.5	1.53
	10		1.3	2.3	3.7	4.7	5.8	6.4	8.1	12.3	29.3	55
653800	2		1.3	2.2	3.0	3.4	3.6	3.6	3.7	3.7	3.7	3.7
	10		2.0	3.9	7.1	9.8	12.6	14.2	19.4	27.5	39.9	52.2
653870	2		0.6	0.9	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.43
	10		1.8	3.2	5.1	6.5	7.9	8.6	10.4	13.4	19.6	26.6
654720	2		1.3	1.9	2.3	2.5	2.5	2.5	2.6	2.6	2.6	2.57
	10		3.0	5.5	9.2	11.7	14.1	15.3	18.3	21.0	25.5	30.4
655010	2		0.4	0.7	1.2	1.6	1.9	2.0	2.3	2.3	2.3	2.3
	10		0.5	1.0	1.8	2.5	3.3	3.8	5.3	6.1	6.8	8.01
655020	2		0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.09
	10		0.1	0.1	0.1	0.2	0.3	0.3	0.7	1.1	2.0	4.92
655030	2		0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.59
	10		0.3	0.6	1.0	1.4	1.9	2.2	3.4	4.7	7.1	13.7
655050	2		0.5	0.8	1.2	1.4	1.6	1.7	1.8	1.8	1.8	1.78
	10		0.6	1.2	2.2	3.0	3.9	4.4	5.6	6.1	8.5	16.4
655070	2		0.3	0.6	1.0	1.2	1.4	1.5	1.5	1.6	1.6	1.55
	10		0.5	0.9	1.5	2.0	2.6	3.0	4.1	4.6	5.9	11.9
655100	2		0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16
	10		0.4	0.8	1.3	1.6	1.9	2.2	3.4	5.4	13.1	30.2
655160	2		0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.42
	10		0.1	0.3	0.5	0.8	1.1	1.3	2.0	2.8	7.1	18.8
655180	2		0.3	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.72
	10		0.6	1.2	2.0	2.7	3.4	3.8	4.5	5.1	9.2	21.4
655220	2		0.2	0.4	0.6	0.7	0.8	0.8	0.9	1.0	1.0	0.99
	10		0.3	0.6	1.1	1.5	2.1	2.4	3.6	5.5	16.6	37.6
655280	2		0.6	1.0	1.5	1.9	2.3	2.5	3.3	3.6	4.0	4.56
	10		1.3	2.3	3.8	5.2	6.9	8.0	12.7	24.1	47.5	72.9
655360	2		0.4	0.7	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.21
	10		0.6	1.3	2.4	3.5	4.9	5.6	8.2	13.7	30.5	55.4

Conditioned 1st-Order Markov Model J-25

December DRWH Reliability (%)

per capita roof area and storage

Gauge	sq. m	L	0	40	80	120	160	200	400	600	800	1000
655450	2		0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.31
	10		2.1	3.8	6.1	7.8	9.4	10.3	13.4	21.0	39.0	61
655480	2		1.6	2.5	3.3	3.6	3.8	3.9	4.1	4.2	4.3	4.29
	10		3.1	5.7	9.6	12.5	15.4	16.9	22.3	34.5	57.5	80.4
655550	2		1.0	1.5	2.1	2.3	2.5	2.5	2.6	2.6	2.6	2.63
	10		2.4	4.3	7.0	8.9	10.9	12.0	15.5	21.0	35.0	54.5
655570	2		3.1	4.6	5.5	5.8	6.0	6.1	6.1	6.1	6.1	6.15
	10		8.0	14.2	22.7	29.1	35.2	39.3	57.8	76.9	89.4	95.3
655600	2		2.2	3.5	4.4	4.6	4.7	4.8	4.8	4.8	4.8	4.77
	10		4.5	8.2	13.5	17.4	21.2	23.1	28.4	36.8	53.1	70.9
655620	2		1.7	2.5	3.2	3.4	3.4	3.4	3.4	3.4	3.4	3.43
	10		3.4	6.3	10.9	14.3	17.8	19.7	26.7	37.2	52.3	66.6
655630	2		1.2	1.8	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.29
	10		3.6	6.4	10.0	12.7	15.4	17.0	23.3	33.6	48.3	63
655780	2		5.6	8.9	10.8	11.4	11.7	11.9	12.6	12.8	12.8	12.8
	10		12.6	22.2	35.1	44.4	53.2	59.0	79.2	90.3	94.6	96.3
655850	2		4.9	7.7	9.7	10.4	10.8	11.0	11.5	11.7	11.7	11.7
	10		11.9	21.3	33.5	42.5	50.6	56.3	78.9	92.4	97.1	98.4
655920	2		7.9	14.1	19.1	21.2	22.2	22.6	23.0	23.0	23.1	23.1
	10		16.4	29.0	44.0	54.3	63.0	68.8	87.4	96.3	99.2	99.9
655940	2		4.7	7.7	10.1	11.0	11.4	11.6	12.0	12.0	12.0	12
	10		11.5	20.5	32.3	41.0	49.0	54.6	74.9	85.3	88.9	90.8
655990	2		3.9	6.3	8.2	8.9	9.2	9.3	9.5	9.5	9.5	9.46
	10		8.5	15.4	25.0	32.3	39.6	44.5	63.3	74.3	78.1	80.4

Appendix K: Statistical Downscaling Results

Observed**DRWH Reliability (%)****per capita roof area**

Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.8	0.7	2.0	2.8	13.0	16.5
	10	6.8	7.1	12.3	19.8	49.2	51.2
655940	2	0.2	0.3	1.4	3.7	8.2	11.2
	10	2.3	3.0	7.8	17.0	35.5	48.0
655990	2	0.4	0.3	0.9	4.2	9.8	11.4
	10	3.4	2.6	5.8	16.5	36.4	45.2
655780	2	0.6	0.9	2.3	3.8	6.9	16.9
	10	4.2	7.4	15.7	22.6	39.3	51.4
655850	2	0.4	1.7	2.4	3.3	6.7	14.6
	10	3.3	10.3	15.5	20.3	37.2	53.0
655480	2	0.1	0.8	4.2	6.7	5.5	8.2
	10	1.3	6.1	17.7	24.1	26.9	34.9
655600	2	0.3	2.5	2.2	4.9	5.5	3.6
	10	2.2	8.4	13.5	20.1	26.6	26.1
655570	2	0.9	3.3	4.8	7.5	9.1	7.5
	10	4.0	11.3	20.5	26.4	37.6	39.1
655630	2	0.5	0.6	2.2	5.0	5.5	5.5
	10	2.2	4.7	14.7	20.5	27.1	29.9
655620	2	0.4	1.4	2.6	4.4	6.6	4.5
	10	2.5	6.2	15.9	19.2	28.8	29.1
655550	2	0.8	1.1	3.0	6.1	4.3	4.3
	10	2.4	4.0	12.8	19.8	20.8	23.9
655450	2	0.2	0.8	1.5	5.6	6.6	7.9
	10	1.2	4.8	8.6	19.1	27.4	31.4
654720	2	0.4	0.4	1.5	5.4	6.5	3.4
	10	1.4	2.7	6.4	13.3	16.1	22.7
653870	2	0.0	0.7	1.8	2.7	4.2	5.9
	10	0.8	3.6	10.3	15.7	25.8	28.4
653760	2	0.0	0.5	1.6	3.9	6.2	8.5
	10	1.2	3.7	9.8	18.4	23.0	31.8
653800	2	0.2	0.7	4.0	4.4	4.8	3.9
	10	0.7	4.5	13.8	18.6	23.1	25.2
653440	2	0.3	1.3	2.1	7.1	7.8	11.0
	10	2.2	4.9	11.6	21.0	30.9	42.6
653380	2	0.0	0.8	2.0	5.0	5.8	5.3
	10	0.5	4.3	13.0	22.3	26.4	30.7
653350	2	0.1	1.3	2.9	4.8	3.5	4.7
	10	0.8	4.3	12.9	20.8	22.2	31.5
655280	2	0.3	0.6	0.6	2.9	3.8	5.4
	10	1.6	1.6	4.9	17.2	19.0	27.3

Observed**DRWH Reliability (%)****per capita roof area**

Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.3	3.8	4.7	4.1	3.3	2.6
	10	25.8	36.2	40.9	34.8	28.5	18.7
655940	2	2.1	1.3	1.3	2.1	3.6	1.7
	10	18.5	16.3	15.6	20.7	27.2	13.5
655990	2	2.2	0.8	1.0	2.2	2.5	1.6
	10	18.6	11.8	10.6	19.9	18.9	10.8
655780	2	2.2	0.7	1.2	3.4	4.3	2.4
	10	19.1	10.6	14.4	27.4	27.6	16.1
655850	2	2.2	1.4	1.6	3.9	3.1	1.5
	10	23.8	17.5	21.6	34.3	25.4	13.0
655480	2	4.1	9.4	10.5	5.6	1.4	1.0
	10	34.0	50.7	49.6	29.7	8.4	4.4
655600	2	2.3	2.8	3.7	2.8	0.8	1.3
	10	21.2	24.5	30.4	21.0	7.2	5.6
655570	2	2.0	1.5	3.9	5.6	3.4	0.9
	10	17.2	19.1	27.6	33.0	20.9	7.1
655630	2	2.6	1.6	2.8	4.1	1.4	0.6
	10	17.6	17.8	23.3	25.1	10.5	5.0
655620	2	2.0	1.0	3.2	4.5	1.1	1.3
	10	18.2	13.8	24.4	26.6	8.7	4.9
655550	2	3.3	3.7	5.1	4.5	0.6	0.6
	10	18.5	25.6	29.5	21.0	5.4	3.4
655450	2	2.4	2.1	6.4	4.3	0.6	0.3
	10	17.5	18.8	34.7	25.5	6.5	2.6
654720	2	1.2	0.4	0.9	1.7	0.7	1.3
	10	11.2	6.4	8.8	13.7	5.2	3.8
653870	2	1.6	0.6	1.6	1.9	0.4	0.4
	10	13.9	7.9	15.7	15.7	5.0	3.3
653760	2	6.4	6.2	7.2	4.4	0.3	0.4
	10	36.0	33.3	33.1	22.4	3.2	2.0
653800	2	1.8	0.7	2.4	4.6	0.7	0.9
	10	18.2	10.3	23.0	29.0	8.0	3.4
653440	2	2.6	1.2	3.1	5.2	1.4	0.3
	10	19.6	12.6	24.3	28.9	8.8	3.2
653380	2	4.1	3.4	3.3	4.2	0.4	1.0
	10	27.8	24.7	26.7	24.9	4.4	3.4
653350	2	3.8	4.5	5.6	4.6	0.8	0.1
	10	26.3	29.6	33.3	24.9	3.3	1.1
655280	2	9.7	12.7	8.8	6.0	1.2	0.1
	10	38.7	52.5	45.6	30.1	7.2	1.1

Observed**DRWH Reliability (%)****per capita roof area**

Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	1.2	1.9	3.7	4.7	7.5
	10	0.8	3.0	7.8	15.3	22.8	28.4
655100	2	0.1	0.1	0.4	1.5	3.4	5.4
	10	0.3	1.1	4.4	10.2	19.2	28.6
655220	2	0.2	0.2	1.3	2.1	3.5	8.1
	10	1.0	1.3	5.4	13.5	20.0	26.9
655180	2	0.0	0.1	0.4	1.0	3.1	7.2
	10	0.0	0.6	3.9	6.9	15.5	28.8
653520	2	0.2	0.1	0.7	0.9	3.2	5.8
	10	0.2	0.7	3.3	7.8	17.8	23.2
653190	2	0.0	0.0	0.6	2.6	3.9	6.3
	10	0.0	0.8	4.6	18.6	23.4	33.4
653550	2	0.0	0.4	1.0	1.5	4.0	6.6
	10	0.0	2.7	6.4	13.5	26.8	35.5
653570	2	0.5	0.2	0.7	2.7	4.4	10.0
	10	0.5	1.2	4.5	14.9	19.2	24.0
653610	2	0.1	0.4	1.2	2.4	3.8	6.4
	10	0.7	1.6	8.4	16.8	25.5	33.5
653300	2	0.0	0.1	1.0	2.7	6.6	5.6
	10	0.0	1.1	7.0	13.6	28.5	31.8
653060	2	0.0	0.7	0.6	1.3	3.4	7.4
	10	0.0	0.7	2.1	8.2	18.1	28.1
655050	2	0.0	0.1	0.3	0.4	1.9	5.0
	10	0.0	0.6	2.9	4.8	13.0	21.7
655160	2	0.0	0.0	0.4	2.0	3.1	5.7
	10	0.0	0.2	3.1	10.0	18.1	26.6
655030	2	0.0	0.3	0.4	1.2	2.6	3.7
	10	0.0	0.3	2.6	6.0	15.2	21.9
655020	2	0.0	0.2	0.1	0.5	1.1	2.6
	10	0.0	0.2	1.2	2.8	9.0	17.4
655070	2	0.0	0.1	1.2	0.9	3.1	6.7
	10	0.0	0.2	4.4	6.4	15.9	25.0
655010	2	0.0	0.0	0.1	0.1	0.5	1.6
	10	0.1	0.1	0.8	0.9	4.5	12.9

Observed**DRWH Reliability (%)****per capita roof area**

Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	8.4	13.5	7.5	2.9	0.3	0.7
	10	31.0	43.2	37.0	22.2	3.8	1.2
655100	2	7.8	12.8	7.4	2.7	0.3	0.2
	10	32.7	49.7	39.1	15.8	2.5	0.5
655220	2	6.8	8.9	9.7	3.5	0.2	0.1
	10	34.1	39.7	39.5	20.6	2.1	0.5
655180	2	7.3	11.1	8.8	1.6	0.4	0.8
	10	31.0	45.7	37.2	11.8	2.9	0.9
653520	2	7.0	7.0	7.7	2.5	0.5	0.2
	10	30.0	33.5	38.8	15.0	1.8	0.2
653190	2	7.5	8.1	12.9	3.4	0.5	0.0
	10	40.7	49.1	54.9	23.3	2.4	0.3
653550	2	6.5	12.8	12.3	4.8	1.0	0.1
	10	39.8	54.6	54.0	31.5	5.6	0.6
653570	2	6.1	6.6	8.4	5.1	0.6	0.4
	10	33.2	34.9	38.5	21.2	2.8	0.7
653610	2	6.8	8.9	8.8	3.6	0.8	0.0
	10	44.0	46.7	46.9	21.7	3.7	1.1
653300	2	6.7	7.9	9.8	4.3	0.2	0.0
	10	38.4	39.7	44.7	23.3	1.3	0.8
653060	2	10.3	8.8	7.4	1.0	0.0	0.0
	10	36.9	41.4	36.4	9.1	0.4	0.2
655050	2	8.1	12.6	5.6	1.4	0.1	0.8
	10	30.2	41.1	30.3	11.9	1.3	0.8
655160	2	6.9	10.4	6.2	2.3	0.2	0.0
	10	34.4	46.1	33.0	13.2	1.5	0.2
655030	2	7.7	8.9	4.7	1.1	0.1	0.2
	10	32.7	39.0	27.0	9.7	1.1	0.8
655020	2	6.2	8.1	4.6	0.9	0.1	0.0
	10	30.6	37.8	25.0	7.6	0.6	0.0
655070	2	9.4	10.5	7.2	1.1	0.1	0.2
	10	34.2	43.0	31.0	9.9	0.8	0.8
655010	2	4.4	6.6	2.6	0.4	0.0	0.7
	10	23.5	30.0	19.2	3.2	0.2	0.8

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.8	0.8	1.5	1.9	10.2	13.4
	10	7.0	6.1	12.3	19.6	49.1	49.2
655940	2	0.3	0.3	1.3	3.8	6.2	9.6
	10	2.5	2.7	7.7	16.2	32.4	45.1
655990	2	0.4	0.4	0.7	3.6	8.1	9.7
	10	3.5	2.5	5.6	15.6	32.9	43.2
655780	2	0.7	0.9	1.9	3.9	5.8	15.0
	10	4.5	6.6	13.9	21.9	38.3	50.7
655850	2	0.3	1.4	1.9	3.3	5.2	12.8
	10	3.7	9.0	14.1	19.8	36.3	51.7
655480	2	0.1	0.8	4.4	5.0	4.6	6.6
	10	1.2	6.4	17.8	22.3	26.0	35.8
655600	2	0.2	2.5	2.2	3.7	3.0	3.7
	10	2.0	8.4	13.7	19.2	26.0	27.0
655570	2	0.6	3.3	4.9	5.7	5.1	7.8
	10	3.8	11.3	21.3	25.3	37.4	39.6
655630	2	0.3	0.5	2.7	3.4	3.0	6.1
	10	2.1	4.5	15.4	19.6	26.5	30.4
655620	2	0.2	1.3	2.4	3.9	3.8	4.0
	10	2.3	6.0	16.5	18.1	28.8	28.9
655550	2	0.4	1.2	3.3	4.8	2.3	4.6
	10	2.4	4.0	13.2	19.3	20.1	24.0
655450	2	0.1	0.7	1.6	4.0	4.5	8.3
	10	1.2	4.6	8.6	18.2	26.7	33.3
654720	2	0.1	0.4	1.9	4.4	5.8	3.2
	10	1.3	2.8	6.5	12.8	16.7	21.7
653870	2	0.0	0.6	2.7	2.2	3.8	5.7
	10	0.4	3.7	10.7	13.9	25.6	27.6
653760	2	0.0	0.5	2.1	3.1	5.5	7.2
	10	0.8	3.8	9.8	17.1	23.2	30.7
653800	2	0.1	0.6	4.5	2.8	2.8	3.3
	10	0.6	4.5	13.7	18.0	21.9	24.6
653440	2	0.0	1.1	2.3	4.2	5.4	9.2
	10	1.8	4.8	11.4	20.6	30.1	41.9
653380	2	0.0	0.8	2.5	2.6	3.5	4.4
	10	0.5	4.3	12.7	21.1	26.0	29.6
653350	2	0.0	1.0	3.3	2.7	2.0	4.3
	10	0.6	4.1	12.7	20.2	21.3	30.3
655280	2	0.1	0.5	0.4	1.8	2.5	3.7
	10	1.6	1.6	4.8	15.4	19.5	28.5

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.4	3.9	5.5	4.1	2.6	3.6
	10	25.9	37.4	42.1	34.6	26.9	20.7
655940	2	2.4	1.5	1.4	2.3	2.7	2.8
	10	20.0	16.7	17.2	21.8	27.2	15.3
655990	2	2.3	0.8	0.8	3.1	2.1	2.8
	10	18.9	11.8	11.9	21.3	18.6	12.0
655780	2	3.0	0.7	1.7	2.9	3.6	3.5
	10	22.2	10.8	16.7	29.2	26.4	17.8
655850	2	3.2	1.3	2.7	3.6	2.8	2.6
	10	27.1	17.1	25.2	36.6	24.3	14.4
655480	2	4.1	11.8	10.8	3.9	0.7	0.4
	10	38.1	52.4	51.0	26.2	7.9	4.3
655600	2	2.6	2.8	4.0	2.6	0.4	1.1
	10	22.4	24.4	31.7	18.6	6.4	5.7
655570	2	2.2	1.7	4.3	4.7	1.9	0.6
	10	18.4	18.2	28.9	29.7	19.7	6.4
655630	2	3.0	1.7	3.4	3.2	0.9	0.4
	10	18.7	17.0	25.1	22.5	9.7	4.7
655620	2	2.2	0.9	3.5	3.9	0.8	1.1
	10	19.3	13.5	25.1	23.8	8.4	4.9
655550	2	3.4	3.2	5.8	3.7	0.4	0.4
	10	19.5	24.2	30.8	19.3	5.1	3.3
655450	2	2.9	1.8	6.7	3.0	0.6	0.1
	10	20.0	17.0	35.7	22.4	5.9	2.8
654720	2	1.1	0.4	0.8	1.1	0.6	0.8
	10	11.2	7.1	9.1	14.1	5.0	4.1
653870	2	1.5	0.6	1.9	1.4	0.4	0.3
	10	13.6	8.1	16.2	16.1	4.4	3.6
653760	2	5.8	6.3	8.5	3.4	0.3	0.4
	10	35.9	34.5	33.8	23.2	2.7	2.1
653800	2	1.6	0.8	2.9	3.4	0.6	1.0
	10	17.3	12.4	23.7	29.6	7.1	3.5
653440	2	2.1	1.4	3.5	4.4	1.0	0.5
	10	19.8	13.8	25.4	28.8	8.1	3.4
653380	2	3.9	3.4	3.7	3.3	0.4	1.4
	10	28.2	26.8	27.8	24.9	3.9	3.5
653350	2	3.3	4.9	5.8	3.9	0.6	0.1
	10	26.7	31.7	34.4	25.7	3.0	1.1
655280	2	9.0	11.5	8.4	4.2	1.0	0.1
	10	39.5	50.4	45.9	29.8	7.1	1.1

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.2	1.6	1.0	4.0	3.1	5.3
	10	0.8	3.0	7.7	15.4	21.1	29.8
655100	2	0.2	0.3	0.3	1.9	2.4	3.2
	10	0.3	1.1	4.0	10.6	18.0	29.8
655220	2	0.3	0.2	1.0	2.6	2.5	5.5
	10	0.9	1.2	5.2	13.5	17.9	27.3
655180	2	0.0	0.0	0.4	0.9	1.6	6.9
	10	0.0	0.5	3.5	7.1	14.3	29.8
653520	2	0.2	0.0	0.5	0.9	1.9	5.1
	10	0.2	0.6	3.2	8.1	16.7	24.2
653190	2	0.0	0.0	0.3	2.9	2.3	6.1
	10	0.0	0.8	4.1	19.3	21.5	34.7
653550	2	0.0	0.3	0.6	1.5	2.6	6.4
	10	0.0	2.6	6.0	13.8	24.7	36.3
653570	2	0.5	0.0	0.5	2.8	2.8	9.6
	10	0.5	1.2	4.0	14.9	17.9	25.5
653610	2	0.2	0.2	0.8	2.3	2.2	5.9
	10	0.6	1.6	7.3	16.5	23.8	34.7
653300	2	0.0	0.1	1.0	2.2	3.4	2.6
	10	0.0	1.2	6.4	14.4	27.3	21.2
653060	2	0.0	0.6	0.7	0.9	1.8	3.6
	10	0.0	0.7	2.2	8.6	17.0	18.0
655050	2	0.0	0.2	0.2	0.5	1.6	4.6
	10	0.0	0.5	2.7	4.6	12.1	21.4
655160	2	0.0	0.0	0.5	1.5	2.4	5.4
	10	0.0	0.2	3.1	9.3	17.0	26.5
655030	2	0.0	0.2	0.3	1.2	1.9	3.4
	10	0.0	0.3	2.5	5.9	14.0	21.6
655020	2	0.0	0.2	0.1	0.2	1.2	2.1
	10	0.0	0.2	1.0	2.6	8.6	16.9
655070	2	0.0	0.1	1.4	0.7	1.7	6.2
	10	0.0	0.2	4.3	6.7	13.5	24.9
655010	2	0.0	0.0	0.1	0.1	0.2	1.7
	10	0.2	0.2	0.8	1.0	3.5	10.9

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	9.5	14.8	9.9	3.0	0.5	0.5
	10	32.6	44.2	39.3	22.8	3.9	1.3
655100	2	8.8	14.3	9.0	2.6	0.5	0.0
	10	34.4	51.1	41.6	16.2	2.6	0.5
655220	2	7.0	8.9	10.2	3.5	0.2	0.2
	10	34.8	40.3	43.3	21.7	2.2	0.7
655180	2	6.4	11.5	8.2	1.5	0.5	0.8
	10	31.1	46.5	41.0	12.1	2.8	1.0
653520	2	5.8	6.9	6.3	1.7	0.4	0.2
	10	30.3	33.9	42.2	15.2	1.7	0.2
653190	2	6.4	8.6	11.1	2.3	0.4	0.0
	10	40.5	49.6	59.0	23.7	2.4	0.3
653550	2	5.4	12.1	11.4	4.1	0.9	0.0
	10	39.2	54.6	58.4	32.1	5.5	0.6
653570	2	5.6	5.9	7.5	3.7	0.7	0.2
	10	32.9	35.1	42.3	21.5	2.9	0.7
653610	2	6.5	8.3	8.0	2.8	0.9	0.0
	10	43.1	47.0	49.8	22.6	3.7	0.9
653300	2	6.0	9.1	4.6	3.0	0.1	0.0
	10	37.2	41.1	50.6	24.2	1.3	0.8
653060	2	9.3	10.7	3.0	0.7	0.0	0.1
	10	35.3	43.2	41.8	9.1	0.4	0.2
655050	2	9.4	11.4	4.7	1.1	0.0	0.8
	10	31.5	41.1	32.8	11.1	1.3	0.8
655160	2	7.2	10.3	5.3	1.5	0.1	0.0
	10	35.8	46.6	36.3	12.8	1.6	0.2
655030	2	7.5	9.0	4.1	0.6	0.0	0.3
	10	34.2	38.6	29.7	8.5	0.8	0.9
655020	2	7.1	8.7	4.3	0.5	0.0	0.0
	10	32.2	37.8	26.9	6.7	0.7	0.0
655070	2	9.6	11.2	3.4	0.9	0.0	0.2
	10	36.5	43.9	33.5	9.1	0.5	0.9
655010	2	5.2	7.3	2.8	0.1	0.0	0.8
	10	25.0	29.9	19.0	2.9	0.3	0.9

