演習林（東大）, 61, 83-115 (2019)

# 東京大学演習林水文観測・水質分析報告
# （自 2016 年 1 月至 2016 年 12 月）

東京大学大学院農学生命科学研究科附属演習林基盤データ整備委員会水文水質部門

# Report of the Hydrological Observations and Chemical Analysis of Water Quality in the University of Tokyo Forests
# (Jan. 2016 - Dec. 2016)

Hydrology and Water Quality Division, Fundamental Data Development Committee,
The University of Tokyo Forests, Graduate School of Agricultural and Life Sciences,
The University of Tokyo

## I. はじめに

2011 年 6 月に策定された「東京大学演習林教育研究計画 2011～2020」に基づき，東京大学演習林で収集された 2016 年の日降水量・日流出量・渓流水の水質データ・降水の水質データを報告する。

また，これまで演習林 57 号・58 号・59 号・60 号において報告した降水量・日流出量・降水の水質データや採水期間に誤りが見つかったため，付表の修正箇所と修正後の数値についてもあわせて報告する。

## II. 担当者

資料のとりまとめは，基盤データ整備委員会水文水質部門総括の浅野友子，同部門観測・分析データ管理総括の蔵治光一郎が，表－1 に示した各地方演習林の 2016 年の水文水質部門担当者と協力して行った。千葉演習林での観測・分析は森林理水及び砂防工学研究室が主体となり，千葉演習林の協力のもとで行った。

## III. 観測地の位置と概要

降水量観測地および降水水質観測地の位置，概要を表－2，流出量観測地および渓流水質観測地の位置，概要を表－3 にまとめた。

表－1　2016 年の担当者

| 担当 | 