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.9	0.6	1.7	2.4	12.3	15.6
	10	7.6	6.2	12.5	19.0	50.1	50.9
655940	2	0.2	0.3	1.1	3.0	5.6	10.6
	10	2.7	2.9	8.0	15.8	33.3	47.9
655990	2	0.6	0.2	0.7	3.3	7.5	10.7
	10	3.7	2.6	5.9	15.5	33.7	45.4
655780	2	0.8	0.8	2.0	2.8	5.8	15.3
	10	4.7	6.8	15.2	20.3	39.1	49.1
655850	2	0.4	1.3	1.7	2.7	5.4	13.3
	10	3.6	9.1	15.0	18.6	36.6	51.1
655480	2	0.2	0.8	4.1	5.8	5.2	7.2
	10	1.5	6.3	17.9	24.5	24.9	33.2
655600	2	0.4	2.4	2.1	4.5	4.5	3.0
	10	2.4	8.5	13.8	20.2	27.0	27.0
655570	2	1.0	3.3	5.3	6.5	7.1	6.2
	10	4.3	11.3	21.3	26.0	38.1	40.0
655630	2	0.7	0.4	2.5	3.8	4.6	5.2
	10	2.2	4.5	15.1	20.7	26.8	30.9
655620	2	0.4	1.2	2.9	4.0	5.1	3.6
	10	2.5	6.1	16.9	19.2	29.1	29.4
655550	2	0.8	1.0	3.2	5.6	3.3	3.9
	10	2.5	4.0	13.0	19.8	20.8	24.5
655450	2	0.2	0.9	1.4	3.6	4.8	7.4
	10	1.3	4.6	8.8	17.7	27.0	32.9
654720	2	0.4	0.5	1.8	4.1	6.2	3.1
	10	1.4	2.9	6.6	12.8	16.2	22.4
653870	2	0.0	0.8	2.5	2.0	4.9	5.7
	10	0.7	3.8	10.8	14.1	24.3	28.1
653760	2	0.0	0.5	2.1	2.9	6.2	7.4
	10	1.4	4.1	9.9	16.9	22.1	30.9
653800	2	0.2	0.6	3.4	3.2	4.6	3.1
	10	0.7	4.7	13.9	19.0	21.9	24.6
653440	2	0.3	1.3	1.9	4.8	6.8	9.4
	10	2.2	5.0	11.8	21.1	30.1	42.8
653380	2	0.1	0.8	1.8	2.8	5.2	4.6
	10	0.7	4.3	13.4	22.0	25.8	30.2
653350	2	0.1	1.5	2.5	3.1	2.9	4.4
	10	0.8	4.4	12.9	21.2	20.8	30.6
655280	2	0.1	0.6	0.6	1.3	2.1	3.3
	10	1.6	1.6	5.2	15.2	18.4	28.6

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.9	4.1	5.5	3.5	2.4	4.5
	10	26.8	35.4	42.7	34.3	28.4	21.8
655940	2	2.5	1.2	1.6	3.1	2.4	4.2
	10	19.8	15.8	18.5	21.1	26.9	16.4
655990	2	2.4	0.9	0.9	3.2	1.9	4.5
	10	19.4	11.2	12.8	20.1	19.0	12.6
655780	2	2.6	0.5	1.7	3.1	3.1	4.8
	10	20.9	9.6	16.3	27.9	26.4	18.6
655850	2	3.0	1.0	2.1	3.9	2.2	3.1
	10	25.6	15.8	24.3	34.4	25.1	15.4
655480	2	4.4	10.7	11.3	1.4	1.0	0.7
	10	34.9	51.6	50.6	6.6	8.1	4.6
655600	2	2.5	2.4	4.2	3.0	0.4	2.9
	10	22.0	22.9	31.5	18.5	6.7	5.9
655570	2	2.2	1.7	4.1	5.8	2.5	2.4
	10	18.0	17.7	28.3	29.9	20.8	7.7
655630	2	3.0	1.7	3.3	3.6	1.0	1.8
	10	18.5	16.4	24.8	22.2	9.9	5.3
655620	2	2.0	1.0	3.9	4.2	1.0	2.5
	10	18.9	13.4	25.4	23.4	8.9	5.2
655550	2	3.2	3.2	5.7	4.1	0.4	1.4
	10	19.4	23.4	30.8	18.5	5.0	3.6
655450	2	2.7	1.7	6.6	3.8	0.7	1.1
	10	18.8	16.1	35.0	21.3	6.3	2.8
654720	2	1.1	0.3	0.8	1.2	0.8	2.5
	10	10.5	6.3	8.4	14.5	5.3	4.2
653870	2	1.6	0.4	1.7	1.3	0.5	1.4
	10	13.3	7.2	15.4	16.2	5.1	3.7
653760	2	5.8	5.2	8.0	3.5	0.3	1.1
	10	35.2	32.0	32.7	23.0	3.3	2.3
653800	2	1.7	0.8	2.5	3.3	0.9	1.7
	10	17.5	11.1	23.2	29.2	8.4	3.8
653440	2	2.3	1.2	3.3	3.9	1.6	1.2
	10	19.6	13.2	24.7	28.1	8.5	3.8
653380	2	4.2	3.4	3.3	3.2	0.5	2.1
	10	28.1	25.6	27.5	24.1	4.1	3.8
653350	2	4.0	4.3	5.7	3.5	0.8	0.4
	10	26.3	30.4	34.2	24.9	3.2	1.3
655280	2	8.5	11.3	8.7	6.9	2.3	0.1
	10	38.0	54.9	46.6	30.8	7.4	1.2

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.3	2.3	1.7	3.5	3.2	5.2
	10	0.8	3.1	8.0	15.5	21.6	27.9
655100	2	0.2	0.5	0.3	1.4	2.4	3.6
	10	0.4	1.1	4.3	10.5	18.1	27.4
655220	2	0.3	0.3	0.9	2.0	2.9	5.5
	10	0.9	1.4	5.5	13.2	18.7	26.0
655180	2	0.0	0.0	0.4	0.8	3.0	5.9
	10	0.0	0.6	3.8	6.1	15.2	28.6
653520	2	0.2	0.0	0.5	0.8	3.0	4.1
	10	0.2	0.7	3.0	7.1	17.2	23.7
653190	2	0.0	0.0	0.5	2.6	3.5	4.7
	10	0.0	0.8	4.4	17.5	22.0	33.2
653550	2	0.0	0.3	0.9	1.3	3.8	4.9
	10	0.0	2.9	6.5	12.4	24.8	35.2
653570	2	0.5	0.1	0.6	2.2	3.8	9.0
	10	0.5	1.2	4.5	14.0	18.4	24.2
653610	2	0.3	0.2	1.1	2.0	4.1	5.2
	10	0.6	1.8	8.0	15.3	24.5	33.3
653300	2	0.0	0.1	0.8	1.8	5.8	2.9
	10	0.1	0.9	6.7	13.6	28.6	19.6
653060	2	0.0	0.7	0.8	0.9	3.1	3.3
	10	0.0	0.8	2.2	8.0	18.4	15.9
655050	2	0.0	0.2	0.2	0.4	2.3	4.8
	10	0.0	0.5	2.9	4.1	12.5	20.1
655160	2	0.0	0.0	0.4	1.7	3.0	5.3
	10	0.0	0.2	3.4	9.0	17.4	24.5
655030	2	0.0	0.2	0.3	1.1	2.4	4.0
	10	0.0	0.3	2.7	5.8	14.3	20.1
655020	2	0.0	0.2	0.1	0.4	1.4	2.4
	10	0.0	0.2	1.2	2.6	8.8	15.9
655070	2	0.0	0.1	0.9	0.9	2.4	6.0
	10	0.0	0.2	4.3	6.6	14.6	23.4
655010	2	0.0	0.0	0.0	0.0	0.4	1.3
	10	0.1	0.1	0.8	0.8	4.4	11.0

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	1.0	0.7	1.7	2.0	10.2	13.2
	10	8.1	6.8	13.6	20.5	49.7	49.9
655940	2	0.2	0.4	1.5	2.6	6.2	8.4
	10	2.6	3.0	9.2	16.8	33.5	45.6
655990	2	0.7	0.4	0.6	2.7	7.6	9.0
	10	3.8	2.7	6.3	16.4	34.3	44.1
655780	2	0.8	1.0	2.4	2.5	4.0	13.0
	10	4.8	7.4	16.9	21.3	38.7	50.2
655850	2	0.4	1.7	2.1	2.0	3.5	11.6
	10	3.7	10.2	16.9	19.8	36.0	51.1
655480	2	0.0	0.6	4.9	5.8	4.3	7.4
	10	1.2	5.6	18.7	23.2	27.0	33.8
655600	2	0.0	2.8	2.3	3.3	3.6	3.5
	10	1.7	8.1	14.6	19.6	27.7	27.1
655570	2	0.1	3.4	5.3	5.7	6.5	7.4
	10	3.6	10.8	22.1	26.5	39.4	39.8
655630	2	0.1	0.5	2.6	3.6	3.1	6.0
	10	1.8	4.3	16.2	20.2	28.1	30.6
655620	2	0.0	1.3	2.7	3.8	4.2	4.4
	10	1.9	5.9	17.2	18.9	30.3	29.7
655550	2	0.1	1.2	3.3	5.3	3.1	4.2
	10	2.3	3.9	13.7	20.0	21.5	24.6
655450	2	0.0	0.8	1.2	3.5	5.2	9.1
	10	0.9	4.4	8.8	17.7	27.4	33.2
654720	2	0.0	0.4	1.8	4.4	6.9	4.6
	10	1.3	2.9	6.9	12.8	15.9	23.7
653870	2	0.0	0.6	2.1	1.9	5.7	6.4
	10	0.4	3.5	10.7	14.5	25.1	29.2
653760	2	0.0	0.3	1.7	3.2	6.8	9.8
	10	0.6	3.7	10.2	17.6	22.0	32.6
653800	2	0.0	0.9	4.3	3.2	5.2	3.5
	10	0.7	4.1	14.4	18.5	23.2	25.7
653440	2	0.1	1.3	2.0	5.7	8.5	10.6
	10	1.9	4.7	11.9	20.9	31.5	42.6
653380	2	0.0	0.9	2.2	3.0	6.3	5.3
	10	0.5	4.2	13.6	21.8	27.2	30.9
653350	2	0.0	1.3	2.8	3.3	4.1	5.0
	10	0.6	4.2	13.2	20.7	22.6	31.9
655280	2	0.1	0.0	0.5	1.6	2.2	4.5
	10	1.5	1.5	4.9	15.8	19.0	27.5

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	8.1	12.3	10.0	3.3	0.8	0.7
	10	30.2	42.6	38.6	22.7	4.4	1.3
655100	2	7.9	12.1	8.9	2.7	0.6	0.1
	10	32.2	49.3	40.8	16.3	2.5	0.5
655220	2	6.8	8.6	9.6	3.7	0.2	0.2
	10	33.6	40.7	41.2	21.8	1.9	0.7
655180	2	6.0	11.9	5.7	2.0	0.5	0.7
	10	31.2	45.9	37.6	12.3	2.9	1.0
653520	2	5.6	7.4	4.9	2.4	0.3	0.2
	10	30.0	33.4	39.6	15.4	1.6	0.2
653190	2	6.2	8.6	7.9	3.1	0.4	0.0
	10	40.3	49.3	55.8	24.0	2.5	0.3
653550	2	4.9	13.2	8.8	4.5	1.4	0.1
	10	38.6	54.6	55.3	32.4	5.3	0.7
653570	2	5.2	6.4	5.7	4.8	0.6	0.2
	10	32.7	34.7	39.3	21.8	2.8	0.8
653610	2	5.2	9.2	5.0	3.6	0.9	0.0
	10	42.6	47.3	47.5	22.0	3.8	0.9
653300	2	5.5	10.6	6.9	3.8	0.1	0.0
	10	35.8	43.6	46.6	25.5	1.1	0.8
653060	2	8.6	11.7	5.3	0.8	0.0	0.0
	10	34.5	45.5	38.3	9.9	0.5	0.2
655050	2	6.4	13.5	4.9	1.1	0.0	0.8
	10	30.9	44.3	33.9	12.3	1.3	0.8
655160	2	5.0	11.3	5.8	1.9	0.0	0.0
	10	34.6	50.0	37.1	13.6	1.6	0.2
655030	2	6.0	9.4	4.5	0.8	0.0	0.3
	10	33.3	42.4	30.2	9.9	0.9	0.9
655020	2	5.0	8.4	4.0	0.6	0.0	0.0
	10	31.0	41.4	28.1	7.8	0.6	0.0
655070	2	8.3	9.6	5.4	0.6	0.0	0.0
	10	35.3	46.6	34.2	9.5	0.5	0.9
655010	2	5.0	8.2	3.0	0.1	0.1	0.8
	10	22.5	33.3	20.2	2.6	0.3	0.9

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	2.7	4.3	4.0	3.2	2.7	4.1
	10	23.7	37.5	39.3	34.8	28.6	20.9
655940	2	1.9	1.5	1.6	1.9	3.4	3.8
	10	18.3	16.4	17.9	21.2	29.5	14.8
655990	2	1.9	1.1	0.9	2.3	2.3	4.1
	10	17.2	11.9	12.1	20.5	20.8	11.8
655780	2	2.4	0.8	1.4	2.5	3.6	3.8
	10	20.2	10.7	16.5	28.2	27.9	17.4
655850	2	2.7	1.3	2.4	3.1	2.2	2.7
	10	24.8	16.9	24.4	35.3	26.2	14.8
655480	2	4.9	10.9	10.4	3.1	0.9	0.4
	10	42.6	53.2	49.3	24.3	8.3	4.3
655600	2	2.2	2.9	5.0	3.2	0.3	2.3
	10	20.3	26.1	33.2	18.9	6.5	5.8
655570	2	1.7	1.9	4.8	5.6	1.8	2.0
	10	15.7	19.3	29.9	30.0	20.7	7.3
655630	2	2.4	1.9	3.9	3.8	0.8	1.3
	10	16.9	18.5	25.8	22.6	10.1	4.9
655620	2	1.9	1.3	4.1	4.0	0.7	2.1
	10	17.0	15.2	26.3	23.5	8.7	5.0
655550	2	2.5	4.1	6.2	4.0	0.3	0.8
	10	18.0	26.2	31.5	18.9	5.0	3.3
655450	2	2.3	2.3	7.4	3.1	0.6	0.4
	10	17.9	17.9	35.7	22.4	6.1	2.9
654720	2	1.0	0.4	0.8	2.0	0.6	1.6
	10	10.8	6.4	8.6	12.6	5.1	4.0
653870	2	1.7	0.6	1.6	2.2	0.5	0.5
	10	13.4	8.3	15.5	15.1	5.1	3.5
653760	2	6.3	6.3	8.0	4.3	0.2	0.5
	10	35.4	33.7	32.2	21.0	3.2	2.1
653800	2	2.0	0.8	2.7	5.0	0.8	0.8
	10	19.0	10.8	22.3	27.0	7.8	3.6
653440	2	2.6	1.3	3.1	5.2	1.3	0.4
	10	21.2	13.4	23.9	26.7	8.6	3.3
653380	2	5.1	3.1	3.5	4.2	0.5	1.0
	10	29.7	26.3	26.6	22.6	3.9	3.5
653350	2	4.4	4.4	5.2	5.1	0.6	0.2
	10	27.9	30.6	33.0	23.4	3.2	1.2
655280	2	8.1	11.5	6.9	7.4	0.7	0.1
	10	37.2	51.5	45.4	30.7	7.2	1.2

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	0.5	1.9	3.9	4.9	5.0
	10	0.9	3.0	8.2	15.6	22.6	29.3
655100	2	0.1	0.0	0.4	1.5	3.1	3.0
	10	0.3	1.1	4.5	10.3	19.4	29.6
655220	2	0.3	0.0	1.0	2.5	4.3	7.5
	10	0.9	1.0	5.2	13.4	19.6	28.1
655180	2	0.0	0.0	0.4	1.1	4.2	8.8
	10	0.0	0.6	3.8	6.6	15.3	29.6
653520	2	0.2	0.0	0.4	1.0	4.1	6.3
	10	0.2	0.5	3.2	8.1	17.6	24.5
653190	2	0.0	0.0	0.5	2.8	5.3	8.1
	10	0.0	0.8	4.2	18.5	22.9	34.5
653550	2	0.0	0.2	0.8	1.6	5.2	8.4
	10	0.0	2.7	6.1	13.6	25.8	36.5
653570	2	0.4	0.0	0.4	2.8	5.2	11.8
	10	0.5	1.2	4.4	14.7	18.9	25.4
653610	2	0.2	0.1	1.0	2.3	5.4	8.2
	10	0.5	1.4	7.9	16.3	25.3	34.8
653300	2	0.0	0.1	0.8	2.0	6.8	3.8
	10	0.0	1.1	6.8	13.6	28.7	20.1
653060	2	0.0	0.7	0.5	1.0	3.6	4.7
	10	0.0	0.7	2.2	8.2	18.0	16.8
655050	2	0.0	0.1	0.3	0.4	2.5	6.5
	10	0.0	0.5	2.8	4.1	12.5	20.1
655160	2	0.0	0.0	0.4	1.4	3.1	7.3
	10	0.0	0.2	3.2	9.0	17.5	25.4
655030	2	0.0	0.3	0.2	1.1	2.6	4.8
	10	0.0	0.3	2.3	5.5	14.7	20.3
655020	2	0.0	0.2	0.2	0.3	1.3	3.4
	10	0.0	0.2	1.2	2.5	8.8	16.3
655070	2	0.0	0.1	1.0	0.8	2.3	8.1
	10	0.0	0.2	4.3	6.4	14.8	24.4
655010	2	0.0	0.0	0.0	0.0	0.2	2.0
	10	0.2	0.2	0.8	1.1	4.2	11.2

GCM - CGCM3; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	6.9	14.7	8.9	4.5	0.5	0.6
	10	30.2	46.3	40.4	23.2	4.2	1.3
655100	2	6.2	14.1	8.5	4.1	0.3	0.1
	10	31.9	53.0	42.9	16.2	2.6	0.5
655220	2	6.4	9.9	7.5	4.9	0.2	0.1
	10	32.5	41.7	40.1	22.2	1.9	0.5
655180	2	6.2	12.4	6.8	2.2	0.3	0.5
	10	29.9	45.5	35.2	12.5	2.7	1.0
653520	2	5.9	7.4	6.0	2.8	0.3	0.2
	10	29.2	33.0	36.7	15.3	1.6	0.2
653190	2	6.5	8.4	10.7	3.7	0.4	0.0
	10	38.6	49.5	53.3	24.0	2.3	0.3
653550	2	5.4	13.1	11.0	5.5	0.9	0.0
	10	37.5	53.8	52.2	33.0	5.2	0.5
653570	2	5.3	6.3	6.8	5.2	0.6	0.0
	10	31.4	34.7	36.8	22.0	2.8	0.8
653610	2	6.2	9.2	7.2	4.3	0.6	0.0
	10	42.2	46.4	44.2	22.6	3.7	0.7
653300	2	5.5	10.0	6.6	3.4	0.1	0.0
	10	35.4	41.1	43.9	25.8	1.0	0.6
653060	2	7.9	11.0	5.6	0.7	0.0	0.0
	10	34.1	42.9	35.8	9.8	0.3	0.2
655050	2	7.4	11.5	5.3	1.5	0.0	0.8
	10	30.7	42.1	32.7	12.5	1.1	0.8
655160	2	6.0	10.4	6.1	2.3	0.0	0.0
	10	35.0	47.8	35.8	13.6	1.4	0.2
655030	2	7.3	9.1	4.6	0.8	0.0	0.3
	10	33.7	40.2	29.1	9.6	0.6	0.9
655020	2	6.3	8.2	4.8	0.6	0.0	0.0
	10	31.1	39.1	26.6	7.8	0.6	0.0
655070	2	10.1	9.8	4.4	0.9	0.0	0.0
	10	37.2	44.6	32.0	9.6	0.4	1.0
655010	2	4.7	8.4	2.9	0.2	0.0	0.7
	10	23.3	30.9	18.2	2.9	0.3	0.9

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	1.2	0.0	1.6	2.0	13.1	13.0
	10	8.2	6.4	10.9	17.7	48.6	49.6
655940	2	0.8	0.1	1.0	2.6	8.4	8.8
	10	3.1	2.2	7.5	15.2	35.9	45.9
655990	2	1.4	0.1	0.8	3.0	10.4	9.1
	10	4.3	2.1	5.6	15.0	36.5	43.6
655780	2	1.4	0.2	2.0	2.6	6.3	13.2
	10	5.0	6.1	14.6	19.4	38.5	50.8
655850	2	0.8	0.4	1.9	2.4	5.9	11.7
	10	4.2	9.6	14.4	18.0	35.7	51.7
655480	2	0.1	0.4	3.0	4.2	4.5	5.8
	10	1.5	5.9	16.5	22.3	25.9	32.8
655600	2	0.4	2.1	1.7	3.5	5.0	2.4
	10	2.5	8.0	12.5	18.3	26.2	23.3
655570	2	1.3	2.4	4.1	5.7	8.3	5.1
	10	4.6	10.4	19.1	24.4	37.2	35.7
655630	2	0.6	0.4	1.6	3.7	4.6	4.3
	10	2.4	4.1	13.3	19.1	26.2	27.5
655620	2	0.4	1.1	2.1	3.8	5.8	2.6
	10	2.7	5.7	15.0	17.6	28.3	25.4
655550	2	1.0	0.9	2.2	5.2	4.1	2.9
	10	2.7	3.8	11.6	18.8	20.2	21.8
655450	2	0.2	0.3	1.5	4.0	7.8	5.7
	10	1.3	4.2	8.8	17.9	27.4	29.5
654720	2	0.1	0.0	1.8	3.4	5.6	2.6
	10	1.5	1.6	6.4	12.2	15.6	21.4
653870	2	0.0	0.0	2.3	1.8	3.9	4.7
	10	0.4	2.4	10.2	13.1	24.3	27.1
653760	2	0.0	0.0	1.8	2.6	5.5	6.2
	10	0.9	1.6	9.6	16.0	21.7	30.5
653800	2	0.1	0.0	3.9	2.8	4.0	3.4
	10	0.8	3.2	13.1	16.8	21.4	24.4
653440	2	0.0	0.1	2.3	4.4	6.5	9.9
	10	2.0	3.9	11.2	19.1	29.6	41.5
653380	2	0.0	0.1	2.0	2.9	5.3	4.2
	10	0.4	3.5	12.5	19.2	25.4	29.7
653350	2	0.0	0.1	2.9	2.8	2.9	4.6
	10	0.6	3.5	12.4	18.5	20.6	30.3
655280	2	0.0	0.1	0.8	1.7	2.4	2.9
	10	1.2	1.3	4.9	15.6	17.2	23.0

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	2.4	2.8	3.8	3.0	4.6	3.8
	10	23.7	31.7	37.0	29.4	32.8	21.5
655940	2	2.0	0.7	1.0	1.4	5.7	2.8
	10	18.5	12.9	14.4	18.0	31.0	15.9
655990	2	1.9	0.4	0.6	1.4	3.9	2.9
	10	17.9	9.4	9.3	17.5	21.8	12.5
655780	2	1.6	0.6	1.0	2.7	6.1	3.4
	10	17.9	8.8	13.7	26.2	30.0	18.4
655850	2	2.0	1.0	1.6	3.9	3.7	2.2
	10	22.6	13.8	20.5	33.2	28.2	15.4
655480	2	3.7	5.7	7.6	4.5	1.4	1.2
	10	30.8	44.3	45.7	27.6	9.0	4.8
655600	2	2.2	1.8	2.9	2.3	0.8	1.0
	10	19.9	20.2	27.5	19.6	8.0	6.2
655570	2	1.5	1.2	3.2	4.5	3.9	0.5
	10	15.6	15.1	25.4	30.8	22.7	7.5
655630	2	2.3	1.1	2.1	2.9	1.9	0.3
	10	16.8	14.2	21.7	23.4	11.3	4.9
655620	2	1.5	0.8	2.4	3.1	1.6	0.9
	10	16.5	11.5	22.3	24.9	9.8	5.0
655550	2	2.5	2.3	3.8	3.4	0.7	0.4
	10	17.6	22.0	27.6	19.9	5.9	3.4
655450	2	2.3	1.8	5.4	3.7	1.0	0.2
	10	16.9	15.6	33.9	25.0	7.6	2.5
654720	2	1.0	0.3	0.7	1.6	0.8	0.4
	10	10.5	4.7	8.5	13.5	5.9	3.8
653870	2	1.2	0.3	1.6	1.5	0.7	0.1
	10	12.4	6.2	15.3	15.2	6.0	2.7
653760	2	5.1	3.5	7.0	3.8	0.4	0.1
	10	33.9	28.7	31.6	22.2	3.6	1.9
653800	2	1.5	0.5	2.0	5.5	0.9	0.6
	10	15.7	8.7	20.9	30.7	9.1	3.4
653440	2	1.8	0.7	2.6	6.2	1.4	0.2
	10	17.6	10.4	22.4	29.5	9.5	3.0
653380	2	3.3	2.1	2.8	5.2	0.5	0.7
	10	25.9	21.2	24.7	25.6	4.8	3.5
653350	2	2.8	2.9	3.9	5.6	0.9	0.1
	10	24.4	25.5	31.1	26.0	3.5	1.1
655280	2	8.2	12.9	9.9	5.6	1.9	0.3
	10	37.4	50.5	46.6	29.4	8.0	1.2

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.4	0.3	1.9	3.1	3.2	4.6
	10	1.0	2.8	7.6	14.6	20.4	25.2
655100	2	0.2	0.0	0.4	1.5	2.6	3.5
	10	0.4	0.8	4.3	9.7	16.8	24.1
655220	2	0.4	0.0	1.0	1.8	2.9	4.5
	10	1.0	1.0	5.3	12.7	18.4	24.0
655180	2	0.0	0.0	0.5	0.7	3.1	4.6
	10	0.0	0.3	4.0	6.3	15.0	25.9
653520	2	0.2	0.0	0.5	0.8	3.2	3.5
	10	0.2	0.3	3.3	7.0	17.5	20.8
653190	2	0.0	0.0	0.5	2.0	3.1	3.9
	10	0.0	0.2	4.5	17.2	22.8	29.4
653550	2	0.0	0.0	1.0	1.0	3.6	4.0
	10	0.0	1.1	6.5	12.1	25.9	31.3
653570	2	0.5	0.0	0.6	2.1	3.8	6.6
	10	0.5	0.6	4.7	13.5	18.5	22.5
653610	2	0.2	0.0	1.1	1.5	3.8	4.2
	10	0.7	0.8	8.2	14.7	25.1	30.0
653300	2	0.0	0.0	0.9	2.8	6.5	4.9
	10	0.0	0.0	7.0	13.3	28.0	30.8
653060	2	0.0	0.0	0.8	1.3	3.3	6.4
	10	0.0	0.0	2.2	7.6	17.9	26.8
655050	2	0.0	0.0	0.5	0.3	1.5	3.2
	10	0.0	0.0	3.2	4.1	11.7	18.9
655160	2	0.0	0.0	0.9	1.4	1.9	3.6
	10	0.0	0.2	3.2	9.1	15.4	23.5
655030	2	0.0	0.0	0.7	0.9	1.5	2.3
	10	0.0	0.3	2.6	5.8	12.9	18.6
655020	2	0.0	0.1	0.2	0.3	1.0	1.3
	10	0.0	0.1	1.2	2.4	7.9	14.7
655070	2	0.0	0.0	1.0	0.6	2.5	4.2
	10	0.0	0.0	4.2	5.7	15.0	22.4
655010	2	0.0	0.0	0.1	0.0	0.4	1.2
	10	0.2	0.1	0.8	0.8	4.9	11.1

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	7.7	13.3	9.6	2.4	0.4	0.2
	10	29.7	42.3	38.5	20.8	4.3	1.2
655100	2	7.1	12.9	8.4	2.1	0.4	0.0
	10	31.9	49.0	41.3	14.9	2.8	0.5
655220	2	6.9	9.9	11.6	3.2	0.7	0.0
	10	33.5	39.5	41.1	19.7	2.5	0.5
655180	2	6.5	14.5	10.1	1.6	0.7	0.0
	10	30.6	46.0	37.9	11.8	3.1	1.0
653520	2	6.2	8.5	9.5	2.2	0.5	0.2
	10	29.8	33.6	40.6	15.0	1.7	0.2
653190	2	6.6	10.5	15.5	3.5	0.6	0.0
	10	39.7	50.9	56.6	22.7	2.6	0.1
653550	2	5.7	16.7	15.9	4.7	1.9	0.0
	10	38.3	54.6	56.4	31.5	5.7	0.0
653570	2	5.7	7.7	10.2	4.8	1.0	0.0
	10	32.6	35.2	39.4	21.3	2.8	0.7
653610	2	6.3	10.5	10.9	3.4	1.4	0.0
	10	43.6	48.2	48.3	21.4	3.8	0.1
653300	2	5.7	8.4	10.9	4.6	0.2	0.0
	10	37.3	39.0	45.7	23.5	1.2	0.9
653060	2	8.9	9.1	8.2	1.2	0.0	0.0
	10	36.3	41.1	37.3	9.0	0.5	0.2
655050	2	8.6	18.3	6.9	1.2	0.2	0.7
	10	30.4	43.1	32.5	11.0	1.2	0.7
655160	2	6.8	16.8	7.8	2.2	0.2	0.0
	10	33.9	49.8	35.2	12.9	1.5	0.2
655030	2	7.4	14.2	6.1	1.1	0.1	0.3
	10	32.5	41.4	28.5	8.6	0.9	0.9
655020	2	6.2	12.8	5.7	0.5	0.1	0.0
	10	30.7	41.4	26.9	7.1	0.6	0.0
655070	2	9.8	17.6	10.5	1.0	0.0	0.1
	10	34.5	45.6	33.7	9.6	0.5	1.0
655010	2	5.1	9.6	3.1	0.2	0.0	0.7
	10	24.4	32.5	19.3	2.9	0.3	0.8

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	1.4	0.7	1.5	1.5	11.2	11.9
	10	8.2	6.8	11.7	16.1	47.1	50.0
655940	2	0.8	0.3	1.3	2.5	5.8	8.6
	10	2.9	3.1	7.6	15.0	33.1	46.0
655990	2	1.2	0.3	0.9	2.3	7.0	9.6
	10	4.0	2.7	5.5	14.7	34.3	44.0
655780	2	1.1	1.2	1.6	2.5	5.1	13.1
	10	4.8	7.7	14.5	19.3	35.7	49.8
655850	2	0.7	2.1	1.6	2.6	4.8	10.9
	10	3.9	10.6	14.5	17.5	33.1	50.4
655480	2	0.1	0.4	3.1	3.3	3.5	6.7
	10	1.4	5.9	16.3	20.6	24.2	34.2
655600	2	0.0	1.2	1.6	2.7	3.8	2.5
	10	2.2	8.2	12.1	17.3	24.4	24.4
655570	2	0.0	1.5	3.7	4.2	6.7	5.4
	10	4.2	10.8	18.9	23.1	34.9	37.2
655630	2	0.0	0.1	1.9	2.7	3.5	4.7
	10	2.2	4.3	13.5	17.5	24.2	28.7
655620	2	0.0	0.5	2.1	2.4	4.6	3.1
	10	2.2	5.7	14.9	16.3	27.0	26.6
655550	2	0.0	0.4	2.2	3.8	2.8	3.7
	10	2.7	3.9	11.8	18.0	19.0	22.7
655450	2	0.0	0.3	1.4	3.5	5.9	6.3
	10	0.7	4.3	8.5	17.6	26.2	29.9
654720	2	0.0	0.0	1.5	4.5	4.7	2.9
	10	0.8	2.2	6.1	12.7	15.4	21.7
653870	2	0.0	0.1	1.7	2.1	3.0	5.0
	10	0.1	3.0	9.8	13.9	23.2	27.7
653760	2	0.0	0.0	1.4	3.0	4.4	6.7
	10	0.0	2.8	9.2	17.2	21.3	30.9
653800	2	0.0	0.0	3.1	3.3	3.6	3.6
	10	0.6	2.3	13.2	17.1	21.8	25.2
653440	2	0.0	0.0	1.9	5.3	6.6	10.1
	10	1.5	3.0	10.8	20.0	29.8	41.9
653380	2	0.0	0.0	1.7	3.3	4.8	5.0
	10	0.2	2.4	12.2	20.2	25.6	30.3
653350	2	0.0	0.0	2.6	3.3	2.8	4.7
	10	0.4	2.9	11.9	19.1	20.5	31.0
655280	2	0.0	0.7	0.6	1.8	2.0	3.3
	10	1.4	1.5	4.7	15.0	16.6	24.1

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.0	2.1	3.8	3.4	4.1	3.6
	10	24.6	29.8	36.9	31.0	31.8	21.1
655940	2	2.5	0.8	0.8	1.2	4.7	2.3
	10	18.5	13.1	14.2	17.5	30.4	15.6
655990	2	2.0	0.5	0.6	1.7	3.2	2.6
	10	18.2	9.1	9.6	17.1	21.3	12.6
655780	2	1.8	0.5	0.9	3.0	4.8	2.7
	10	17.8	9.0	13.6	25.6	28.9	17.5
655850	2	1.9	1.0	1.2	3.5	3.2	1.7
	10	22.0	14.3	20.2	32.4	27.7	14.5
655480	2	3.5	5.1	8.7	5.2	1.3	0.5
	10	31.4	42.6	47.1	29.1	9.0	4.6
655600	2	2.2	1.9	2.8	2.3	1.0	0.9
	10	19.8	20.4	26.8	20.5	7.9	5.7
655570	2	1.5	1.2	3.0	5.1	4.3	0.5
	10	15.2	15.9	25.0	32.6	22.7	7.0
655630	2	2.2	1.1	1.9	3.7	1.8	0.4
	10	16.2	14.2	21.2	24.0	11.3	4.9
655620	2	1.7	0.7	2.2	3.8	1.5	1.0
	10	16.5	11.8	22.0	26.2	9.5	5.1
655550	2	2.2	2.3	4.0	3.9	0.7	0.3
	10	16.8	21.0	27.7	20.7	5.9	3.2
655450	2	2.1	1.7	3.7	3.8	1.2	0.3
	10	15.9	15.8	30.7	25.7	7.8	2.7
654720	2	0.8	0.2	0.4	1.9	1.0	0.9
	10	10.0	4.6	7.0	14.0	6.0	4.0
653870	2	1.3	0.5	0.9	2.0	0.8	0.3
	10	12.4	5.8	12.6	16.1	5.9	3.0
653760	2	4.9	3.6	4.5	4.6	0.4	0.2
	10	33.5	28.4	28.9	22.6	3.6	1.9
653800	2	1.1	0.4	1.8	5.2	1.1	1.0
	10	15.0	8.5	19.2	29.9	9.0	3.5
653440	2	1.4	0.7	1.8	6.2	1.7	0.4
	10	16.9	10.2	20.3	29.3	9.6	3.4
653380	2	3.0	2.0	2.2	4.9	0.4	1.3
	10	24.8	21.1	21.5	25.1	4.6	3.6
653350	2	2.8	2.4	3.1	5.5	0.9	0.1
	10	23.4	25.1	27.8	26.1	3.4	1.0
655280	2	7.5	11.5	9.8	6.2	1.5	0.1
	10	37.6	49.1	47.1	30.5	7.6	1.0

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	1.9	1.6	2.3	3.6	5.2
	10	1.0	2.7	7.4	13.7	21.1	26.0
655100	2	0.1	0.4	0.3	1.1	2.6	3.8
	10	0.4	1.0	4.1	9.0	17.5	25.4
655220	2	0.0	0.1	1.1	1.3	2.8	5.8
	10	1.0	1.2	5.3	12.1	18.0	25.1
655180	2	0.0	0.0	0.4	1.0	2.1	5.7
	10	0.0	0.3	4.3	6.4	14.5	27.2
653520	2	0.2	0.0	0.6	0.8	2.3	4.5
	10	0.2	0.2	3.2	7.4	16.8	21.9
653190	2	0.0	0.0	0.5	2.6	2.8	5.1
	10	0.0	0.1	4.3	18.2	21.4	31.3
653550	2	0.0	0.0	0.9	1.3	2.9	5.4
	10	0.0	0.7	6.6	13.0	23.8	33.4
653570	2	0.4	0.0	0.6	2.4	3.0	8.7
	10	0.5	0.3	4.4	13.9	17.9	23.2
653610	2	0.0	0.0	1.1	2.0	2.7	5.5
	10	0.7	0.8	8.2	14.9	23.4	31.4
653300	2	0.0	0.0	0.9	2.8	5.1	5.1
	10	0.0	0.2	6.8	13.7	26.9	31.0
653060	2	0.0	0.0	0.6	1.3	2.8	6.2
	10	0.0	0.6	2.1	8.0	16.5	27.7
655050	2	0.0	0.0	0.5	0.3	1.4	3.6
	10	0.1	0.4	2.9	4.4	11.8	19.8
655160	2	0.0	0.0	0.6	1.2	1.9	4.1
	10	0.0	0.2	3.2	8.8	16.5	24.4
655030	2	0.0	0.0	0.5	0.9	1.6	2.5
	10	0.0	0.3	2.4	5.5	13.1	19.3
655020	2	0.0	0.2	0.2	0.3	0.9	1.9
	10	0.0	0.2	1.2	2.5	8.2	15.6
655070	2	0.0	0.0	1.0	0.7	2.7	5.6
	10	0.0	0.2	4.2	5.8	15.0	23.5
655010	2	0.0	0.0	0.0	0.0	0.3	1.8
	10	0.1	0.1	0.9	0.9	4.5	12.5

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	7.7	13.5	8.7	3.1	0.6	0.2
	10	30.5	42.4	38.2	22.6	4.6	1.2
655100	2	7.2	12.6	7.4	2.8	0.5	0.0
	10	32.3	48.8	40.6	16.0	2.7	0.5
655220	2	6.3	9.9	8.4	4.1	0.5	0.0
	10	32.6	40.1	39.5	20.9	2.3	0.5
655180	2	5.7	14.4	8.1	2.1	0.8	0.8
	10	30.2	46.3	36.7	12.1	3.2	1.0
653520	2	6.0	8.3	7.2	2.9	0.7	0.2
	10	29.6	34.0	37.5	15.3	1.8	0.2
653190	2	6.3	9.6	11.5	4.1	0.9	0.0
	10	39.5	50.5	53.8	24.1	2.5	0.3
653550	2	5.8	15.5	11.7	5.8	1.9	0.0
	10	37.8	55.1	53.9	33.3	6.0	0.6
653570	2	5.3	7.4	7.9	5.8	1.1	0.1
	10	32.0	35.7	37.6	21.7	3.0	0.8
653610	2	6.0	10.5	7.6	4.5	1.6	0.0
	10	43.0	47.9	45.1	22.8	4.0	0.9
653300	2	6.2	8.6	10.3	5.1	0.1	0.0
	10	37.2	39.9	45.1	24.1	1.4	0.9
653060	2	9.2	9.8	7.4	1.5	0.1	0.0
	10	35.8	41.5	36.7	9.7	0.5	0.2
655050	2	7.9	18.0	7.3	1.5	0.1	0.8
	10	30.3	43.0	32.3	11.6	1.3	0.8
655160	2	6.8	16.7	8.1	2.5	0.1	0.0
	10	33.5	49.7	35.2	13.1	1.6	0.2
655030	2	7.2	14.6	6.3	1.0	0.0	0.1
	10	32.6	41.6	28.6	9.0	0.7	0.9
655020	2	6.3	12.1	5.8	0.7	0.1	0.0
	10	30.2	41.4	26.8	7.4	0.7	0.0
655070	2	8.3	14.3	10.7	1.3	0.0	0.5
	10	33.5	45.5	33.4	10.5	0.5	0.8
655010	2	7.0	8.9	4.3	0.2	0.0	0.7
	10	25.7	32.7	21.6	2.4	0.2	0.8

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	1.2	0.6	1.4	1.9	13.5	14.4
	10	8.2	6.5	10.7	16.9	48.7	50.0
655940	2	0.8	0.2	1.1	2.9	5.9	8.9
	10	3.1	2.9	7.6	15.4	33.6	45.2
655990	2	1.4	0.2	0.8	3.1	7.8	8.5
	10	4.1	2.4	5.5	15.2	34.9	43.1
655780	2	1.4	1.0	1.9	2.8	5.5	11.7
	10	5.0	7.5	14.7	19.6	36.8	48.7
655850	2	0.9	1.9	1.8	1.9	4.7	9.7
	10	4.0	11.0	14.4	17.7	34.5	49.4
655480	2	0.4	0.9	2.7	4.1	4.5	6.3
	10	1.5	6.0	16.4	22.2	26.2	32.8
655600	2	0.4	2.7	1.5	3.3	5.3	2.9
	10	2.4	8.3	12.4	18.6	26.7	24.8
655570	2	0.6	3.6	3.8	5.4	9.3	5.8
	10	4.5	11.0	19.5	24.3	38.1	36.8
655630	2	0.5	0.6	1.8	3.1	5.4	4.9
	10	2.2	4.5	13.7	18.9	26.9	28.6
655620	2	0.2	1.5	2.1	3.5	6.7	3.6
	10	2.5	5.8	15.1	17.4	29.5	27.0
655550	2	0.8	1.0	2.4	4.8	4.5	3.6
	10	2.7	4.0	12.2	18.7	20.8	22.5
655450	2	0.0	0.0	1.1	4.1	6.1	6.2
	10	1.2	4.0	8.3	17.8	27.1	30.0
654720	2	0.0	0.0	1.9	4.4	6.4	2.8
	10	1.1	2.3	6.6	12.7	15.8	21.1
653870	2	0.0	0.1	2.2	1.9	4.4	4.5
	10	0.1	3.3	10.2	14.2	24.9	27.1
653760	2	0.0	0.0	2.1	3.2	5.4	6.4
	10	0.3	3.2	10.2	16.9	22.3	30.5
653800	2	0.1	0.5	5.0	3.3	4.9	3.6
	10	0.7	3.7	14.1	17.0	22.3	25.1
653440	2	0.1	0.9	2.8	4.4	7.8	10.4
	10	2.2	4.3	12.4	19.7	30.6	42.3
653380	2	0.0	0.5	2.8	3.3	6.1	5.1
	10	0.5	3.7	13.8	19.8	26.7	30.5
653350	2	0.0	0.8	3.4	3.1	3.4	4.9
	10	0.7	3.8	13.4	18.8	22.1	31.1
655280	2	0.0	0.7	0.7	2.2	2.5	3.7
	10	0.8	1.4	4.8	16.4	17.6	24.5

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	2.3	2.8	3.6	2.8	3.8	3.2
	10	23.2	33.1	37.3	29.9	30.1	20.1
655940	2	1.9	1.0	0.9	1.7	3.8	1.8
	10	18.2	14.5	13.7	19.0	28.4	14.2
655990	2	1.8	0.7	0.5	2.3	2.7	2.0
	10	16.9	10.3	9.1	18.7	19.7	11.4
655780	2	1.6	0.7	0.9	3.7	4.4	2.3
	10	17.6	9.8	13.1	27.6	28.6	16.5
655850	2	1.8	1.2	1.5	4.7	3.2	1.7
	10	21.7	16.0	20.2	34.2	26.9	13.3
655480	2	3.3	6.5	7.7	5.7	1.2	0.8
	10	31.7	45.9	46.0	28.9	8.5	4.5
655600	2	1.9	2.0	2.9	2.5	0.8	1.1
	10	19.5	22.4	26.7	19.7	7.5	5.8
655570	2	1.5	1.4	2.8	4.6	3.4	0.7
	10	15.5	16.8	24.1	31.5	21.8	7.3
655630	2	2.1	1.3	2.0	2.9	1.7	0.5
	10	15.9	15.8	20.6	23.5	10.6	5.1
655620	2	1.4	0.7	2.2	3.4	1.5	0.9
	10	16.4	12.2	21.0	25.4	9.2	5.0
655550	2	2.2	2.8	3.5	3.3	0.6	0.5
	10	16.7	22.8	26.5	20.7	5.5	3.4
655450	2	1.9	1.8	5.0	3.9	1.1	0.3
	10	16.3	17.3	31.5	25.2	7.3	2.7
654720	2	1.1	0.3	0.7	1.8	1.1	0.9
	10	9.8	5.6	8.4	14.1	5.8	3.6
653870	2	1.1	0.5	1.4	2.1	0.8	0.4
	10	12.3	6.6	14.8	16.3	5.8	2.8
653760	2	4.7	4.5	6.3	4.8	0.4	0.3
	10	32.9	30.7	31.7	22.8	3.6	1.8
653800	2	1.2	0.5	2.0	5.4	1.2	1.0
	10	16.0	8.5	20.8	30.6	9.2	3.4
653440	2	1.9	0.9	2.5	6.0	1.9	0.3
	10	18.1	10.9	22.2	29.1	9.7	3.1
653380	2	3.2	1.9	2.9	5.4	0.5	1.0
	10	25.5	21.3	24.5	25.2	5.1	3.5
653350	2	2.8	2.6	4.6	5.7	1.0	0.1
	10	24.3	25.7	31.4	25.9	3.6	1.1
655280	2	8.5	13.3	9.4	6.4	1.3	0.4
	10	38.1	51.5	46.8	30.7	7.2	1.2

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	2.0	1.5	3.2	3.5	6.7
	10	0.9	2.8	7.4	14.8	20.9	27.0
655100	2	0.1	0.5	0.4	1.4	2.8	4.3
	10	0.4	0.8	3.8	9.9	17.7	26.8
655220	2	0.0	0.2	1.2	1.5	3.1	6.4
	10	1.0	1.1	5.5	12.6	19.0	25.4
655180	2	0.0	0.0	0.5	0.8	2.9	5.9
	10	0.0	0.3	4.2	6.0	15.4	27.6
653520	2	0.2	0.0	0.6	0.7	3.1	5.0
	10	0.2	0.3	3.4	6.5	17.8	22.4
653190	2	0.0	0.0	0.8	2.2	3.3	5.5
	10	0.0	0.4	5.0	16.8	22.8	32.2
653550	2	0.0	0.1	1.2	1.1	4.0	5.6
	10	0.0	1.5	7.0	11.7	26.8	33.5
653570	2	0.3	0.0	0.7	1.6	3.9	8.8
	10	0.5	0.6	4.9	13.2	19.2	23.4
653610	2	0.0	0.1	1.4	1.7	3.6	5.4
	10	0.6	0.9	8.8	14.2	25.6	32.0
653300	2	0.0	0.0	1.2	2.2	7.2	5.7
	10	0.0	0.4	7.7	12.9	28.9	31.6
653060	2	0.0	0.1	0.9	1.1	3.9	7.5
	10	0.0	0.6	2.3	7.8	18.4	27.6
655050	2	0.0	0.0	0.5	0.4	1.8	5.0
	10	0.0	0.3	3.0	4.3	12.5	20.8
655160	2	0.0	0.0	0.8	1.7	2.3	5.3
	10	0.0	0.2	3.2	9.5	16.9	25.3
655030	2	0.0	0.0	0.4	1.0	1.8	3.2
	10	0.0	0.3	2.6	5.9	13.8	20.5
655020	2	0.0	0.2	0.3	0.3	1.0	2.3
	10	0.0	0.2	1.2	2.6	8.4	16.6
655070	2	0.0	0.0	0.9	0.7	2.8	7.5
	10	0.0	0.2	4.2	5.9	15.7	25.0
655010	2	0.0	0.0	0.1	0.0	0.4	1.0
	10	0.2	0.2	0.9	0.8	5.0	11.5

GCM - MIROC; Downscaling Method - Wilby et. al, 1998

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	8.0	14.1	8.9	3.5	0.0	0.9
	10	30.3	42.9	37.3	23.8	3.5	1.2
655100	2	7.2	13.2	7.7	3.0	0.1	0.2
	10	32.0	49.7	39.9	16.2	2.3	0.5
655220	2	7.0	10.0	9.2	5.0	0.1	0.2
	10	33.5	40.3	39.2	21.9	1.8	0.6
655180	2	7.2	14.2	8.4	2.4	0.4	0.6
	10	30.5	46.9	36.6	12.7	3.1	0.9
653520	2	6.9	8.7	7.5	3.0	0.3	0.2
	10	30.0	34.7	38.3	15.9	1.8	0.2
653190	2	7.1	10.7	12.4	4.2	0.4	0.0
	10	40.2	52.0	54.3	24.2	2.5	0.3
653550	2	6.1	16.2	12.9	6.3	1.1	0.0
	10	38.8	56.1	54.3	34.0	5.7	0.7
653570	2	6.6	8.4	8.1	6.6	0.5	0.1
	10	32.5	35.7	38.0	22.2	2.8	0.7
653610	2	6.7	11.2	8.4	4.7	0.9	0.0
	10	43.9	48.7	46.5	23.3	3.9	0.7
653300	2	6.7	8.8	11.3	7.7	0.2	0.0
	10	38.3	39.8	45.8	26.0	1.3	0.9
653060	2	10.1	9.7	8.0	2.3	0.1	0.0
	10	36.3	41.7	37.1	10.5	0.4	0.2
655050	2	8.8	14.2	5.8	2.1	0.1	0.7
	10	30.3	42.1	31.5	12.9	1.1	0.7
655160	2	6.8	13.7	7.2	2.8	0.1	0.1
	10	33.6	48.2	34.5	14.1	1.3	0.2
655030	2	7.2	11.2	5.5	1.5	0.1	0.4
	10	32.4	40.4	28.1	10.2	0.9	0.7
655020	2	6.3	9.8	5.6	1.0	0.1	0.0
	10	30.4	39.6	26.2	8.0	0.6	0.0
655070	2	7.8	14.4	8.3	1.6	0.0	0.1
	10	33.4	45.1	32.0	10.8	0.5	0.7
655010	2	4.4	7.6	3.5	0.3	0.1	0.7
	10	23.7	32.0	20.4	3.2	0.2	0.7

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.4	0.8	0.9	3.4	9.2	13.0
	10	6.1	7.7	10.8	20.0	47.8	50.0
655940	2	0.1	0.3	0.5	4.7	6.2	8.7
	10	2.1	3.2	6.9	17.0	34.9	45.2
655990	2	0.2	0.3	0.2	4.7	8.1	8.8
	10	3.3	2.7	4.7	16.4	35.9	43.0
655780	2	0.4	0.8	1.1	3.8	5.0	13.4
	10	3.8	7.4	13.6	21.9	38.8	48.9
655850	2	0.1	1.5	0.8	2.8	4.8	11.8
	10	2.7	10.6	13.2	19.4	36.3	50.4
655480	2	0.0	0.5	2.4	5.9	4.6	7.0
	10	1.1	6.4	17.1	23.5	25.8	34.2
655600	2	0.1	2.2	1.2	4.2	4.5	3.3
	10	2.2	8.7	13.8	19.8	24.9	26.2
655570	2	0.2	3.1	3.5	6.8	7.8	6.8
	10	4.1	11.4	21.1	26.2	36.4	38.6
655630	2	0.3	0.5	1.4	3.7	4.7	5.6
	10	2.2	4.8	14.9	20.1	25.6	29.6
655620	2	0.1	1.2	1.3	4.0	5.7	4.0
	10	2.4	6.3	16.0	18.6	27.9	28.4
655550	2	0.3	0.9	1.8	5.8	3.7	3.8
	10	2.5	4.1	12.7	19.6	19.6	23.3
655450	2	0.2	0.8	1.0	5.3	6.2	7.1
	10	1.2	4.6	8.4	19.1	26.6	30.5
654720	2	0.4	0.2	1.3	5.0	5.2	3.1
	10	1.3	2.7	6.5	13.2	15.6	21.1
653870	2	0.0	0.5	2.0	2.1	3.0	4.5
	10	0.7	3.7	10.2	15.2	24.9	26.4
653760	2	0.0	0.3	1.5	3.7	4.5	6.2
	10	1.1	3.9	9.8	17.9	21.9	30.1
653800	2	0.2	0.6	3.9	4.4	4.9	3.4
	10	0.7	4.5	14.1	18.2	21.8	25.6
653440	2	0.3	1.3	2.3	7.1	8.1	10.1
	10	2.1	5.0	11.9	20.6	30.4	43.1
653380	2	0.0	0.9	2.4	4.6	6.1	4.7
	10	0.5	4.3	13.1	21.2	26.1	31.4
653350	2	0.1	1.4	3.0	4.4	3.4	4.7
	10	0.8	4.2	13.3	20.1	21.6	32.1
655280	2	0.0	0.3	0.3	2.5	4.1	6.2
	10	1.5	1.5	5.2	17.0	19.0	28.1

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.0	7.9	9.0	4.8	2.7	2.1
	10	27.6	39.9	44.3	36.8	28.3	17.8
655940	2	2.7	4.6	2.7	2.3	3.2	1.2
	10	19.7	18.8	18.7	22.4	27.6	12.5
655990	2	2.4	3.0	1.9	2.9	2.2	1.2
	10	19.1	14.3	12.8	21.9	19.0	10.6
655780	2	3.3	2.0	3.0	6.0	5.6	1.5
	10	20.3	11.6	17.0	30.6	28.5	14.6
655850	2	3.1	3.3	4.3	7.5	4.3	1.0
	10	24.8	19.1	24.9	37.6	27.3	11.4
655480	2	5.2	14.5	14.9	2.9	1.0	1.1
	10	34.8	55.0	51.2	27.2	8.1	4.2
655600	2	2.6	6.3	6.0	1.1	0.5	1.1
	10	21.9	29.1	32.2	19.8	6.5	5.4
655570	2	2.1	4.5	5.7	2.6	2.3	0.5
	10	17.7	22.9	28.8	31.8	19.4	6.7
655630	2	2.8	4.4	4.2	1.8	0.8	0.5
	10	18.5	20.9	25.4	24.4	9.5	4.4
655620	2	2.0	3.0	4.8	2.0	0.7	1.0
	10	19.0	17.5	25.6	25.7	8.2	4.6
655550	2	3.1	7.8	7.9	2.0	0.4	0.5
	10	19.1	28.9	31.0	20.8	5.2	2.9
655450	2	2.5	5.7	11.6	4.1	0.6	0.0
	10	19.0	21.6	37.6	25.6	6.2	2.4
654720	2	1.5	1.2	1.2	2.1	0.7	0.9
	10	11.7	8.3	9.6	13.5	5.3	3.9
653870	2	2.1	1.9	3.0	2.1	0.6	0.3
	10	14.0	10.0	17.9	15.6	5.2	3.1
653760	2	7.1	14.7	11.3	4.6	0.3	0.3
	10	36.9	37.4	35.1	21.7	3.2	1.9
653800	2	2.1	2.2	3.9	4.4	0.8	0.8
	10	19.4	13.1	24.6	29.1	7.7	3.3
653440	2	2.8	3.4	4.4	4.7	1.2	0.2
	10	20.5	15.8	26.4	27.8	8.4	3.1
653380	2	4.8	7.9	4.8	4.0	0.4	0.8
	10	29.9	27.8	29.1	24.1	4.3	3.6
653350	2	4.4	10.4	7.5	4.4	0.7	0.1
	10	28.1	32.9	35.2	25.0	3.1	1.2
655280	2	10.1	11.1	10.3	7.0	0.3	0.3
	10	38.8	51.7	43.3	30.8	7.0	1.0

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	0.5	1.1	2.8	3.5	9.3
	10	0.9	2.9	7.8	15.5	21.4	28.8
655100	2	0.1	0.0	0.2	1.3	2.7	6.1
	10	0.3	0.9	3.9	10.4	18.0	29.4
655220	2	0.0	0.1	0.4	2.7	2.8	7.8
	10	0.7	1.0	5.3	14.1	18.7	26.8
655180	2	0.0	0.0	0.2	1.4	2.7	5.7
	10	0.0	0.6	3.3	6.5	15.2	28.4
653520	2	0.2	0.0	0.2	1.8	2.8	4.0
	10	0.2	0.7	3.0	8.1	17.7	23.0
653190	2	0.0	0.0	0.2	4.6	3.6	4.8
	10	0.0	0.9	4.0	19.1	22.7	33.3
653550	2	0.0	0.0	0.2	2.4	3.7	4.6
	10	0.0	3.1	5.9	13.4	26.1	34.6
653570	2	0.3	0.0	0.3	4.2	4.0	8.3
	10	0.5	1.3	4.2	14.8	18.8	23.7
653610	2	0.0	0.0	0.5	3.9	3.5	5.0
	10	0.5	1.7	7.4	16.4	25.3	32.9
653300	2	0.0	0.0	0.2	3.4	5.5	4.7
	10	0.0	1.2	5.6	13.6	27.8	31.8
653060	2	0.0	0.7	0.2	1.7	2.7	7.1
	10	0.0	0.7	2.1	8.2	17.5	27.7
655050	2	0.0	0.3	0.1	0.0	2.2	3.5
	10	0.1	0.6	2.3	4.1	13.5	19.9
655160	2	0.0	0.0	0.2	0.5	3.8	3.6
	10	0.0	0.2	2.9	9.2	18.5	25.1
655030	2	0.0	0.3	0.2	0.2	3.1	2.4
	10	0.0	0.3	2.3	5.9	15.5	19.9
655020	2	0.0	0.2	0.0	0.1	1.4	1.6
	10	0.0	0.2	1.0	2.6	9.4	16.2
655070	2	0.0	0.0	1.5	1.2	4.3	3.5
	10	0.0	0.0	4.4	6.7	16.3	23.4
655010	2	0.0	0.0	0.0	0.0	0.1	2.8
	10	0.1	0.1	0.0	0.9	3.0	12.9

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	9.0	12.6	8.3	3.8	0.1	1.0
	10	31.3	43.2	37.1	23.5	3.8	1.2
655100	2	8.7	12.4	7.9	3.0	0.1	0.1
	10	33.3	49.8	39.4	16.4	2.6	0.5
655220	2	7.3	9.1	12.1	4.4	0.3	0.2
	10	33.7	40.2	40.9	21.7	2.1	0.5
655180	2	8.5	10.2	9.6	1.7	1.2	0.9
	10	29.9	44.8	38.4	12.3	2.7	1.0
653520	2	7.9	6.4	8.8	2.2	0.8	0.2
	10	29.0	32.4	40.1	15.3	1.6	0.2
653190	2	9.5	7.4	14.4	2.7	0.8	0.0
	10	39.5	47.5	56.3	23.8	2.3	0.4
653550	2	8.2	11.1	13.8	4.4	2.4	0.0
	10	38.8	53.4	55.8	32.2	5.6	0.8
653570	2	7.7	5.5	9.0	4.7	1.2	0.0
	10	31.9	34.1	39.7	21.6	2.9	0.8
653610	2	8.8	7.3	9.6	3.1	1.7	0.0
	10	43.3	45.5	47.6	22.5	3.6	1.1
653300	2	7.0	6.8	11.6	4.5	0.2	0.0
	10	36.9	37.4	46.9	24.4	1.5	0.9
653060	2	10.4	7.6	9.2	1.0	0.1	0.0
	10	35.6	39.3	38.6	9.7	0.5	0.2
655050	2	8.6	12.6	9.1	1.9	0.0	0.8
	10	29.5	41.7	32.3	11.3	1.3	0.8
655160	2	6.9	11.7	10.0	2.8	0.0	0.1
	10	33.4	46.7	35.3	13.0	1.6	0.2
655030	2	7.8	9.5	7.7	1.7	0.0	0.1
	10	32.3	39.1	28.8	9.2	0.9	0.8
655020	2	7.0	8.4	7.3	0.9	0.0	0.0
	10	29.7	38.0	26.7	7.1	0.7	0.0
655070	2	9.6	10.9	9.3	2.6	0.0	0.2
	10	33.7	42.7	32.2	10.5	0.0	0.9
655010	2	4.3	4.9	5.9	0.0	0.0	0.9
	10	23.1	31.0	21.0	0.0	0.3	0.9

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.6	0.4	1.6	4.5	11.5	15.1
	10	6.7	6.3	11.5	20.0	47.9	52.2
655940	2	0.1	0.2	1.0	4.0	7.6	8.7
	10	2.2	2.7	7.7	16.9	35.7	47.7
655990	2	0.2	0.3	0.5	4.5	9.1	9.6
	10	2.9	2.5	5.4	16.8	36.4	45.0
655780	2	0.3	0.5	2.1	3.5	6.7	14.4
	10	3.5	6.7	14.8	22.3	39.2	49.8
655850	2	0.1	0.8	2.0	3.1	6.2	12.6
	10	2.7	9.7	14.8	20.5	36.6	51.2
655480	2	0.1	0.8	4.5	6.8	3.8	8.3
	10	1.3	6.5	18.3	24.2	26.5	34.9
655600	2	0.2	3.5	1.8	4.1	4.5	3.6
	10	2.2	9.0	13.8	20.1	25.6	25.4
655570	2	0.8	4.1	4.6	6.8	7.4	6.8
	10	4.2	12.0	20.9	26.5	35.8	38.2
655630	2	0.4	0.8	1.9	3.9	4.3	5.8
	10	2.1	5.1	15.7	20.3	25.8	29.5
655620	2	0.2	1.7	2.3	4.1	5.8	4.0
	10	2.4	6.5	16.9	19.2	28.2	27.9
655550	2	0.4	1.5	2.6	5.7	3.6	4.3
	10	2.4	4.3	13.2	20.0	19.8	22.8
655450	2	0.4	0.7	1.7	4.7	6.0	7.1
	10	1.2	4.8	8.8	18.6	26.3	31.0
654720	2	0.4	0.3	1.4	4.7	6.1	3.5
	10	1.4	2.9	6.6	12.9	15.7	22.2
653870	2	0.0	0.5	2.0	2.2	4.2	5.7
	10	0.6	3.7	10.5	14.5	24.9	27.9
653760	2	0.0	0.2	1.5	3.5	5.7	8.3
	10	1.1	3.8	10.1	17.6	22.1	31.3
653800	2	0.1	0.8	3.5	4.4	4.3	4.0
	10	0.7	4.6	14.2	18.1	23.0	25.9
653440	2	0.1	1.3	1.9	6.4	7.6	11.8
	10	2.1	4.9	11.8	20.6	31.3	43.3
653380	2	0.0	0.8	2.0	4.3	5.6	5.3
	10	0.4	4.4	13.6	21.5	27.2	31.4
653350	2	0.0	1.6	2.9	4.4	3.3	5.7
	10	0.7	4.4	13.5	20.0	22.1	32.4
655280	2	0.2	0.9	1.1	3.0	3.4	5.2
	10	1.5	1.6	5.4	17.0	18.5	26.5

GCM - MRI; Downscaling Method - Wilby et. al, 1998

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	2.5	5.0	7.0	5.4	2.9	2.7
	10	26.6	38.4	43.4	37.4	27.4	18.3
655940	2	2.1	2.4	1.8	3.0	3.6	1.5
	10	18.8	17.5	17.9	23.0	26.8	13.0
655990	2	1.8	1.6	1.1	3.4	2.5	1.6
	10	18.2	13.1	11.8	22.1	18.5	10.7
655780	2	2.3	1.2	2.3	6.4	5.3	2.5
	10	19.2	11.6	15.4	30.6	27.3	16.0
655850	2	2.1	2.0	3.0	7.7	4.1	2.0
	10	23.6	18.5	23.0	37.7	26.1	12.6
655480	2	5.5	13.1	12.8	2.2	0.9	1.0
	10	35.2	52.5	50.8	25.2	8.0	4.3
655600	2	2.5	6.1	4.8	1.5	0.7	0.9
	10	21.9	28.7	31.9	19.4	6.8	5.7
655570	2	2.2	4.5	4.8	2.6	3.1	0.5
	10	17.5	22.5	28.9	30.5	20.9	6.9
655630	2	3.1	4.4	3.7	2.0	1.5	0.3
	10	18.1	20.8	24.6	22.8	10.3	4.5
655620	2	1.9	2.9	4.2	1.9	1.2	0.8
	10	19.0	17.8	24.9	24.0	8.5	4.8
655550	2	3.3	7.7	6.4	2.3	0.5	0.2
	10	19.4	28.2	30.9	20.2	5.2	3.3
655450	2	2.4	5.0	9.9	2.7	0.6	0.3
	10	18.8	21.7	37.8	24.1	6.2	3.0
654720	2	1.7	1.1	1.2	1.6	0.5	0.4
	10	12.4	8.5	10.0	13.7	5.3	3.9
653870	2	2.0	1.9	2.5	2.0	0.4	0.1
	10	15.3	10.5	18.4	15.5	5.3	3.1
653760	2	8.2	14.1	11.2	4.0	0.2	0.2
	10	38.8	37.2	35.2	22.1	3.0	2.0
653800	2	3.0	2.6	3.7	4.1	0.8	0.6
	10	20.4	14.3	24.6	29.0	8.0	3.3
653440	2	4.4	3.6	4.7	4.5	1.0	0.3
	10	22.3	16.0	26.4	28.0	8.8	3.2
653380	2	7.9	9.2	4.3	4.1	0.5	0.8
	10	31.0	29.3	29.0	24.3	4.3	3.6
653350	2	7.1	11.9	6.6	4.2	0.6	0.1
	10	29.8	34.4	36.0	24.6	3.4	1.1
655280	2	9.2	10.8	9.7	6.0	0.7	0.1
	10	36.1	51.1	44.2	29.9	7.4	0.9

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	0.9	2.0	4.7	4.2	8.1
	10	0.7	3.1	8.7	16.3	22.2	27.7
655100	2	0.1	0.1	0.3	1.8	3.2	5.3
	10	0.3	1.0	4.9	11.4	18.9	27.9
655220	2	0.0	0.2	1.2	3.6	3.1	8.3
	10	0.9	1.2	5.6	15.4	18.9	26.4
655180	2	0.0	0.2	0.2	1.8	2.7	6.5
	10	0.0	0.6	3.5	7.5	15.2	28.4
653520	2	0.2	0.2	0.3	2.3	2.6	5.2
	10	0.2	0.8	3.3	8.8	17.3	23.1
653190	2	0.0	0.3	0.2	5.6	3.2	5.9
	10	0.0	1.0	4.2	20.2	22.5	33.2
653550	2	0.0	0.9	0.4	3.6	3.4	5.3
	10	0.0	2.9	6.4	14.5	25.5	35.4
653570	2	0.5	0.5	0.3	4.4	3.7	9.4
	10	0.5	1.4	4.2	15.6	18.6	23.9
653610	2	0.0	0.8	0.5	4.6	3.3	5.9
	10	0.6	1.8	8.1	18.1	24.6	33.1
653300	2	0.0	0.5	0.6	5.3	5.8	4.2
	10	0.0	1.4	6.5	14.8	28.3	29.9
653060	2	0.0	0.7	0.5	2.7	3.1	6.5
	10	0.0	0.7	2.3	8.9	18.2	27.2
655050	2	0.0	0.0	0.4	0.2	1.9	4.2
	10	0.0	0.0	3.4	4.2	13.3	21.2
655160	2	0.0	0.0	0.7	1.0	2.8	4.5
	10	0.0	0.1	3.5	9.7	18.9	26.2
655030	2	0.0	0.0	0.7	0.7	2.2	3.0
	10	0.0	0.0	2.8	6.0	15.9	21.5
655020	2	0.0	0.1	0.3	0.1	1.2	1.8
	10	0.0	0.1	1.3	2.8	9.5	17.4
655070	2	0.0	0.0	0.0	1.6	4.4	5.3
	10	0.0	0.0	3.8	7.1	17.0	24.8
655010	2	0.0	0.0	0.0	0.0	0.1	0.5
	10	0.1	0.1	0.0	0.4	3.5	12.5

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES A2 (2046 - 2065)
DRWH Reliability (%)

per capita roof area							
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	8.3	12.3	8.6	2.5	0.2	0.7
	10	28.8	42.8	37.0	22.5	4.2	1.2
655100	2	8.1	12.3	7.9	2.7	0.1	0.1
	10	30.3	48.9	39.3	16.1	2.7	0.5
655220	2	7.2	9.9	13.2	3.5	0.3	0.0
	10	34.3	39.8	40.7	20.6	2.0	0.5
655180	2	7.4	12.2	10.4	1.6	0.7	0.8
	10	30.4	45.4	37.9	11.3	2.8	1.0
653520	2	6.9	7.1	8.6	2.0	0.5	0.2
	10	30.0	33.0	39.1	14.3	1.6	0.2
653190	2	7.8	8.8	14.8	2.7	0.7	0.0
	10	40.3	48.1	55.9	22.2	2.3	0.3
653550	2	6.6	13.9	14.8	3.8	1.9	0.0
	10	38.8	53.9	55.2	30.6	5.1	0.7
653570	2	6.8	6.7	9.6	3.8	0.9	0.2
	10	32.9	34.0	39.1	20.8	2.7	0.7
653610	2	7.4	9.7	10.0	2.8	1.3	0.0
	10	43.6	46.1	47.1	21.4	3.4	0.8
653300	2	4.9	7.0	9.2	2.5	0.1	0.3
	10	35.7	37.8	46.1	22.4	1.3	0.9
653060	2	7.7	8.0	7.2	0.4	0.0	0.1
	10	33.9	39.8	38.0	8.5	0.4	0.2
655050	2	9.4	12.7	7.0	1.7	0.2	0.8
	10	30.4	41.4	32.7	11.2	1.3	0.8
655160	2	8.1	10.8	8.4	2.6	0.2	0.1
	10	33.9	46.6	35.6	12.9	1.6	0.2
655030	2	8.5	9.5	5.9	1.0	0.1	0.2
	10	32.8	39.0	29.0	8.6	1.0	0.9
655020	2	7.9	8.7	5.8	0.7	0.2	0.0
	10	30.7	37.7	26.7	7.0	0.7	0.0
655070	2	8.8	9.8	6.2	2.0	0.0	0.0
	10	34.3	42.3	32.2	10.1	0.0	0.5
655010	2	4.2	9.3	5.5	0.0	0.1	0.9
	10	24.2	31.5	18.8	0.0	0.2	0.9

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	0.5	0.5	0.8	3.9	9.1	15.5
	10	6.5	7.3	11.0	19.7	47.1	51.9
655940	2	0.2	0.3	0.9	4.8	5.5	10.4
	10	2.3	3.1	7.6	16.6	34.5	49.7
655990	2	0.3	0.2	0.4	4.8	7.6	11.8
	10	3.2	2.7	5.2	16.5	35.2	46.7
655780	2	0.4	0.5	1.5	3.9	6.6	15.7
	10	3.8	7.8	14.6	21.9	38.9	51.2
655850	2	0.2	1.7	1.4	3.7	6.7	12.8
	10	2.7	10.6	14.4	20.4	36.7	52.8
655480	2	0.0	0.4	4.1	8.2	4.2	10.4
	10	1.1	6.1	17.7	25.2	25.8	36.0
655600	2	0.1	2.9	1.6	4.8	4.8	3.8
	10	2.1	8.5	13.4	20.0	24.9	26.4
655570	2	0.4	3.7	4.1	7.6	7.7	8.4
	10	3.9	11.4	20.9	26.2	35.0	39.0
655630	2	0.2	0.6	1.8	5.0	4.6	6.6
	10	1.9	4.6	14.6	20.6	25.2	30.0
655620	2	0.1	1.5	2.2	4.9	5.8	4.9
	10	2.2	6.1	16.1	19.0	27.6	29.1
655550	2	0.3	1.3	2.7	7.0	3.9	5.1
	10	2.4	4.2	12.8	19.9	19.4	24.0
655450	2	0.3	0.7	1.3	5.9	6.0	10.1
	10	1.4	4.5	8.5	19.6	26.9	32.5
654720	2	0.4	0.2	1.3	6.4	5.8	4.8
	10	1.4	2.7	6.3	13.5	16.0	24.0
653870	2	0.0	0.5	1.6	3.0	3.3	8.0
	10	0.7	3.7	9.8	16.1	25.3	29.9
653760	2	0.0	0.2	1.4	4.7	4.8	11.1
	10	1.3	3.8	9.4	18.6	22.5	32.7
653800	2	0.2	0.8	4.4	5.5	4.0	6.7
	10	0.7	4.7	14.0	18.9	22.3	28.3
653440	2	0.4	1.8	2.2	7.5	7.0	17.3
	10	2.2	4.9	12.1	21.1	30.4	45.1
653380	2	0.2	1.2	2.2	5.0	5.1	9.1
	10	0.6	4.4	13.7	22.2	26.6	32.5
653350	2	0.1	1.7	3.2	5.5	2.8	8.4
	10	0.6	4.3	13.3	21.0	21.5	33.8
655280	2	0.1	0.3	1.5	3.2	3.6	6.5
	10	1.4	1.5	5.6	16.7	19.4	27.6

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	3.3	3.4	2.8	4.4	2.4	3.8
	10	26.4	35.6	38.8	35.1	28.9	18.9
655940	2	1.6	1.8	0.8	1.2	3.3	1.9
	10	18.3	16.7	15.8	20.5	27.0	13.7
655990	2	1.7	1.2	0.5	1.7	2.1	2.3
	10	18.0	12.6	10.3	19.9	19.5	11.0
655780	2	1.9	0.7	0.9	3.4	4.6	3.1
	10	19.0	10.8	14.9	28.1	27.4	16.2
655850	2	2.2	1.2	1.3	3.9	3.3	2.1
	10	22.9	16.8	22.6	35.5	25.3	13.3
655480	2	5.4	13.3	13.8	2.9	0.7	1.3
	10	34.7	53.1	50.2	26.6	7.7	4.1
655600	2	2.5	5.5	4.1	1.5	0.5	2.1
	10	21.8	27.5	30.4	19.6	6.4	5.5
655570	2	1.9	3.7	4.0	3.0	2.4	1.5
	10	17.6	21.6	27.5	31.2	20.4	6.8
655630	2	3.0	3.8	3.1	2.0	0.7	1.2
	10	18.1	20.1	23.7	23.1	9.6	4.8
655620	2	1.8	2.2	3.4	2.2	0.8	1.7
	10	18.3	16.4	24.0	25.2	8.5	4.7
655550	2	2.9	6.6	5.2	2.6	0.4	0.8
	10	19.1	27.0	29.6	20.4	4.9	3.1
655450	2	2.5	4.0	8.2	3.3	0.4	0.0
	10	18.5	20.8	37.0	24.0	6.2	2.3
654720	2	1.7	1.1	0.7	1.3	0.4	0.6
	10	11.8	7.9	8.9	13.1	5.1	3.6
653870	2	2.3	1.5	2.2	1.2	0.3	0.2
	10	14.9	9.8	16.6	15.0	5.3	2.8
653760	2	8.3	12.5	8.9	3.2	0.2	0.2
	10	38.0	35.9	33.6	21.7	3.1	1.9
653800	2	3.4	1.8	3.0	4.1	0.5	0.5
	10	19.2	12.6	22.8	28.5	6.9	3.3
653440	2	4.5	3.0	3.6	4.7	0.7	0.2
	10	21.4	14.7	25.2	27.3	7.8	2.9
653380	2	7.3	7.0	3.7	3.7	0.3	0.6
	10	30.0	28.0	27.4	23.8	3.5	3.5
653350	2	6.8	8.9	6.0	4.2	0.4	0.0
	10	29.0	32.5	34.3	24.2	3.0	1.0
655280	2	9.5	10.7	11.2	6.0	1.2	0.2
	10	37.2	50.1	46.5	31.4	7.6	0.9

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	0.1	0.7	1.5	4.4	3.6	7.6
	10	0.8	2.9	8.2	16.0	21.7	27.5
655100	2	0.1	0.1	0.2	2.0	2.8	5.7
	10	0.3	0.9	4.5	11.0	18.4	27.7
655220	2	0.0	0.3	0.9	2.5	3.0	6.5
	10	0.4	0.9	5.6	14.3	19.6	26.6
655180	2	0.0	0.2	0.2	1.3	3.1	5.7
	10	0.0	0.6	4.0	6.6	15.4	29.2
653520	2	0.2	0.1	0.2	1.5	3.0	4.4
	10	0.2	0.6	3.2	7.9	17.9	23.8
653190	2	0.0	0.1	0.2	4.3	3.4	4.6
	10	0.0	0.9	4.5	18.7	23.3	34.1
653550	2	0.0	0.4	0.3	2.3	4.0	4.6
	10	0.0	2.8	6.3	13.6	26.4	35.9
653570	2	0.5	0.3	0.4	3.5	4.5	9.1
	10	0.5	1.3	4.3	14.4	19.0	24.7
653610	2	0.0	0.4	0.6	3.3	3.6	4.9
	10	0.7	1.7	7.9	16.0	25.5	33.7
653300	2	0.0	0.0	0.4	3.5	5.9	4.2
	10	0.1	1.0	6.2	14.2	28.9	29.7
653060	2	0.0	0.6	0.3	1.9	2.9	6.1
	10	0.0	0.6	2.3	8.5	18.2	26.6
655050	2	0.0	0.2	1.2	0.3	3.2	6.9
	10	0.0	0.5	3.4	4.3	14.4	22.5
655160	2	0.0	0.0	1.3	1.2	3.9	7.7
	10	0.0	0.2	3.3	9.5	19.4	28.1
655030	2	0.0	0.2	1.1	1.0	3.1	4.7
	10	0.0	0.3	2.4	5.9	16.5	23.3
655020	2	0.0	0.2	0.5	0.2	1.7	3.6
	10	0.0	0.2	1.3	2.7	10.1	18.3
655070	2	0.0	0.0	1.6	2.2	4.6	8.3
	10	0.0	0.0	4.1	6.9	17.3	25.9
655010	2	0.0	0.0	0.0	0.0	0.1	3.7
	10	0.1	0.1	0.0	0.3	2.9	13.7

GCM - MRI; Downscaling Method - Wilby et. al, 1998
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	9.7	12.4	9.4	3.6	0.1	0.5
	10	30.4	42.2	37.9	23.1	4.1	1.1
655100	2	9.5	12.4	8.0	2.9	0.2	0.1
	10	32.0	48.3	39.6	16.4	2.8	0.5
655220	2	8.8	8.6	12.8	4.0	0.0	0.0
	10	34.2	39.3	40.8	20.7	1.8	0.5
655180	2	8.8	9.6	11.3	1.3	0.6	0.7
	10	30.5	43.6	38.6	10.9	2.7	0.9
653520	2	8.9	5.9	10.3	1.4	0.4	0.2
	10	29.8	31.2	40.5	13.7	1.7	0.2
653190	2	10.1	7.2	15.7	2.0	0.6	0.0
	10	40.5	46.6	56.4	21.1	2.4	0.4
653550	2	8.5	10.8	15.8	2.8	1.3	0.0
	10	39.3	52.2	55.9	29.3	5.3	0.7
653570	2	8.2	5.6	9.9	3.0	0.9	0.0
	10	32.9	32.5	39.8	20.4	2.6	0.8
653610	2	9.8	7.6	11.2	2.2	1.1	0.0
	10	44.9	44.8	47.6	20.8	3.6	0.8
653300	2	6.2	5.8	12.2	2.9	0.1	0.0
	10	36.2	35.8	46.7	23.2	1.4	0.2
653060	2	9.5	6.5	9.0	0.7	0.0	0.0
	10	34.8	37.8	38.0	8.6	0.5	0.2
655050	2	9.1	14.4	8.0	1.5	0.6	0.8
	10	30.4	41.8	32.7	10.7	1.2	0.8
655160	2	8.5	13.5	9.7	2.2	0.7	0.1
	10	34.9	47.3	35.2	12.5	1.7	0.2
655030	2	8.8	11.7	7.1	1.2	0.5	0.2
	10	33.2	39.5	29.2	8.5	1.0	0.9
655020	2	8.2	10.1	7.1	0.7	0.3	0.0
	10	31.2	38.7	27.1	7.0	0.5	0.0
655070	2	10.1	11.3	8.8	1.8	0.0	0.2
	10	34.8	43.7	31.8	9.9	0.0	0.8
655010	2	4.7	7.3	6.0	0.0	0.0	0.8
	10	24.5	31.4	20.3	0.0	0.2	0.8

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	4.7	4.2	7.1	9.3	18.9	24.0
	10	11.8	9.8	15.6	19.5	32.5	42.2
655940	2	4.0	3.1	6.6	10.1	17.1	17.6
	10	9.6	6.9	13.4	19.5	32.9	35.8
655990	2	4.7	3.5	6.1	9.6	15.8	19.1
	10	10.5	9.1	16.4	18.2	33.6	34.8
655780	2	2.7	3.1	7.0	12.2	15.2	22.0
	10	6.9	5.9	17.9	24.9	20.5	34.2
655850	2	5.1	7.5	8.5	11.2	14.6	20.1
	10	10.6	11.3	20.4	24.2	21.3	33.3
655480	2	9.7	10.8	19.9	18.8	14.1	16.7
	10	23.9	24.4	32.6	38.9	25.8	34.9
655600	2	2.5	6.0	9.4	11.3	12.8	12.1
	10	6.8	12.8	19.6	23.5	26.4	24.8
655570	2	4.0	7.0	13.5	12.0	12.5	13.6
	10	10.4	14.9	27.9	29.8	35.5	31.3
655630	2	4.5	3.5	6.8	7.7	11.2	14.8
	10	7.3	8.9	21.6	22.1	26.3	27.1
655620	2	2.8	4.3	9.8	10.5	13.9	13.7
	10	6.4	11.5	22.2	22.1	27.4	25.7
655550	2	4.5	5.5	9.6	11.3	9.4	11.4
	10	8.8	11.3	22.7	24.1	21.9	21.9
655450	2	4.2	4.6	8.2	12.5	18.1	15.5
	10	7.2	9.8	15.8	20.1	42.2	32.2
654720	2	2.8	4.7	9.8	11.2	15.6	12.2
	10	6.1	10.0	16.6	19.6	27.6	20.3
653870	2	1.1	2.0	7.1	7.9	11.9	12.3
	10	3.6	4.5	13.8	13.2	25.4	21.0
653760	2	1.6	1.6	6.6	9.5	13.2	12.9
	10	7.0	6.3	14.9	17.0	27.1	24.2
653800	2	3.1	5.7	13.2	12.3	15.0	13.2
	10	8.7	11.7	21.7	21.2	27.5	25.5
653440	2	1.8	2.3	6.4	11.4	15.8	19.1
	10	3.2	3.8	11.2	20.0	28.9	31.2
653380	2	1.2	2.3	6.9	8.2	11.6	11.3
	10	3.4	4.7	13.4	19.3	26.7	23.3
653350	2	0.7	3.1	6.9	7.2	7.7	9.8
	10	3.9	5.1	12.4	18.0	21.3	22.9
655280	2	3.0	3.5	4.5	6.4	6.8	11.4
	10	7.8	6.8	7.8	14.0	23.5	27.3

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	12.2	12.3	15.4	11.7	8.9	12.5
	10	28.5	30.0	35.1	29.1	23.2	27.7
655940	2	10.6	4.1	5.4	8.0	8.6	9.4
	10	27.5	17.5	20.2	20.8	23.3	22.9
655990	2	9.9	4.0	4.6	8.7	7.6	12.8
	10	24.2	14.0	14.1	20.9	18.7	25.1
655780	2	10.8	4.0	6.9	9.4	8.5	8.8
	10	23.5	12.8	15.7	22.9	22.8	20.1
655850	2	12.0	6.7	10.1	13.5	8.9	8.4
	10	28.3	20.3	21.0	26.6	23.5	19.3
655480	2	14.0	23.4	31.4	29.3	25.7	16.4
	10	33.7	60.2	67.6	57.9	43.9	33.9
655600	2	11.0	10.2	12.2	8.6	3.9	5.5
	10	25.4	25.4	29.6	19.3	10.1	9.5
655570	2	7.3	6.3	10.7	11.0	7.8	6.2
	10	22.5	18.0	26.2	26.1	19.9	13.7
655630	2	9.4	7.8	10.2	8.4	4.2	3.5
	10	22.4	18.0	24.1	20.3	12.1	8.6
655620	2	7.6	6.2	11.5	11.7	4.4	5.2
	10	22.5	16.1	24.0	21.1	10.4	9.7
655550	2	12.1	12.2	14.4	9.1	3.2	5.1
	10	23.7	26.3	29.1	17.5	8.5	9.8
655450	2	9.9	9.5	14.1	7.0	2.6	8.6
	10	20.4	21.7	29.6	26.6	13.0	16.1
654720	2	5.9	2.9	6.2	7.0	4.2	7.2
	10	15.1	7.7	14.1	19.8	11.4	15.0
653870	2	6.5	3.7	6.3	5.8	3.5	5.1
	10	14.4	9.2	15.9	16.6	9.1	11.6
653760	2	13.4	13.5	14.2	9.8	3.8	7.1
	10	30.3	29.9	28.1	23.7	9.2	14.5
653800	2	12.1	6.2	9.5	11.7	5.2	12.4
	10	30.5	15.5	20.5	25.0	10.6	18.4
653440	2	11.8	7.9	11.2	11.0	4.6	5.9
	10	29.6	16.8	20.1	21.1	9.1	9.6
653380	2	13.7	11.2	11.8	13.5	4.7	5.3
	10	38.0	24.7	22.4	20.4	6.8	10.6
653350	2	14.0	14.8	15.1	10.9	3.3	0.7
	10	38.8	29.7	29.4	21.3	6.1	7.6
655280	2	17.3	22.8	15.5	9.2	5.2	5.6
	10	35.6	45.3	41.1	34.6	18.4	12.4

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	3.9	3.8	4.5	7.9	9.8	13.2
	10	7.7	5.3	10.1	16.8	22.0	27.2
655100	2	4.5	1.5	2.1	5.5	7.8	11.9
	10	6.5	3.4	6.0	11.8	18.2	25.9
655220	2	5.9	2.2	3.3	7.9	9.8	11.1
	10	6.6	4.0	9.8	15.6	21.8	29.9
655180	2	3.3	0.8	3.1	4.7	7.4	15.2
	10	6.1	4.6	7.9	9.7	20.3	26.3
653520	2	6.6	3.0	6.6	7.0	11.6	17.2
	10	6.6	5.3	11.0	12.8	24.9	25.9
653190	2	0.0	1.1	2.7	7.1	9.8	13.3
	10	0.0	2.8	6.5	16.5	26.5	26.2
653550	2	4.6	3.7	5.4	7.1	13.7	19.9
	10	6.0	5.9	10.1	16.5	32.9	29.6
653570	2	7.6	4.7	5.1	8.8	11.7	19.0
	10	9.7	8.0	14.8	21.6	31.5	30.1
653610	2	3.1	3.5	5.7	6.9	10.7	14.8
	10	8.2	6.7	10.3	16.6	31.0	28.1
653300	2	0.0	0.3	1.8	4.7	7.6	9.7
	10	3.3	1.6	5.0	8.8	26.1	31.5
653060	2	0.0	1.7	1.8	3.3	6.6	9.1
	10	0.0	2.6	5.1	6.2	17.9	32.2
655050	2	5.2	2.5	1.7	2.2	6.4	11.2
	10	6.7	6.5	6.4	6.2	14.6	27.4
655160	2	3.7	0.6	2.2	3.7	8.7	12.7
	10	6.5	4.6	6.2	9.0	20.0	29.6
655030	2	3.6	2.8	2.4	2.8	5.9	7.9
	10	7.3	4.0	4.6	5.9	17.1	26.8
655020	2	0.0	4.2	2.3	1.7	5.3	9.8
	10	0.0	4.9	4.0	4.0	12.9	23.5
655070	2	0.4	3.0	4.2	4.2	6.6	12.3
	10	0.7	4.7	7.2	8.1	16.5	21.5
655010	2	4.0	1.1	1.4	0.6	2.3	5.2
	10	6.7	2.3	4.4	2.6	5.5	12.7

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	16.4	20.6	18.3	9.2	3.5	13.9
	10	30.5	38.6	36.6	20.8	8.6	22.7
655100	2	16.6	24.4	17.3	8.0	4.6	10.5
	10	32.4	43.0	38.2	15.6	8.5	22.8
655220	2	15.7	17.6	15.4	8.8	4.1	14.2
	10	34.4	35.7	39.2	21.2	9.1	16.0
655180	2	14.7	16.9	14.8	6.6	6.9	11.9
	10	35.1	37.2	38.5	15.5	13.0	13.0
653520	2	15.5	11.5	15.4	9.6	6.9	9.0
	10	33.8	30.0	35.6	16.7	10.6	10.0
653190	2	17.9	19.8	18.8	9.5	5.2	4.8
	10	38.3	41.5	47.4	20.0	7.7	9.2
653550	2	19.8	22.6	21.1	12.1	7.4	6.5
	10	36.4	44.1	48.3	24.6	13.1	8.9
653570	2	15.1	11.9	15.2	12.2	6.2	7.0
	10	34.4	29.5	39.2	25.6	11.8	9.0
653610	2	15.6	16.4	19.2	11.0	8.1	8.5
	10	39.2	37.8	41.4	22.1	13.5	13.8
653300	2	16.2	19.0	18.8	8.9	4.4	1.0
	10	48.1	38.6	43.0	20.8	8.1	6.8
653060	2	15.5	18.8	13.4	4.1	1.2	6.4
	10	52.3	37.7	38.7	12.7	3.1	7.1
655050	2	16.3	18.5	12.1	6.1	8.3	15.5
	10	35.7	34.9	33.3	12.5	12.8	17.7
655160	2	14.7	18.5	12.5	5.3	10.4	12.7
	10	34.8	37.3	39.0	14.8	20.6	16.9
655030	2	15.4	14.7	12.9	3.9	3.3	9.7
	10	35.5	33.0	32.7	11.5	8.0	22.9
655020	2	14.0	16.0	11.9	4.1	5.1	2.9
	10	32.9	31.7	32.5	10.4	14.2	20.1
655070	2	16.6	17.2	12.1	5.1	7.4	16.0
	10	32.5	38.7	35.4	16.9	13.3	22.9
655010	2	12.1	14.9	8.9	2.3	11.0	19.1
	10	29.1	24.2	21.3	7.3	17.6	25.2

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	4.9	3.1	7.6	9.1	20.3	25.5
	10	11.5	8.8	16.0	18.8	33.3	43.2
655940	2	4.1	3.2	7.3	10.3	16.2	20.4
	10	8.4	7.2	14.5	19.3	30.1	43.9
655990	2	4.0	3.2	5.6	8.9	14.8	21.0
	10	8.9	8.8	17.2	17.2	30.4	41.9
655780	2	2.5	2.6	5.9	9.1	17.7	20.8
	10	5.6	6.1	15.6	18.1	27.1	33.5
655850	2	4.5	5.9	8.1	9.0	15.4	19.6
	10	8.3	10.5	17.6	18.3	26.6	33.7
655480	2	20.6	18.0	22.7	22.3	25.6	28.8
	10	40.9	41.2	46.8	50.0	44.3	45.8
655600	2	6.5	7.2	10.5	11.2	15.6	10.5
	10	11.4	11.2	21.3	20.7	36.6	27.2
655570	2	8.4	8.1	13.1	12.6	13.4	11.5
	10	17.3	13.4	28.1	27.0	46.7	35.9
655630	2	7.7	4.3	7.8	8.0	12.0	12.0
	10	12.2	7.9	22.9	19.9	34.9	30.9
655620	2	6.0	6.1	11.3	10.1	14.7	12.3
	10	10.9	10.8	23.0	19.1	37.2	30.0
655550	2	8.4	5.4	8.5	10.9	10.9	10.1
	10	14.3	9.0	21.0	20.6	31.4	23.6
655450	2	6.7	5.0	10.0	12.3	19.5	15.6
	10	10.8	9.4	17.7	19.4	41.9	28.9
654720	2	3.9	5.4	8.4	10.6	13.2	12.5
	10	9.1	11.4	14.4	18.5	22.0	21.3
653870	2	1.6	2.4	5.7	7.5	10.4	12.5
	10	4.5	5.9	11.5	12.4	20.4	22.7
653760	2	2.8	1.2	5.2	8.1	12.4	14.2
	10	9.0	6.8	11.8	14.8	21.4	26.4
653800	2	5.9	6.2	11.6	11.5	16.2	12.9
	10	12.4	13.0	18.9	24.5	26.9	20.9
653440	2	2.9	3.6	5.5	11.4	18.1	17.9
	10	4.2	5.6	10.0	25.1	31.2	25.6
653380	2	2.2	2.6	5.3	8.8	13.8	12.2
	10	5.2	5.9	12.2	23.3	26.8	20.2
653350	2	2.5	4.2	7.5	8.7	9.0	11.8
	10	5.0	7.0	12.9	24.3	21.6	20.2
655280	2	3.5	4.7	5.3	6.7	6.3	11.1
	10	8.5	8.4	9.3	16.1	19.9	23.6

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	13.1	13.5	16.2	11.9	8.8	14.5
	10	25.4	32.2	34.6	28.6	23.5	28.2
655940	2	10.4	4.8	5.9	8.3	8.7	11.2
	10	23.0	17.2	19.6	20.0	27.4	27.4
655990	2	9.9	4.7	5.3	8.2	8.6	16.4
	10	20.8	14.4	14.5	18.8	21.5	30.7
655780	2	9.6	4.5	6.7	9.7	9.2	10.8
	10	22.5	12.0	14.3	27.1	27.3	20.6
655850	2	12.1	6.9	9.6	13.4	9.0	9.0
	10	28.2	19.0	20.8	31.6	27.7	18.9
655480	2	23.6	24.8	32.7	29.9	28.7	22.5
	10	42.9	61.5	70.6	66.9	60.5	49.5
655600	2	9.5	9.4	16.0	7.6	4.9	9.3
	10	24.0	20.6	27.7	11.3	9.2	11.8
655570	2	6.9	7.0	12.8	10.4	9.3	11.0
	10	21.6	16.9	22.4	14.7	20.6	18.1
655630	2	8.0	7.5	12.4	7.9	4.5	5.6
	10	20.2	15.6	21.4	11.6	11.4	12.8
655620	2	7.0	6.0	13.5	9.1	6.6	9.7
	10	21.3	14.5	21.4	12.4	11.6	12.8
655550	2	10.0	11.5	16.8	7.6	4.2	7.9
	10	21.0	21.7	25.3	9.9	8.3	11.1
655450	2	10.0	8.5	14.4	8.4	3.5	10.7
	10	19.6	15.4	25.7	14.2	10.6	19.7
654720	2	7.6	2.6	8.2	4.8	4.4	10.3
	10	13.7	5.7	14.7	6.5	7.1	18.3
653870	2	7.1	3.3	8.8	4.3	3.3	8.7
	10	13.8	7.1	16.2	5.7	5.4	14.1
653760	2	13.6	11.9	20.3	5.8	4.5	10.1
	10	26.8	21.2	30.1	7.1	7.5	17.3
653800	2	12.7	6.1	8.7	12.5	8.4	17.3
	10	28.2	15.7	16.0	20.2	14.5	22.3
653440	2	12.3	7.4	9.5	10.5	5.6	8.9
	10	28.0	16.7	15.6	16.3	10.3	12.5
653380	2	14.2	10.9	12.3	11.6	5.1	10.2
	10	36.5	24.1	18.6	14.8	8.0	15.5
653350	2	14.5	14.3	14.5	10.8	3.9	4.7
	10	36.6	29.5	24.5	18.1	8.2	11.8
655280	2	17.0	17.7	14.8	10.0	7.8	5.8
	10	31.8	48.0	40.0	35.6	17.2	10.9

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	6.5	6.2	6.1	7.8	11.0	13.1
	10	10.5	8.2	12.2	17.6	24.0	20.5
655100	2	6.7	3.7	3.4	5.0	8.8	12.8
	10	9.1	6.3	7.6	11.3	20.1	20.8
655220	2	7.2	2.9	4.2	7.6	11.2	11.2
	10	8.2	5.1	13.1	14.4	22.2	18.8
655180	2	6.3	2.1	3.0	4.5	6.8	13.0
	10	9.1	6.2	8.1	9.8	21.4	31.2
653520	2	8.8	5.1	7.5	6.0	9.4	12.5
	10	8.8	7.2	11.7	12.5	24.9	29.5
653190	2	0.0	1.9	2.6	7.0	9.3	10.7
	10	0.0	4.5	7.0	16.9	26.6	30.7
653550	2	5.6	4.9	5.7	6.4	9.8	15.9
	10	7.7	7.7	11.4	16.9	31.5	35.5
653570	2	9.5	6.7	4.7	7.5	9.8	12.7
	10	11.0	10.3	14.8	22.0	30.8	33.9
653610	2	6.4	5.3	6.2	6.4	10.1	11.1
	10	10.1	8.7	11.4	17.2	30.7	32.4
653300	2	0.7	1.0	2.8	5.5	8.8	10.0
	10	4.3	2.9	8.4	13.8	32.6	35.0
653060	2	0.0	3.2	2.7	3.5	8.2	9.5
	10	0.0	4.0	7.0	7.9	23.7	36.3
655050	2	5.2	1.6	2.1	2.8	8.0	10.2
	10	6.7	5.6	6.1	7.3	18.5	21.1
655160	2	3.3	0.9	2.9	6.0	10.3	11.5
	10	6.5	4.7	8.4	11.9	22.2	22.5
655030	2	3.8	2.8	2.5	4.0	7.9	8.1
	10	7.1	4.1	5.0	7.2	20.7	19.7
655020	2	0.0	4.4	2.3	2.2	6.1	8.7
	10	0.0	5.1	4.2	5.3	15.2	18.4
655070	2	0.3	3.7	4.5	4.6	9.1	10.1
	10	0.5	5.6	7.6	8.8	19.7	14.6
655010	2	3.0	1.0	1.0	0.2	2.1	5.6
	10	5.3	2.8	3.1	2.2	5.9	12.2

GCM - CGCM3; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	12.6	17.7	18.2	9.2	4.1	13.0
	10	16.2	30.0	38.7	23.6	9.4	17.3
655100	2	13.0	20.2	17.2	8.0	5.3	11.0
	10	17.5	33.4	39.4	17.9	9.5	17.3
655220	2	17.6	15.0	16.0	9.2	3.7	12.4
	10	36.4	28.9	39.4	21.1	8.5	14.6
655180	2	14.9	18.3	15.2	6.7	7.5	9.9
	10	31.4	30.7	35.3	13.1	12.2	11.1
653520	2	13.5	13.0	15.9	9.8	6.3	9.2
	10	30.5	25.9	33.6	14.8	10.2	10.0
653190	2	16.1	19.9	19.4	9.1	5.0	7.2
	10	34.6	34.3	43.7	16.5	7.7	8.4
653550	2	17.0	21.3	22.6	12.7	8.6	6.8
	10	33.2	34.4	45.6	20.8	14.8	9.7
653570	2	13.8	12.9	18.2	11.5	7.3	6.9
	10	31.1	24.8	37.4	19.7	13.0	8.5
653610	2	14.6	16.6	20.9	10.3	7.6	8.6
	10	35.3	32.4	38.7	17.4	13.3	12.9
653300	2	15.0	18.4	19.7	10.0	3.9	1.8
	10	46.9	40.7	44.9	19.3	8.0	6.9
653060	2	14.0	19.1	13.3	4.8	1.1	6.0
	10	49.2	41.2	39.7	12.1	2.6	7.0
655050	2	14.8	19.5	11.9	6.4	6.7	11.8
	10	32.8	37.3	31.8	16.1	10.7	13.8
655160	2	13.7	18.1	12.7	5.1	8.1	10.9
	10	32.5	38.7	37.0	18.2	17.3	14.5
655030	2	14.4	16.4	12.6	2.8	2.8	7.9
	10	34.4	36.1	31.2	13.4	7.1	18.7
655020	2	13.2	16.3	12.1	3.7	4.4	2.8
	10	30.2	34.5	30.4	12.3	12.5	18.1
655070	2	15.9	16.4	13.3	5.1	6.8	16.0
	10	29.6	39.7	36.1	20.8	13.6	22.3
655010	2	9.8	16.5	9.2	3.1	8.7	19.4
	10	18.7	31.0	20.8	8.6	14.2	24.0

GCM - CGCM3; Downscaling Method - LARS-WG
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	6.2	3.1	6.5	10.2	18.9	25.2
	10	14.0	9.5	18.5	24.2	37.6	48.9
655940	2	4.7	2.5	6.3	10.9	15.0	18.4
	10	10.8	6.9	17.5	19.3	24.1	38.3
655990	2	5.9	3.4	6.5	10.0	14.1	19.2
	10	12.2	9.3	21.1	18.6	24.2	38.4
655780	2	2.7	3.0	6.8	10.5	17.0	20.1
	10	7.3	7.5	17.5	22.6	30.1	31.0
655850	2	5.1	6.0	8.1	9.4	14.9	18.2
	10	10.3	11.7	19.9	22.0	29.5	29.8
655480	2	13.5	12.5	21.3	22.7	21.2	22.9
	10	34.5	35.2	44.2	44.1	44.7	44.6
655600	2	3.4	5.5	9.2	12.4	17.9	11.9
	10	8.0	9.2	21.3	21.3	34.6	24.4
655570	2	4.4	6.3	13.1	13.2	15.0	14.3
	10	10.6	11.2	30.5	26.8	44.1	31.6
655630	2	4.6	3.5	7.5	8.9	13.7	15.0
	10	7.6	6.8	23.9	19.7	31.6	25.8
655620	2	3.3	4.4	10.9	11.3	17.1	14.2
	10	7.0	9.2	25.8	19.1	33.9	25.2
655550	2	4.9	4.0	9.1	11.9	12.1	11.8
	10	9.2	7.8	23.7	21.2	27.4	21.4
655450	2	3.8	3.9	8.1	10.3	17.8	16.6
	10	7.2	7.6	15.8	19.7	37.4	26.8
654720	2	2.7	4.4	10.4	10.9	16.3	14.4
	10	6.6	9.2	16.8	18.1	29.2	24.2
653870	2	1.3	2.0	6.6	7.7	12.8	14.0
	10	3.9	4.4	13.3	12.1	27.5	24.5
653760	2	1.9	1.4	7.3	8.9	14.4	15.3
	10	6.8	5.9	15.7	15.6	29.5	28.5
653800	2	3.4	5.2	12.1	11.5	17.9	14.0
	10	9.8	12.0	23.4	21.7	30.6	23.1
653440	2	2.2	2.4	6.5	12.2	19.2	18.4
	10	3.7	4.0	12.8	23.3	34.6	27.1
653380	2	1.4	2.4	6.4	9.1	14.7	12.6
	10	3.9	5.4	14.9	21.4	31.3	22.0
653350	2	1.3	3.4	7.0	8.1	10.4	11.7
	10	4.1	5.6	14.3	21.6	26.9	21.8
655280	2	2.2	2.0	5.1	7.4	7.3	11.2
	10	6.7	5.0	8.2	15.4	20.4	28.1

GCM - CGCM3; Downscaling Method - LARS-WG
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	11.6	11.5	12.6	11.5	9.6	13.0
	10	30.8	28.8	33.8	30.3	23.3	24.2
655940	2	10.1	4.9	4.9	8.1	8.5	9.5
	10	25.0	17.2	19.1	20.8	21.5	19.9
655990	2	9.4	4.2	4.6	8.1	8.3	13.3
	10	22.8	13.9	14.4	21.1	16.6	21.3
655780	2	9.1	4.1	6.9	10.8	9.7	9.5
	10	18.9	14.1	14.4	26.5	18.8	18.6
655850	2	10.5	8.2	9.2	13.8	8.2	8.9
	10	22.4	22.2	19.8	30.2	19.8	18.2
655480	2	18.4	23.5	36.9	49.7	37.1	21.9
	10	41.1	60.3	70.4	70.7	59.1	47.5
655600	2	9.8	10.9	14.6	8.4	4.6	8.4
	10	21.6	24.3	27.4	12.7	9.2	12.7
655570	2	6.9	7.0	12.6	11.4	8.9	8.9
	10	19.5	17.7	24.1	16.7	20.1	17.4
655630	2	8.1	7.8	11.5	9.2	4.9	5.4
	10	18.1	17.1	21.2	13.8	12.3	11.8
655620	2	7.4	5.7	12.1	9.9	5.7	6.9
	10	18.0	14.7	20.9	13.9	10.7	12.1
655550	2	10.6	12.8	16.9	8.9	4.1	6.1
	10	20.0	24.2	26.7	12.2	8.9	11.2
655450	2	10.4	10.2	15.1	8.9	3.2	10.7
	10	18.0	19.9	26.7	17.8	10.4	19.9
654720	2	8.7	3.3	6.3	10.2	6.5	9.4
	10	12.8	6.6	13.2	14.4	11.4	19.4
653870	2	7.7	3.8	6.7	9.5	5.9	6.4
	10	12.9	7.9	14.7	12.7	9.7	14.0
653760	2	15.0	14.7	18.0	13.4	4.7	8.2
	10	25.1	23.3	30.6	18.5	8.7	16.9
653800	2	14.3	6.8	9.6	12.3	7.4	12.4
	10	30.2	16.0	16.7	19.8	13.5	17.9
653440	2	13.5	8.1	9.4	10.9	5.1	6.8
	10	30.3	17.6	15.3	17.2	9.6	9.9
653380	2	16.5	11.9	11.9	11.4	5.1	6.2
	10	38.1	24.4	17.5	15.0	7.4	11.2
653350	2	16.3	15.4	14.9	11.1	3.8	1.8
	10	38.5	29.4	23.1	17.4	7.3	8.8
655280	2	16.8	20.8	14.6	12.0	4.7	4.6
	10	33.9	48.5	43.6	30.3	13.6	11.1

GCM - CGCM3; Downscaling Method - LARS-WG
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	3.7	2.9	4.4	7.6	11.8	12.4
	10	7.2	4.3	11.3	19.8	28.1	22.3
655100	2	4.6	0.9	2.4	4.5	9.0	11.0
	10	6.6	3.3	7.9	12.4	23.3	20.7
655220	2	6.7	2.0	2.8	6.5	11.2	11.8
	10	7.3	3.2	11.0	16.0	24.6	21.0
655180	2	3.9	0.6	3.5	4.6	8.1	13.4
	10	8.5	5.1	8.6	10.5	22.7	27.8
653520	2	8.3	4.2	7.9	6.5	12.6	15.2
	10	8.3	7.1	13.0	12.4	28.1	27.6
653190	2	0.0	0.9	2.7	6.9	11.1	12.2
	10	0.0	2.7	6.4	16.0	29.1	28.3
653550	2	5.2	3.3	5.3	6.6	13.5	18.7
	10	6.6	7.4	10.6	16.0	34.9	33.2
653570	2	9.4	5.2	5.4	8.8	12.3	15.9
	10	10.9	9.5	16.4	23.1	33.6	32.3
653610	2	3.1	1.9	5.8	7.4	12.1	13.4
	10	9.6	7.8	11.2	18.0	33.8	30.4
653300	2	0.1	0.8	2.6	6.3	10.5	11.7
	10	3.2	2.0	5.8	12.8	30.4	35.3
653060	2	0.0	2.2	2.3	3.4	8.0	11.1
	10	0.0	2.9	5.1	7.6	20.0	34.0
655050	2	5.3	2.2	2.1	2.2	7.7	11.6
	10	7.0	7.0	7.0	6.1	15.6	23.3
655160	2	3.7	0.8	3.2	3.8	10.0	11.9
	10	6.7	5.0	8.3	8.7	19.9	23.8
655030	2	3.5	2.9	2.3	3.1	7.5	9.2
	10	6.6	4.3	5.0	5.8	17.1	21.4
655020	2	0.0	4.4	2.8	1.8	5.1	9.1
	10	0.0	5.1	4.7	4.3	11.8	17.8
655070	2	0.2	3.1	4.3	3.8	6.1	15.5
	10	0.2	6.1	7.1	7.2	15.6	29.6
655010	2	4.9	1.8	1.0	0.4	2.2	4.8
	10	5.7	2.8	3.6	2.2	5.9	11.1

GCM - CGCM3; Downscaling Method - LARS-WG
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	14.1	19.9	17.5	10.1	3.1	12.8
	10	26.3	39.9	36.3	24.2	8.1	19.8
655100	2	13.8	22.8	16.1	8.4	4.0	8.7
	10	27.7	45.6	37.3	17.3	7.0	18.0
655220	2	16.0	16.6	17.0	10.1	4.5	12.0
	10	33.1	31.0	32.8	20.1	8.9	13.6
655180	2	15.4	20.5	16.5	8.0	5.7	12.3
	10	32.9	34.6	29.5	14.2	12.8	12.9
653520	2	14.3	13.9	15.1	10.5	6.6	9.2
	10	31.3	29.3	27.9	15.8	10.8	10.5
653190	2	17.8	22.7	20.8	11.0	4.8	4.2
	10	36.4	38.4	38.4	19.4	7.6	9.1
653550	2	18.9	23.4	23.9	14.6	6.9	6.0
	10	35.5	39.1	40.3	23.6	13.1	8.0
653570	2	14.4	15.1	17.0	11.8	5.8	6.8
	10	31.9	28.9	31.2	20.9	11.4	8.8
653610	2	16.0	17.7	19.4	10.9	6.7	6.8
	10	37.1	35.6	32.7	18.9	13.2	11.5
653300	2	17.0	20.7	19.3	9.5	3.3	0.5
	10	42.2	33.6	37.6	23.5	8.6	6.0
653060	2	16.6	20.1	14.8	3.8	1.1	6.1
	10	43.6	32.3	32.6	13.1	3.4	6.3
655050	2	16.3	18.9	13.2	6.2	5.5	12.2
	10	38.7	34.7	30.9	12.8	9.2	13.7
655160	2	14.8	17.5	13.8	6.0	6.3	10.2
	10	37.1	35.9	36.8	17.2	14.0	12.7
655030	2	15.3	16.0	13.3	4.3	2.2	7.0
	10	39.0	32.4	30.5	13.0	6.4	18.5
655020	2	15.4	16.1	12.4	4.4	3.2	1.9
	10	36.2	30.9	30.0	11.1	8.6	16.2
655070	2	22.1	19.3	12.6	5.1	4.5	11.8
	10	31.3	38.8	39.7	20.2	10.4	15.4
655010	2	11.1	15.6	9.0	2.9	6.6	16.2
	10	22.8	26.1	21.8	9.0	9.1	20.0

GCM - MIROC; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	8.1	2.3	5.1	8.2	20.6	24.1
	10	16.8	6.5	11.3	16.6	35.5	38.0
655940	2	6.3	2.4	4.0	9.8	15.8	19.3
	10	13.3	5.1	7.6	17.3	28.0	37.6
655990	2	7.9	2.2	4.3	8.6	16.2	19.5
	10	16.4	7.0	10.1	16.7	30.8	37.5
655780	2	3.8	2.8	5.3	7.8	16.4	26.2
	10	8.8	6.5	12.8	15.0	30.0	45.5
655850	2	7.1	5.1	7.6	7.2	14.5	21.7
	10	13.1	10.4	14.8	14.7	30.0	42.6
655480	2	6.4	2.8	7.0	10.7	13.3	15.9
	10	11.5	7.0	14.4	18.8	22.7	32.7
655600	2	5.2	5.6	7.5	9.7	14.2	11.2
	10	10.6	11.0	12.8	15.8	27.5	26.8
655570	2	8.7	5.9	10.9	12.1	13.6	12.8
	10	16.7	12.4	19.0	20.4	36.8	35.1
655630	2	8.3	3.8	5.8	9.1	12.0	13.7
	10	10.8	7.9	13.3	16.0	26.8	30.3
655620	2	5.9	4.1	8.1	9.3	14.2	12.8
	10	10.4	10.2	14.8	13.8	27.3	27.9
655550	2	8.5	4.4	7.3	10.9	9.5	10.5
	10	13.3	8.7	13.6	16.1	22.0	23.6
655450	2	8.3	3.5	5.2	9.4	14.5	16.0
	10	11.5	6.6	9.1	14.2	23.5	27.9
654720	2	3.4	2.6	6.3	9.7	13.6	14.5
	10	9.3	5.8	10.3	15.6	20.8	23.9
653870	2	0.9	1.0	4.2	6.2	11.1	13.1
	10	5.5	2.8	7.7	10.0	19.7	23.9
653760	2	1.5	0.6	4.9	9.1	13.0	16.6
	10	10.8	3.8	9.3	14.8	21.5	28.9
653800	2	3.1	1.5	8.0	11.2	12.9	14.3
	10	11.4	6.9	13.2	18.5	18.8	25.4
653440	2	2.9	1.5	3.3	8.9	14.2	20.5
	10	4.6	2.7	5.1	13.6	20.6	31.3
653380	2	1.0	0.7	4.1	8.2	11.5	13.2
	10	4.8	2.9	6.8	14.4	17.9	23.7
653350	2	0.9	1.3	4.5	7.8	10.0	13.1
	10	5.9	3.1	6.7	14.8	15.9	24.0
655280	2	3.0	1.8	3.8	6.0	9.5	12.8
	10	8.6	6.3	6.4	11.9	18.6	23.4

GCM - MIROC; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	11.7	10.0	11.5	10.6	11.0	16.1
	10	24.0	23.4	28.6	27.5	28.7	29.8
655940	2	8.9	4.1	3.9	7.2	11.1	10.3
	10	19.3	14.1	14.9	18.5	30.9	25.3
655990	2	8.6	3.4	3.7	7.6	9.6	15.2
	10	17.6	11.3	10.7	19.0	22.3	27.9
655780	2	8.6	3.2	4.6	8.0	10.6	10.4
	10	18.9	8.3	10.8	22.4	28.8	23.5
655850	2	11.0	4.9	6.6	11.5	10.9	10.3
	10	24.3	13.4	15.4	26.6	28.9	23.8
655480	2	15.0	18.1	19.2	11.9	7.0	10.2
	10	26.5	36.2	37.8	23.7	15.9	21.4
655600	2	9.0	8.4	10.7	8.1	5.8	7.8
	10	18.1	18.3	27.7	19.5	16.3	15.1
655570	2	7.2	6.3	9.8	12.0	11.8	8.5
	10	16.1	14.0	25.3	27.8	30.0	18.1
655630	2	8.8	7.3	8.7	8.9	6.8	5.8
	10	15.4	14.0	22.0	21.5	19.8	13.0
655620	2	8.2	5.4	9.9	11.8	7.0	8.0
	10	15.8	11.7	23.3	21.1	17.1	15.6
655550	2	10.1	10.3	13.4	9.8	5.2	8.1
	10	16.4	18.7	28.0	19.2	14.7	16.7
655450	2	9.4	8.2	13.7	9.5	5.8	10.2
	10	16.2	13.9	25.5	19.9	13.7	18.1
654720	2	7.2	2.9	4.7	7.0	6.2	6.1
	10	12.1	6.2	12.2	17.8	14.9	18.4
653870	2	7.5	3.3	5.5	6.4	5.3	4.5
	10	13.3	7.7	14.2	15.4	12.0	15.8
653760	2	14.0	13.3	14.8	10.6	5.0	7.2
	10	25.9	22.9	28.6	20.5	11.5	17.4
653800	2	9.9	5.3	7.6	12.7	7.6	13.5
	10	19.0	12.1	17.7	28.0	16.2	20.6
653440	2	9.1	5.7	9.2	12.8	6.6	7.0
	10	19.1	11.1	17.1	25.1	12.9	11.5
653380	2	12.4	8.3	10.6	15.3	7.0	6.1
	10	23.9	17.6	21.2	24.0	10.2	13.1
653350	2	11.9	11.2	12.9	12.4	4.2	1.1
	10	23.0	21.1	27.0	24.6	8.8	11.7
655280	2	18.7	23.3	19.0	13.0	9.3	4.8
	10	35.3	42.0	36.9	33.4	16.6	10.9

GCM - MIROC; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	4.6	2.9	4.2	6.6	11.2	13.4
	10	8.2	4.8	7.5	12.4	18.8	18.2
655100	2	5.0	0.9	2.5	4.3	8.1	12.1
	10	6.5	3.1	5.1	7.8	15.1	17.2
655220	2	4.3	0.9	2.9	5.8	9.4	12.5
	10	4.8	2.2	6.1	9.1	17.3	22.0
655180	2	1.3	0.2	2.1	3.2	6.4	11.1
	10	6.2	1.9	4.9	6.8	12.6	20.6
653520	2	6.7	1.3	3.8	5.0	9.4	12.2
	10	6.7	2.5	6.4	8.8	16.9	22.1
653190	2	0.0	0.0	1.8	4.8	8.9	11.6
	10	0.0	0.6	4.3	10.2	16.4	24.0
653550	2	4.2	0.8	2.9	5.1	11.6	16.6
	10	6.1	1.9	6.7	10.8	20.6	28.0
653570	2	7.4	1.6	3.1	6.9	10.0	13.5
	10	9.1	3.5	9.8	17.0	19.9	24.5
653610	2	0.6	0.0	3.7	5.7	11.9	13.1
	10	6.4	2.8	7.5	13.3	21.4	26.1
653300	2	0.0	0.1	0.7	2.9	9.8	11.1
	10	1.2	0.4	1.3	5.1	17.0	21.4
653060	2	0.0	0.2	0.9	2.2	6.7	11.9
	10	0.0	0.5	1.8	3.7	10.6	17.9
655050	2	3.5	0.3	1.5	2.0	5.5	7.6
	10	5.1	1.8	5.4	5.5	12.3	15.8
655160	2	2.6	0.4	2.6	3.5	7.4	9.7
	10	5.2	2.1	6.0	8.2	15.8	17.7
655030	2	2.6	0.5	2.2	2.7	4.9	6.7
	10	5.9	2.3	3.8	4.8	12.8	15.9
655020	2	0.0	0.4	2.1	1.5	4.0	6.6
	10	0.0	3.7	3.3	3.5	8.9	13.0
655070	2	0.4	0.6	2.8	3.5	5.2	9.7
	10	0.4	1.9	5.0	6.5	11.2	19.7
655010	2	4.3	0.2	1.1	0.5	1.8	3.1
	10	5.2	1.4	3.2	2.1	4.5	7.6

GCM - MIROC; Downscaling Method - LARS-WG

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	15.4	21.4	18.4	8.7	4.7	6.4
	10	20.5	34.2	35.4	21.8	9.6	10.6
655100	2	16.0	25.4	17.7	8.2	5.4	6.5
	10	21.8	39.9	36.1	17.1	9.8	10.9
655220	2	16.7	19.6	18.4	8.5	4.2	8.0
	10	25.6	33.5	35.8	19.8	9.1	9.8
655180	2	17.3	22.6	17.8	8.5	6.5	3.6
	10	26.8	34.4	34.6	17.3	12.7	20.7
653520	2	16.1	16.8	16.3	11.3	7.3	16.6
	10	26.3	28.7	33.1	18.4	10.5	19.8
653190	2	18.4	23.9	23.8	12.1	5.7	2.1
	10	31.0	38.1	44.2	21.7	8.0	10.8
653550	2	18.2	24.3	26.1	14.1	8.1	4.5
	10	31.5	38.9	45.0	25.8	13.5	12.1
653570	2	16.5	16.6	19.4	13.7	6.3	6.9
	10	28.7	27.9	36.1	26.7	12.1	14.9
653610	2	18.0	19.3	21.5	12.6	9.8	4.7
	10	34.0	35.1	37.9	22.8	13.5	15.7
653300	2	14.4	18.7	21.1	9.4	4.0	0.9
	10	26.2	30.4	35.4	17.6	7.0	4.0
653060	2	16.5	18.8	16.0	4.8	1.6	0.7
	10	25.2	29.4	30.3	10.9	3.2	10.1
655050	2	15.4	27.8	17.4	5.8	4.4	6.6
	10	27.0	41.0	32.0	11.5	7.4	7.9
655160	2	16.7	26.8	20.1	5.4	5.8	5.6
	10	28.3	43.5	38.3	14.1	12.9	7.2
655030	2	15.4	24.8	18.2	3.9	1.8	4.3
	10	27.6	38.8	30.7	11.7	5.0	9.4
655020	2	13.7	22.7	17.2	4.3	2.9	1.2
	10	24.9	36.1	30.7	10.5	7.3	7.0
655070	2	16.9	24.9	19.9	6.3	3.3	14.4
	10	28.9	41.2	32.7	14.1	7.2	16.6
655010	2	11.5	21.4	10.3	2.8	3.4	14.4
	10	21.0	32.7	23.3	7.1	4.7	16.2

GCM - MIROC; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	8.4	4.0	5.3	7.3	17.3	24.4
	10	18.6	7.5	9.5	14.1	32.6	40.1
655940	2	5.6	3.0	4.4	7.1	14.3	18.7
	10	12.4	5.6	7.4	14.3	28.2	36.3
655990	2	6.7	2.6	4.4	6.6	14.1	18.8
	10	14.2	6.3	9.6	13.5	29.6	35.6
655780	2	3.1	3.4	6.0	7.4	16.1	23.6
	10	7.8	7.2	13.2	15.6	29.7	39.8
655850	2	6.3	6.1	8.2	7.2	13.2	21.0
	10	12.2	10.5	15.3	14.4	28.0	39.8
655480	2	6.4	4.0	6.7	9.2	12.3	15.7
	10	11.9	8.3	11.8	15.9	22.8	35.0
655600	2	3.9	5.0	5.6	7.7	11.8	11.0
	10	11.2	9.1	9.2	13.5	25.7	26.8
655570	2	6.1	5.8	8.7	10.0	11.7	12.6
	10	15.5	11.6	14.6	19.4	34.2	34.6
655630	2	7.4	3.6	5.6	6.5	10.4	14.3
	10	11.8	7.3	11.5	14.1	24.6	30.3
655620	2	4.4	3.7	7.7	6.6	11.8	13.7
	10	9.9	8.7	12.8	12.2	24.3	29.4
655550	2	7.2	4.7	6.4	8.3	8.6	10.4
	10	14.5	8.9	10.2	14.5	20.8	23.4
655450	2	5.5	3.8	4.4	9.9	14.9	14.3
	10	11.3	7.3	7.9	15.0	24.8	24.7
654720	2	2.6	3.0	6.2	9.5	12.6	12.3
	10	8.2	6.6	10.1	16.6	20.6	20.9
653870	2	1.0	1.9	5.0	6.4	10.2	13.3
	10	4.1	4.2	8.6	10.6	19.2	22.8
653760	2	1.1	0.9	5.4	8.5	12.0	15.9
	10	7.6	4.5	10.8	14.3	21.0	27.6
653800	2	2.8	1.7	7.8	11.0	13.7	14.3
	10	9.4	7.1	12.5	18.5	20.9	25.6
653440	2	2.2	1.5	3.7	10.1	14.0	20.4
	10	3.8	2.8	5.6	15.7	22.3	31.9
653380	2	0.8	0.7	4.5	8.6	11.6	13.5
	10	3.8	3.6	6.9	16.1	20.3	24.1
653350	2	0.5	1.5	4.5	8.1	9.4	12.0
	10	4.4	3.4	7.1	15.9	16.9	24.0
655280	2	7.6	4.4	3.5	4.1	7.2	11.4
	10	13.0	6.2	6.1	9.9	18.6	22.6

GCM - MIROC; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	12.4	9.7	12.0	11.3	10.7	14.6
	10	26.0	23.3	27.5	28.4	29.3	28.5
655940	2	9.1	3.6	3.6	7.3	10.0	9.5
	10	19.5	13.1	13.7	19.3	29.7	22.9
655990	2	8.3	3.3	3.7	7.8	9.4	13.0
	10	17.9	11.0	10.9	18.8	22.4	24.7
655780	2	8.4	3.5	4.6	8.3	9.6	8.8
	10	19.2	8.8	11.2	21.8	28.3	21.2
655850	2	10.1	5.0	6.9	11.8	10.5	8.5
	10	22.8	13.7	15.2	26.6	29.0	20.2
655480	2	14.4	16.5	18.6	12.7	5.5	7.3
	10	31.8	35.3	38.5	23.4	14.8	17.9
655600	2	8.7	8.3	10.0	8.0	4.5	5.0
	10	18.5	18.1	26.5	22.8	13.0	12.5
655570	2	7.0	5.2	8.7	11.0	9.9	5.7
	10	17.4	13.6	22.9	29.7	25.5	15.5
655630	2	8.3	6.5	7.5	8.3	5.0	4.1
	10	16.5	13.3	20.2	24.9	15.6	10.5
655620	2	7.0	5.1	8.7	11.9	5.4	5.3
	10	16.6	12.1	20.6	23.4	13.0	12.1
655550	2	10.5	10.2	11.4	9.3	3.8	5.9
	10	18.0	19.4	25.7	21.7	10.9	13.5
655450	2	10.0	8.0	11.5	9.7	5.2	7.0
	10	17.6	13.1	25.3	21.8	11.4	13.2
654720	2	7.5	2.5	4.0	7.3	6.1	6.4
	10	13.2	6.3	10.7	17.2	12.3	18.7
653870	2	7.6	2.9	4.0	6.6	5.2	5.2
	10	13.7	7.2	11.4	14.8	9.7	15.8
653760	2	15.2	12.6	11.5	10.5	4.3	6.6
	10	27.5	24.3	24.5	20.5	9.7	16.3
653800	2	9.1	5.6	6.6	13.6	7.2	13.3
	10	16.6	12.9	15.8	29.4	13.6	19.5
653440	2	8.5	5.7	8.5	12.9	5.6	6.8
	10	17.1	11.2	16.6	25.5	10.1	10.8
653380	2	12.1	8.8	9.1	16.0	5.8	6.4
	10	21.5	17.0	18.7	24.7	8.3	12.3
653350	2	12.0	11.8	11.0	12.3	4.2	0.9
	10	21.1	20.8	24.5	25.8	7.2	9.3
655280	2	18.6	20.6	19.3	14.2	5.8	4.7
	10	37.5	34.5	43.2	33.0	14.5	11.2

GCM - MIROC; Downscaling Method - LARS-WG
SRES A2 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	6.2	5.2	4.4	5.5	10.6	13.2
	10	10.3	6.7	8.2	11.2	19.8	20.9
655100	2	7.1	2.8	2.8	3.5	7.5	11.8
	10	8.5	5.1	6.2	7.2	15.4	20.4
655220	2	5.9	1.8	3.2	6.1	9.7	12.0
	10	6.5	2.9	6.4	11.0	19.8	23.0
655180	2	2.4	0.2	2.3	3.4	6.5	12.8
	10	7.7	2.6	5.5	7.6	14.6	22.0
653520	2	8.4	1.8	4.6	5.1	9.2	12.5
	10	8.5	4.0	7.9	10.1	17.4	20.9
653190	2	0.0	0.1	1.7	5.4	8.0	12.0
	10	0.0	1.2	5.1	12.6	17.2	24.4
653550	2	4.8	1.5	3.5	5.3	11.0	16.4
	10	7.4	3.5	7.9	13.1	22.7	26.8
653570	2	8.2	1.8	3.2	6.5	9.0	13.9
	10	11.5	4.4	9.6	18.1	20.2	23.5
653610	2	0.3	0.1	3.7	5.8	10.3	13.7
	10	8.4	4.2	8.0	14.7	23.1	25.9
653300	2	0.0	0.1	2.1	5.6	10.4	12.3
	10	4.4	1.2	4.2	10.5	20.8	26.2
653060	2	0.0	0.8	1.2	3.6	7.7	14.5
	10	0.0	2.1	3.0	7.0	13.3	21.7
655050	2	5.2	1.6	1.5	2.4	6.3	9.2
	10	8.0	4.3	5.0	6.0	12.5	16.8
655160	2	6.9	0.4	2.2	3.8	8.4	10.8
	10	8.4	3.7	5.2	8.9	17.1	18.8
655030	2	4.1	1.8	2.0	2.4	5.4	7.3
	10	9.4	2.8	3.6	4.8	12.5	16.6
655020	2	0.0	3.6	2.1	1.6	4.7	7.2
	10	0.1	4.1	3.2	3.5	9.2	13.5
655070	2	0.4	1.2	2.6	3.4	6.7	10.7
	10	0.7	3.1	4.8	7.2	13.0	19.8
655010	2	6.2	2.0	0.9	0.3	1.7	3.8
	10	9.3	3.3	3.3	2.4	4.8	8.2

GCM - MIROC; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	16.6	19.3	19.8	10.6	4.0	6.5
	10	25.9	31.6	38.1	20.8	9.2	10.1
655100	2	17.2	23.2	18.0	7.8	5.2	6.1
	10	27.0	37.5	40.4	14.8	8.9	11.5
655220	2	16.5	17.7	16.9	8.8	4.1	12.7
	10	26.1	32.4	38.4	18.3	8.8	15.0
655180	2	17.1	22.0	16.0	7.8	7.2	15.1
	10	26.5	36.8	33.9	14.2	12.8	18.1
653520	2	16.3	15.3	15.4	10.1	7.4	12.5
	10	25.3	30.7	31.3	15.6	10.4	14.5
653190	2	17.4	22.6	19.7	10.6	5.4	2.5
	10	30.3	40.2	42.4	19.0	7.6	13.7
653550	2	18.0	24.3	22.7	13.6	9.1	4.9
	10	30.8	41.6	44.3	23.4	14.5	10.2
653570	2	16.4	14.6	16.7	12.1	5.9	7.7
	10	28.3	30.3	34.6	22.1	11.1	11.3
653610	2	17.3	19.3	20.4	11.8	8.3	6.0
	10	32.0	38.4	37.6	20.3	12.3	16.1
653300	2	16.8	18.4	20.6	10.9	5.6	0.7
	10	29.6	31.4	36.4	21.3	9.7	5.1
653060	2	18.8	17.7	14.7	5.2	1.6	5.5
	10	28.5	30.0	32.0	12.7	4.0	6.1
655050	2	14.8	25.3	16.2	6.1	4.3	5.5
	10	27.2	39.1	29.5	11.8	6.9	6.4
655160	2	16.5	24.4	18.0	6.2	5.4	6.3
	10	29.0	41.6	33.7	14.5	11.5	7.7
655030	2	15.3	22.2	16.8	4.9	1.4	3.1
	10	28.5	37.4	27.1	12.0	4.9	7.4
655020	2	13.7	21.2	14.5	4.8	3.4	1.0
	10	25.8	35.9	25.6	10.6	7.0	6.4
655070	2	17.5	23.6	18.9	6.8	4.1	13.5
	10	31.2	43.2	31.3	12.7	8.8	19.9
655010	2	12.2	22.6	12.9	2.8	4.8	15.5
	10	20.5	32.7	24.7	7.1	6.6	19.9

GCM - MIROC; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	7.7	3.2	5.4	7.9	20.2	24.0
	10	17.1	8.5	10.6	16.3	35.1	35.7
655940	2	5.0	2.6	4.8	8.6	16.0	19.1
	10	11.5	6.3	8.5	16.6	30.6	36.2
655990	2	6.8	2.8	4.1	7.8	14.2	19.3
	10	13.9	8.1	10.7	15.4	30.2	35.5
655780	2	3.4	3.7	7.0	8.1	16.1	24.2
	10	7.7	7.3	15.2	16.4	30.7	40.3
655850	2	7.0	7.2	9.3	8.3	13.8	20.3
	10	12.4	11.8	16.7	16.4	29.4	38.0
655480	2	6.4	3.8	7.6	10.4	14.0	17.1
	10	11.2	9.0	16.1	21.6	24.3	33.8
655600	2	4.5	6.0	7.1	9.9	13.7	12.4
	10	8.9	11.1	12.4	17.5	27.0	26.3
655570	2	7.5	6.7	9.9	11.4	14.0	15.1
	10	14.1	13.7	18.1	22.5	34.9	34.6
655630	2	7.4	5.5	6.3	7.6	12.1	14.5
	10	9.4	9.7	14.1	16.7	26.2	28.2
655620	2	5.2	4.8	7.4	9.3	14.1	14.5
	10	8.8	11.5	14.3	16.0	26.2	28.6
655550	2	7.8	5.2	7.1	10.1	10.0	11.9
	10	11.7	10.1	12.5	17.8	22.2	23.3
655450	2	5.8	3.7	6.8	10.8	16.7	14.9
	10	9.6	8.4	12.2	17.3	28.8	24.8
654720	2	3.2	4.0	8.0	10.6	14.0	13.0
	10	8.7	8.8	13.2	17.6	21.4	21.5
653870	2	1.0	1.7	5.7	6.7	11.2	12.6
	10	4.5	4.6	10.2	10.9	20.9	21.8
653760	2	1.7	1.0	7.0	9.8	12.7	15.3
	10	8.7	5.6	12.7	15.7	21.5	26.2
653800	2	3.6	2.8	9.0	10.6	14.0	14.6
	10	12.0	8.8	14.7	18.1	20.9	25.1
653440	2	3.0	2.2	4.3	9.8	14.6	20.8
	10	4.6	3.8	7.1	15.5	22.7	31.2
653380	2	1.5	1.2	6.3	8.5	12.2	13.1
	10	5.3	4.3	10.2	16.2	20.2	23.9
653350	2	2.2	2.2	5.9	7.0	9.4	12.9
	10	5.7	4.7	9.4	15.9	17.2	23.9
655280	2	2.1	3.4	4.5	6.5	8.2	12.0
	10	7.4	6.9	7.7	14.2	19.5	24.8

GCM - MIROC; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	12.4	9.8	12.7	11.6	9.3	12.7
	10	26.0	23.1	28.1	28.1	26.2	25.4
655940	2	9.5	3.6	3.9	7.6	9.0	8.5
	10	21.3	14.0	15.6	17.7	25.2	21.1
655990	2	8.5	3.3	4.0	7.7	7.7	10.8
	10	18.6	11.4	11.3	17.1	19.3	21.5
655780	2	8.5	3.8	4.9	9.1	9.7	8.7
	10	18.9	9.1	10.5	21.8	27.8	19.8
655850	2	10.7	6.2	7.1	13.4	10.2	8.1
	10	23.7	14.9	15.5	25.8	27.5	19.8
655480	2	13.6	17.5	20.3	11.8	5.3	7.7
	10	28.3	39.7	39.5	18.1	12.5	18.5
655600	2	8.5	8.7	10.3	8.0	3.6	5.7
	10	17.1	21.2	28.3	19.1	11.7	13.8
655570	2	6.8	5.8	8.8	10.6	8.2	6.7
	10	16.2	15.1	25.4	26.0	24.6	16.9
655630	2	8.4	6.8	8.8	8.8	3.9	4.8
	10	14.1	15.2	22.4	21.9	14.9	11.7
655620	2	7.7	5.3	10.4	11.2	5.4	5.5
	10	14.8	13.8	23.7	20.9	13.5	12.4
655550	2	10.3	11.5	12.8	9.1	3.6	6.4
	10	15.8	22.8	28.1	18.6	10.6	14.4
655450	2	9.3	10.0	13.9	9.3	4.9	6.6
	10	17.7	18.4	27.3	21.1	11.8	12.9
654720	2	7.1	2.6	4.4	7.3	6.1	6.4
	10	13.0	6.2	12.1	17.2	12.1	16.8
653870	2	7.1	3.1	5.1	6.3	5.1	4.6
	10	13.7	7.4	13.7	14.0	10.0	13.2
653760	2	13.9	13.8	13.6	10.1	4.5	6.3
	10	26.8	25.0	27.8	19.1	9.8	14.5
653800	2	8.3	5.7	7.8	12.7	7.7	11.7
	10	16.0	14.4	17.0	28.1	13.7	17.4
653440	2	8.2	6.1	9.4	13.3	6.1	6.0
	10	16.3	13.1	17.9	25.4	10.5	9.0
653380	2	11.4	10.0	10.5	15.3	5.8	5.8
	10	21.2	21.1	20.3	23.4	8.0	10.5
653350	2	12.0	11.8	14.0	12.7	4.4	1.7
	10	21.6	23.9	27.3	25.5	7.7	8.4
655280	2	20.2	20.6	20.8	13.7	3.7	5.1
	10	40.1	33.9	45.7	27.2	12.7	11.6

GCM - MIROC; Downscaling Method - LARS-WG
SRES B1 (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	4.2	4.5	4.2	6.3	10.8	14.4
	10	6.9	6.6	8.0	12.6	20.0	21.8
655100	2	4.4	2.2	2.4	4.5	7.6	13.4
	10	5.7	4.2	5.3	8.9	15.7	21.4
655220	2	4.3	2.0	3.7	6.3	9.6	12.7
	10	4.6	4.2	7.9	11.1	18.9	22.4
655180	2	0.8	0.5	4.1	3.5	6.6	12.4
	10	6.0	3.8	9.1	7.7	14.2	21.6
653520	2	7.0	1.8	7.7	5.5	9.9	13.8
	10	7.2	4.5	12.4	10.2	18.6	24.1
653190	2	0.0	0.1	3.0	5.6	8.9	12.1
	10	0.0	0.9	6.9	11.6	19.2	25.7
653550	2	3.2	1.9	5.9	5.4	11.9	17.6
	10	5.7	4.5	10.9	12.5	24.2	29.9
653570	2	5.9	2.2	6.9	6.8	10.9	15.3
	10	9.1	6.8	17.1	18.2	22.8	26.4
653610	2	0.0	0.4	6.9	5.8	11.3	14.0
	10	5.9	6.1	12.5	14.3	24.5	27.5
653300	2	0.0	0.2	3.0	5.2	12.6	13.9
	10	1.1	1.2	6.1	9.6	21.1	23.0
653060	2	0.0	0.5	2.4	3.4	8.7	14.3
	10	0.0	2.6	5.4	6.8	14.0	20.3
655050	2	4.0	0.6	1.5	2.3	6.1	10.0
	10	5.5	3.9	5.2	5.6	12.9	17.8
655160	2	3.9	0.8	2.4	3.5	7.8	10.6
	10	7.1	3.0	5.4	7.5	16.5	17.9
655030	2	2.8	0.8	2.1	2.6	5.0	7.7
	10	7.8	3.1	3.4	5.0	12.3	15.6
655020	2	0.0	0.6	1.9	1.7	3.8	7.7
	10	0.0	4.6	3.2	3.6	8.3	13.3
655070	2	0.1	1.0	4.1	3.4	6.0	11.5
	10	0.3	3.6	7.3	7.1	11.8	20.1
655010	2	3.1	0.4	0.9	0.5	2.8	3.5
	10	5.3	2.8	3.3	3.3	7.5	9.5

GCM - MIROC; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	16.5	19.2	18.4	10.1	3.0	8.2
	10	22.7	30.2	32.4	18.8	7.0	11.4
655100	2	16.1	21.7	17.0	8.0	3.4	7.0
	10	23.2	34.0	34.3	13.9	6.4	11.9
655220	2	17.6	17.4	17.3	9.7	3.2	11.5
	10	28.8	30.4	34.1	19.9	7.8	13.1
655180	2	17.4	20.5	16.4	8.4	3.5	11.3
	10	27.5	31.4	33.7	16.7	15.5	29.3
653520	2	16.8	14.9	15.5	11.3	7.0	18.4
	10	26.9	26.5	32.7	19.6	12.0	23.5
653190	2	18.5	22.7	21.6	10.9	4.5	1.8
	10	32.5	35.8	44.9	22.9	9.0	13.6
653550	2	19.0	22.7	25.0	14.9	7.4	5.2
	10	32.7	35.7	45.7	27.8	16.1	15.6
653570	2	17.2	15.0	16.9	13.4	5.3	6.8
	10	30.0	26.0	36.3	27.0	13.9	18.9
653610	2	17.8	18.5	21.7	11.4	7.4	3.9
	10	33.9	33.7	38.5	22.7	15.4	19.6
653300	2	17.0	18.1	21.1	11.3	5.7	0.8
	10	28.3	29.9	36.5	21.2	11.9	5.6
653060	2	18.0	18.7	16.4	6.1	1.6	9.7
	10	26.3	29.0	31.9	13.4	4.3	10.9
655050	2	15.7	23.5	14.4	7.8	4.9	8.2
	10	26.6	40.3	28.7	14.9	8.4	9.4
655160	2	15.8	22.9	17.2	7.9	6.3	6.9
	10	27.2	42.1	33.1	18.5	13.9	9.1
655030	2	14.6	21.6	16.5	5.3	1.7	5.1
	10	25.7	38.7	27.8	14.5	5.0	12.7
655020	2	12.6	18.9	14.8	4.6	3.5	1.2
	10	23.5	36.4	26.7	11.7	8.8	10.4
655070	2	18.6	21.6	17.2	7.4	3.8	14.6
	10	32.1	39.7	30.7	16.8	9.2	18.4
655010	2	9.3	19.4	11.8	2.9	5.9	8.1
	10	18.6	30.7	23.9	8.1	7.7	24.8

GCM - MRI; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	4.6	3.7	5.6	9.7	18.3	24.6
	10	11.3	9.9	11.9	20.3	33.5	44.1
655940	2	3.1	3.1	5.3	9.6	15.5	17.3
	10	8.2	6.7	8.8	17.2	28.5	32.6
655990	2	4.2	3.0	4.6	8.7	15.4	18.1
	10	9.8	8.6	10.1	15.3	29.0	32.5
655780	2	2.1	3.3	6.0	9.3	16.4	22.5
	10	5.3	7.5	11.5	19.0	28.7	35.7
655850	2	3.6	5.9	7.7	9.1	14.8	19.9
	10	8.2	11.2	12.5	19.0	28.7	33.7
655480	2	3.8	4.4	9.5	11.2	13.9	15.9
	10	8.8	10.4	20.8	21.3	24.2	29.9
655600	2	2.4	6.0	8.2	12.4	12.8	11.3
	10	6.5	11.4	16.1	21.3	22.5	26.7
655570	2	3.3	7.5	12.3	13.7	14.8	12.9
	10	9.5	14.6	24.9	26.3	30.5	33.8
655630	2	4.0	3.6	6.3	9.9	11.5	13.6
	10	6.7	8.6	18.4	20.0	21.8	27.8
655620	2	2.8	4.7	8.9	11.4	13.7	12.9
	10	5.8	11.3	18.4	18.9	22.8	26.6
655550	2	4.1	4.7	7.1	12.7	10.2	10.8
	10	8.7	9.3	17.3	21.4	18.1	22.1
655450	2	4.6	4.2	6.5	12.7	13.6	14.2
	10	7.2	7.6	12.1	20.8	21.8	24.4
654720	2	2.8	4.0	8.7	13.4	13.4	11.6
	10	7.2	8.8	14.7	22.1	19.3	18.3
653870	2	1.1	1.9	5.6	8.8	11.6	12.7
	10	4.1	3.7	11.2	15.1	18.7	19.9
653760	2	1.7	1.7	5.7	11.2	13.1	15.1
	10	8.7	5.5	12.9	19.1	20.5	23.7
653800	2	3.0	3.7	10.2	13.1	14.2	13.8
	10	9.6	8.3	17.1	21.9	21.5	24.2
653440	2	2.1	1.3	4.7	11.8	14.1	19.4
	10	3.3	2.3	8.4	18.6	23.2	29.6
653380	2	1.0	1.8	4.8	9.8	11.5	12.9
	10	3.7	3.9	9.6	18.6	20.5	23.4
653350	2	1.4	2.1	5.6	7.8	8.4	11.1
	10	4.7	3.5	10.1	17.7	16.7	22.1
655280	2	1.6	2.3	4.8	8.9	9.3	13.4
	10	6.4	4.4	8.6	13.3	21.9	27.2

GCM - MRI; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	14.4	15.1	18.4	13.6	9.5	8.8
	10	29.8	32.7	37.4	32.3	23.3	17.2
655940	2	10.2	7.0	5.5	8.9	9.0	6.6
	10	18.5	18.0	19.6	24.2	25.1	15.3
655990	2	9.2	5.9	6.2	9.0	9.0	9.2
	10	16.5	13.9	15.9	23.6	20.7	16.3
655780	2	9.1	5.3	7.4	12.6	12.0	6.9
	10	17.3	12.1	16.3	29.7	22.8	13.4
655850	2	11.2	8.5	10.8	17.2	10.3	6.0
	10	21.4	18.6	22.8	34.8	22.3	13.6
655480	2	16.4	24.9	23.2	12.2	6.4	5.9
	10	32.4	48.3	38.4	23.0	12.1	10.3
655600	2	10.4	12.8	13.4	7.0	3.0	4.4
	10	26.0	28.6	31.6	20.3	11.0	11.3
655570	2	6.8	9.3	12.0	10.3	6.7	4.9
	10	21.3	21.8	28.9	29.4	22.4	13.5
655630	2	9.3	10.6	10.7	6.1	3.4	3.0
	10	22.3	22.1	25.0	21.4	13.4	8.5
655620	2	7.7	7.6	12.6	10.6	3.9	4.6
	10	21.5	19.2	26.2	21.7	11.9	10.0
655550	2	10.9	15.7	16.0	7.7	3.1	4.4
	10	21.4	28.4	30.6	19.5	9.3	10.8
655450	2	10.8	14.0	18.5	9.8	3.4	6.6
	10	21.3	23.9	34.3	23.0	12.0	14.2
654720	2	7.7	4.4	7.6	7.9	5.6	6.6
	10	16.1	11.1	18.4	16.3	13.4	17.4
653870	2	8.6	5.2	8.0	7.2	3.9	4.8
	10	16.5	13.4	20.4	14.2	10.8	14.1
653760	2	16.1	22.3	18.8	11.8	3.8	6.5
	10	31.6	41.0	36.8	19.7	9.6	15.5
653800	2	11.0	8.5	10.0	12.2	6.2	9.9
	10	24.0	21.9	25.6	22.6	13.9	19.7
653440	2	10.4	9.8	13.4	11.2	4.6	6.2
	10	24.1	21.6	25.3	19.3	10.7	12.2
653380	2	14.7	15.8	14.3	11.9	5.1	4.6
	10	31.5	32.8	28.7	17.2	8.6	13.5
653350	2	14.3	19.7	17.1	11.1	3.3	0.5
	10	31.2	37.5	36.4	20.1	7.5	11.6
655280	2	18.8	22.9	20.1	12.1	3.0	3.4
	10	34.9	40.8	37.3	28.7	13.0	8.4

GCM - MRI; Downscaling Method - LARS-WG
SRES A1b (2046 - 2065)
DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	3.3	3.0	5.1	7.4	11.5	15.2
	10	5.4	5.0	11.4	17.3	23.2	27.3
655100	2	2.9	0.9	2.6	5.1	8.6	13.2
	10	4.4	3.5	7.0	11.4	20.0	26.4
655220	2	1.5	0.9	2.6	6.0	9.2	11.6
	10	2.7	1.9	5.8	12.0	17.5	21.1
655180	2	0.0	0.3	2.5	4.9	7.7	13.1
	10	3.2	3.9	6.6	10.1	16.5	23.0
653520	2	1.7	1.6	5.7	8.0	10.7	13.7
	10	6.8	4.7	9.5	13.5	20.3	23.5
653190	2	0.0	0.3	2.1	7.5	9.8	12.5
	10	0.0	1.4	5.3	14.7	21.1	25.0
653550	2	0.9	2.5	4.1	8.1	13.6	17.7
	10	4.5	5.5	9.2	16.8	26.6	29.3
653570	2	1.3	2.4	4.5	11.2	11.2	16.0
	10	7.5	7.3	13.4	23.1	24.4	27.5
653610	2	0.0	0.6	4.8	8.3	11.7	13.4
	10	2.0	5.7	9.7	17.8	25.9	27.3
653300	2	0.0	0.2	2.1	5.3	11.5	12.8
	10	2.0	2.2	5.6	8.4	21.6	28.3
653060	2	0.0	1.5	1.8	3.6	9.1	14.2
	10	0.0	3.4	4.6	5.6	14.8	24.0
655050	2	4.1	2.3	1.7	2.6	8.9	10.8
	10	5.1	4.4	5.7	7.2	17.1	19.4
655160	2	3.5	2.9	2.1	3.7	10.3	11.7
	10	5.2	4.0	5.3	10.5	20.9	19.9
655030	2	3.0	2.2	2.2	2.5	8.1	9.1
	10	6.3	3.3	4.1	6.3	16.9	18.4
655020	2	0.0	3.0	1.7	1.7	6.3	8.5
	10	0.1	3.4	3.1	4.1	12.5	14.9
655070	2	0.2	2.9	3.7	3.9	8.1	10.6
	10	0.4	4.1	5.7	6.5	13.2	19.5
655010	2	2.4	1.4	1.0	0.4	2.3	4.8
	10	3.9	2.1	3.1	2.3	6.7	11.3

GCM - MRI; Downscaling Method - LARS-WG

SRES A1b (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	16.1	19.5	18.2	9.9	2.9	5.8
	10	28.9	34.4	34.4	20.1	6.7	7.3
655100	2	15.9	23.5	16.7	7.8	3.4	6.1
	10	29.7	40.0	35.6	14.2	6.3	8.2
655220	2	16.0	16.9	18.4	9.2	5.9	4.5
	10	32.1	31.6	37.4	19.3	12.0	5.9
655180	2	17.4	20.6	15.3	6.4	6.0	1.9
	10	28.4	35.9	45.3	19.8	16.4	23.1
653520	2	16.6	14.3	17.9	11.1	9.4	4.1
	10	27.4	30.0	43.0	20.8	13.9	33.4
653190	2	18.3	21.7	21.0	11.6	7.2	3.7
	10	32.5	39.1	54.3	25.8	9.9	8.2
653550	2	18.9	23.3	25.3	12.7	8.3	2.6
	10	33.1	39.5	55.3	29.7	15.0	14.5
653570	2	16.6	14.5	18.6	11.2	6.4	2.4
	10	30.3	30.0	47.0	28.4	14.0	21.8
653610	2	17.8	18.2	22.0	13.5	11.0	6.2
	10	35.2	37.0	48.6	28.7	16.9	11.5
653300	2	15.6	18.4	24.1	9.2	4.3	0.5
	10	29.3	33.0	47.6	17.1	8.6	4.5
653060	2	18.2	17.8	17.1	4.8	1.6	4.9
	10	29.6	32.1	43.0	11.5	3.8	5.2
655050	2	16.4	20.3	15.8	7.4	6.8	10.2
	10	28.6	39.5	31.6	15.3	10.9	11.9
655160	2	15.4	21.4	18.4	7.3	8.5	8.4
	10	27.4	42.0	36.0	18.2	17.4	10.5
655030	2	15.7	20.7	17.1	5.0	2.4	6.1
	10	29.3	40.0	29.2	13.9	7.3	14.9
655020	2	13.2	17.0	16.3	5.3	4.6	1.7
	10	25.1	36.4	29.6	12.2	10.8	11.6
655070	2	15.6	19.3	17.0	8.0	8.3	16.4
	10	30.1	35.0	31.4	17.4	20.0	22.6
655010	2	9.0	16.1	23.3	4.8	9.8	22.3
	10	17.8	26.5	36.5	6.9	11.6	24.9

GCM - MRI; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	4.8	3.1	6.3	10.0	20.5	25.6
	10	12.7	7.8	12.8	20.1	35.6	45.1
655940	2	3.7	2.7	5.2	10.4	16.8	18.9
	10	9.1	6.6	8.5	18.8	29.6	37.8
655990	2	3.9	2.9	4.9	8.3	15.4	19.8
	10	9.8	8.3	10.5	16.9	30.9	37.5
655780	2	1.7	2.5	6.5	11.2	18.3	22.3
	10	4.5	5.7	12.5	21.9	30.7	34.6
655850	2	3.8	5.3	8.9	9.6	15.8	20.3
	10	7.8	10.6	14.0	21.0	29.7	33.6
655480	2	4.2	4.8	11.1	12.7	12.8	17.1
	10	9.9	15.0	21.6	22.5	22.6	32.9
655600	2	2.8	7.0	8.9	11.7	12.8	10.4
	10	8.0	13.4	18.3	20.5	23.1	22.8
655570	2	4.2	8.7	12.7	13.2	14.7	13.6
	10	11.7	17.9	26.2	25.8	31.1	31.1
655630	2	4.6	4.5	7.5	8.9	11.9	14.0
	10	8.3	10.3	20.5	20.0	22.7	24.8
655620	2	3.3	5.8	9.4	10.8	14.2	12.9
	10	7.4	13.5	19.7	18.5	23.2	24.9
655550	2	4.9	5.7	8.3	11.8	10.0	10.7
	10	10.7	11.4	18.7	20.5	18.7	20.6
655450	2	5.7	5.7	7.0	12.7	13.1	13.6
	10	7.5	9.8	12.5	19.6	20.1	25.0
654720	2	3.0	5.1	8.8	12.6	13.9	11.7
	10	7.4	10.8	14.4	21.9	20.8	19.8
653870	2	1.4	2.5	5.9	9.2	11.5	12.6
	10	4.9	5.5	11.6	15.6	19.8	22.2
653760	2	1.7	1.3	5.8	11.6	13.2	15.0
	10	8.2	6.5	13.3	19.5	21.0	25.6
653800	2	2.3	4.8	11.2	11.2	14.1	14.1
	10	8.7	13.8	20.2	19.4	22.1	27.1
653440	2	2.2	2.4	5.7	11.0	14.4	21.1
	10	3.7	4.6	10.8	17.7	23.9	34.3
653380	2	0.9	1.7	5.7	9.4	11.8	14.0
	10	3.9	6.0	12.5	17.7	21.0	26.7
653350	2	0.6	3.5	6.9	8.1	8.8	12.4
	10	4.3	6.8	12.7	17.2	18.0	26.9
655280	2	3.0	4.2	7.4	10.1	9.7	14.7
	10	7.1	6.8	11.7	17.7	25.1	23.7

GCM - MRI; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	13.4	13.3	16.6	12.8	9.7	9.7
	10	34.3	32.7	38.6	31.3	23.5	19.7
655940	2	10.5	5.4	5.1	9.3	9.3	7.4
	10	22.6	17.8	18.5	24.1	23.7	18.2
655990	2	9.1	4.8	5.2	9.8	8.4	10.1
	10	19.8	14.1	13.4	24.1	19.3	19.0
655780	2	8.9	4.5	6.7	12.8	11.8	8.4
	10	17.6	11.1	14.7	30.2	21.3	17.2
655850	2	11.1	7.7	9.4	17.7	10.9	8.1
	10	20.8	18.2	20.2	34.8	22.7	16.7
655480	2	17.3	21.8	22.5	10.3	5.0	6.7
	10	34.2	36.9	39.7	19.6	12.6	12.2
655600	2	10.8	13.1	13.1	7.5	3.8	5.1
	10	25.6	27.4	31.9	17.5	10.6	10.6
655570	2	7.6	8.8	10.7	9.8	8.3	6.0
	10	21.9	20.0	26.7	24.4	22.8	12.9
655630	2	9.2	10.3	10.9	7.2	3.9	3.2
	10	21.4	20.8	25.0	19.3	13.0	9.2
655620	2	8.6	8.1	12.1	10.2	5.0	5.5
	10	22.9	18.5	25.3	19.0	12.5	11.1
655550	2	11.8	15.8	15.4	8.0	3.3	5.0
	10	22.4	28.2	30.6	17.5	10.0	10.4
655450	2	11.0	14.0	18.2	8.5	3.4	9.5
	10	22.0	25.8	35.5	20.4	12.2	17.1
654720	2	7.7	3.6	6.7	7.9	5.6	6.2
	10	20.3	10.6	18.1	16.6	14.3	16.4
653870	2	9.3	5.2	7.5	6.7	3.7	4.4
	10	20.3	13.3	20.0	14.1	10.9	13.9
653760	2	18.7	22.8	18.1	10.5	4.3	6.6
	10	40.6	42.4	36.6	19.2	9.8	16.0
653800	2	12.4	9.7	10.8	13.3	7.4	11.1
	10	25.7	22.5	27.9	22.3	15.0	17.6
653440	2	13.1	11.0	14.4	11.9	5.6	6.7
	10	28.5	21.5	27.8	18.9	11.1	10.4
653380	2	17.1	17.1	15.0	11.9	5.1	5.7
	10	34.6	31.9	30.9	15.4	8.5	12.0
653350	2	17.7	20.9	16.8	9.8	3.5	0.6
	10	34.6	36.9	38.7	18.0	8.1	10.3
655280	2	19.2	25.0	18.4	12.8	3.9	3.1
	10	32.2	39.8	25.9	29.7	15.2	7.6

GCM - MRI; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	3.2	4.6	6.6	9.1	13.5	14.7
	10	6.3	6.7	14.0	19.4	26.2	21.0
655100	2	3.1	1.4	3.0	6.4	11.0	14.6
	10	5.2	4.2	8.5	13.6	23.1	21.0
655220	2	2.2	1.6	3.0	6.1	8.8	12.1
	10	2.5	3.0	7.6	12.2	17.3	19.5
655180	2	1.4	3.6	3.5	6.3	8.1	13.1
	10	6.9	6.4	10.1	13.2	18.7	26.6
653520	2	6.5	4.3	7.8	8.7	10.8	14.1
	10	7.1	6.5	13.9	16.0	22.2	28.2
653190	2	0.0	1.4	3.0	9.4	10.2	12.2
	10	0.0	3.2	7.7	19.4	23.6	27.8
653550	2	3.4	5.5	6.7	9.3	12.6	17.2
	10	6.4	7.4	13.7	21.0	28.7	33.3
653570	2	5.1	6.5	5.7	13.0	11.3	14.5
	10	8.3	10.2	18.6	28.2	27.0	30.1
653610	2	0.9	5.7	6.9	9.6	11.2	13.0
	10	6.5	8.7	14.0	21.6	27.7	30.1
653300	2	0.1	1.2	3.3	6.4	11.1	12.6
	10	2.6	3.3	7.5	11.7	24.3	27.2
653060	2	0.0	2.7	2.4	4.5	8.9	15.7
	10	0.0	3.5	5.2	8.0	16.0	24.5
655050	2	3.3	1.9	1.9	2.9	8.2	10.3
	10	4.6	4.9	6.0	7.8	17.2	20.4
655160	2	2.3	0.6	2.8	4.4	10.7	11.6
	10	7.5	4.7	6.3	11.8	21.5	21.1
655030	2	3.6	2.7	2.9	3.5	7.6	8.8
	10	5.8	3.5	5.3	7.8	18.6	19.4
655020	2	0.0	4.3	1.9	2.1	6.3	8.7
	10	0.0	4.8	3.2	5.1	13.4	16.0
655070	2	0.1	2.2	2.1	5.1	8.5	11.6
	10	0.3	4.2	3.9	9.5	14.0	23.4
655010	2	2.7	0.0	0.0	0.3	3.8	5.1
	10	4.6	2.4	0.2	1.6	9.5	12.5

GCM - MRI; Downscaling Method - LARS-WG

SRES A2 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	17.7	19.6	17.9	8.3	3.0	5.6
	10	29.5	30.7	29.2	23.1	8.3	8.5
655100	2	17.7	23.1	16.1	8.3	4.2	4.1
	10	30.2	35.6	29.8	18.4	7.3	9.0
655220	2	15.9	17.2	18.3	8.4	4.9	3.3
	10	31.6	32.5	39.5	18.3	9.3	4.9
655180	2	17.2	20.1	16.8	6.5	5.8	10.6
	10	30.9	33.1	41.3	15.8	12.1	14.0
653520	2	16.3	13.7	18.0	10.3	7.4	11.4
	10	30.4	27.7	39.4	17.5	10.4	13.5
653190	2	18.3	22.8	22.5	10.8	5.0	1.8
	10	35.1	37.0	52.3	21.9	7.3	11.3
653550	2	19.2	23.0	26.1	11.8	7.6	4.6
	10	35.4	38.0	53.3	23.7	13.0	9.6
653570	2	16.3	14.4	18.3	12.3	4.9	6.8
	10	32.8	27.1	43.5	24.8	10.1	10.0
653610	2	18.4	18.2	22.8	11.8	8.3	3.8
	10	38.1	35.2	44.7	22.9	12.6	12.9
653300	2	13.5	17.7	19.4	9.5	3.4	1.3
	10	21.9	35.6	42.5	20.2	5.3	4.0
653060	2	14.3	18.7	14.4	4.1	1.3	2.4
	10	21.3	35.9	38.8	12.0	3.2	2.9
655050	2	14.7	22.1	14.5	8.8	7.8	4.6
	10	27.7	42.2	30.8	15.7	10.4	5.7
655160	2	15.6	21.6	18.0	7.5	10.8	5.5
	10	29.0	44.0	36.6	18.7	19.2	8.0
655030	2	14.9	20.7	15.4	5.1	4.1	6.4
	10	28.1	41.4	29.5	13.9	9.0	8.3
655020	2	12.6	17.7	14.3	5.4	7.4	3.6
	10	25.8	38.7	29.2	12.4	12.7	6.4
655070	2	15.7	16.1	15.2	6.2	7.7	4.6
	10	30.8	34.1	31.9	19.1	19.0	6.8
655010	2	11.1	21.5	15.3	5.5	4.4	22.1
	10	23.5	33.2	22.4	7.8	6.7	27.2

GCM - MRI; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655920	2	4.8	3.2	5.4	9.5	19.2	25.2
	10	11.7	8.2	10.9	18.1	36.6	41.0
655940	2	3.4	2.6	4.6	9.8	15.4	20.9
	10	8.6	5.8	8.1	17.1	27.6	38.9
655990	2	4.2	2.9	4.8	8.3	14.1	20.1
	10	9.0	8.0	9.6	14.8	28.6	37.1
655780	2	2.3	3.3	6.5	9.8	17.6	22.7
	10	5.3	7.0	12.5	18.9	29.1	36.4
655850	2	4.3	5.6	8.4	9.3	16.1	21.1
	10	8.6	10.5	14.8	18.7	29.8	36.4
655480	2	3.2	3.4	10.9	12.4	14.9	18.1
	10	6.9	11.2	21.7	20.6	27.2	34.0
655600	2	3.2	6.5	8.9	11.8	12.7	11.1
	10	7.0	12.0	16.0	19.5	21.0	22.9
655570	2	4.0	7.2	11.7	14.1	14.3	14.5
	10	9.7	14.1	22.2	25.0	26.7	30.8
655630	2	4.2	4.1	6.9	9.3	12.2	14.4
	10	7.0	8.5	16.9	18.5	20.0	25.4
655620	2	3.0	4.5	8.6	10.4	13.0	13.7
	10	6.4	11.2	16.8	16.9	20.3	24.8
655550	2	4.7	4.8	7.7	12.8	11.2	11.9
	10	8.8	10.2	16.1	20.1	17.2	20.4
655450	2	5.7	4.3	6.0	11.9	14.3	15.7
	10	8.6	7.2	11.0	19.7	22.5	28.1
654720	2	2.9	4.3	7.6	12.7	13.8	14.6
	10	6.6	9.2	12.6	21.2	21.0	23.4
653870	2	1.0	1.8	4.6	8.7	11.2	14.1
	10	4.1	4.2	9.2	14.0	19.4	23.9
653760	2	1.4	1.4	5.2	11.2	11.8	16.4
	10	7.6	6.0	11.6	19.4	19.5	28.2
653800	2	3.5	5.2	10.4	13.0	15.5	17.0
	10	8.5	11.0	17.7	21.5	24.3	31.1
653440	2	1.9	2.0	5.3	12.4	16.2	23.0
	10	3.4	3.3	9.1	19.5	26.9	36.5
653380	2	1.2	2.0	5.2	11.4	12.2	15.8
	10	3.5	4.9	9.9	20.3	23.7	29.6
653350	2	1.8	2.8	6.5	8.8	8.8	13.7
	10	3.8	4.9	10.9	18.5	20.3	29.0
655280	2	1.2	2.2	6.0	8.9	8.0	12.9
	10	5.2	4.3	9.0	16.0	21.8	27.2

GCM - MRI; Downscaling Method - LARS-WG**SRES B1 (2046 - 2065)****DRWH Reliability (%)**

per capita roof area							
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655920	2	13.8	11.4	11.1	12.1	10.5	11.0
	10	27.7	28.4	32.8	32.3	26.6	19.5
655940	2	9.6	4.8	3.8	7.3	9.4	7.2
	10	19.1	16.4	15.4	19.7	27.1	16.4
655990	2	8.3	4.5	3.8	7.3	9.3	9.6
	10	16.7	13.3	11.4	19.8	22.0	17.5
655780	2	8.1	3.9	5.5	8.8	9.1	8.1
	10	16.3	11.0	14.3	24.3	27.2	14.7
655850	2	11.3	7.0	8.0	13.3	10.0	7.6
	10	22.4	17.5	19.1	29.9	27.5	14.3
655480	2	17.2	23.1	22.3	10.9	5.2	6.8
	10	33.4	41.0	40.5	21.6	12.7	11.1
655600	2	9.8	11.6	11.1	7.3	3.2	7.2
	10	22.9	23.9	26.2	18.9	11.3	12.1
655570	2	7.6	7.9	10.5	9.7	7.0	7.6
	10	21.2	18.5	23.2	25.9	22.6	15.6
655630	2	9.4	9.2	9.7	7.1	3.6	4.4
	10	19.8	17.3	20.5	20.1	13.7	9.9
655620	2	8.4	7.1	11.1	10.1	4.7	6.9
	10	20.9	16.0	21.7	19.9	12.6	12.4
655550	2	11.1	13.8	14.0	8.0	3.5	6.4
	10	20.5	23.3	26.3	17.7	9.8	12.2
655450	2	11.1	11.9	16.0	8.9	3.5	9.8
	10	21.5	20.6	30.6	22.5	10.5	17.9
654720	2	8.4	3.8	6.3	6.8	5.5	5.3
	10	17.1	10.2	17.2	15.1	13.5	14.0
653870	2	8.7	4.2	6.9	5.7	3.9	3.6
	10	16.7	11.2	19.0	12.3	10.1	11.0
653760	2	17.5	20.7	17.8	9.9	3.9	5.4
	10	32.7	36.8	35.8	17.7	9.1	13.4
653800	2	12.5	7.8	9.3	11.4	6.8	10.8
	10	25.9	18.7	23.0	17.9	15.4	16.8
653440	2	12.2	8.9	13.0	9.9	4.7	5.5
	10	27.3	18.1	23.8	14.9	10.5	8.4
653380	2	17.1	14.3	14.0	10.2	4.7	5.1
	10	33.9	28.1	26.8	13.6	8.2	10.6
653350	2	16.8	17.5	15.3	9.3	3.5	1.1
	10	33.9	31.7	34.3	15.9	9.1	8.6
655280	2	18.9	22.3	20.1	10.2	3.9	2.6
	10	32.4	35.5	41.3	32.2	12.6	12.5

GCM - MRI; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jan	Feb	Mar	Apr	May	Jun
655360	2	2.2	2.1	4.4	7.8	12.0	14.3
	10	5.0	3.5	9.5	13.5	23.4	28.4
655100	2	1.8	0.6	2.2	4.7	8.4	13.1
	10	4.0	2.1	5.5	8.9	18.2	27.5
655220	2	1.9	1.4	3.5	7.0	9.8	12.5
	10	2.2	2.2	8.2	13.3	20.8	23.3
655180	2	1.3	0.7	2.8	5.4	7.6	14.2
	10	5.8	3.1	7.2	10.6	17.6	29.0
653520	2	6.9	2.0	6.1	8.2	10.4	13.5
	10	6.9	3.3	10.6	14.0	21.8	28.3
653190	2	0.0	0.7	2.0	7.3	10.1	11.6
	10	0.0	1.9	5.1	13.9	23.3	29.3
653550	2	3.0	2.1	4.5	7.7	12.1	18.3
	10	6.0	3.7	9.8	15.6	27.0	35.6
653570	2	5.8	3.3	4.2	11.5	11.2	14.5
	10	8.7	5.3	13.0	22.5	26.7	32.6
653610	2	0.4	2.6	5.6	8.9	11.7	13.4
	10	6.5	4.7	11.1	18.5	27.3	33.2
653300	2	0.7	0.2	1.9	5.1	11.5	13.2
	10	2.9	2.0	4.7	8.8	20.3	25.6
653060	2	0.0	2.0	2.2	4.1	9.0	15.6
	10	0.0	3.8	5.3	7.1	14.6	23.4
655050	2	2.8	2.3	2.5	2.9	8.0	11.9
	10	4.3	4.4	7.4	6.6	17.6	24.1
655160	2	2.1	0.8	3.1	3.3	10.4	13.0
	10	6.2	4.4	5.8	7.8	21.6	25.0
655030	2	3.0	2.5	3.0	2.9	7.7	10.0
	10	4.9	3.8	4.5	5.7	18.8	23.2
655020	2	0.0	3.5	2.4	1.9	5.5	9.5
	10	0.1	4.1	3.8	3.8	12.2	19.6
655070	2	0.2	3.1	3.5	4.0	8.9	15.0
	10	0.4	5.9	5.3	7.7	16.8	27.4
655010	2	2.5	0.2	1.2	0.2	3.8	8.7
	10	6.5	3.2	3.8	2.3	10.4	16.7

GCM - MRI; Downscaling Method - LARS-WG

SRES B1 (2046 - 2065)

DRWH Reliability (%)

		per capita roof area					
Gauge	sq. m	Jul	Aug	Sep	Oct	Nov	Dec
655360	2	15.9	20.8	17.4	9.4	2.3	5.2
	10	27.9	35.3	28.1	22.9	6.1	9.2
655100	2	16.8	23.8	16.1	8.5	3.1	3.1
	10	28.9	38.8	28.6	17.5	5.6	9.8
655220	2	17.9	18.1	18.3	9.2	3.7	4.7
	10	34.0	34.6	36.4	18.6	8.1	6.1
655180	2	18.2	19.7	17.1	5.0	2.9	7.4
	10	31.6	31.5	43.0	18.0	12.3	11.8
653520	2	17.6	13.5	17.5	8.7	6.1	10.5
	10	29.8	26.7	40.1	18.8	10.4	12.9
653190	2	19.0	21.1	24.0	9.2	4.1	1.2
	10	35.5	35.0	52.7	23.6	7.3	10.3
653550	2	18.9	22.3	26.4	10.2	5.4	4.0
	10	34.8	36.3	53.3	25.3	12.3	8.5
653570	2	16.3	13.6	16.8	8.9	4.4	6.1
	10	31.5	25.7	43.9	25.1	10.5	9.5
653610	2	18.2	17.7	21.9	9.4	5.4	2.7
	10	36.6	33.5	46.2	24.1	12.3	11.2
653300	2	15.2	17.2	20.9	8.2	3.6	0.6
	10	25.8	34.7	43.9	17.6	7.3	3.0
653060	2	17.4	17.7	15.9	4.0	1.0	2.7
	10	26.0	34.0	41.6	11.2	2.8	2.9
655050	2	16.2	21.8	15.5	10.4	7.0	4.4
	10	33.3	42.3	29.4	18.1	9.3	5.4
655160	2	15.8	22.0	18.1	8.4	11.1	4.4
	10	33.8	43.9	33.7	19.7	16.3	6.7
655030	2	15.4	20.7	17.0	4.9	4.7	4.7
	10	33.3	41.8	27.3	13.9	7.9	6.1
655020	2	14.0	18.2	14.6	6.3	9.1	3.8
	10	31.0	39.5	26.0	14.0	11.7	6.0
655070	2	16.9	19.5	18.1	5.9	6.0	9.5
	10	36.1	39.3	30.0	14.9	13.4	14.6
655010	2	12.9	18.6	17.3	3.8	9.6	34.6
	10	25.9	27.7	27.4	10.1	13.4	34.6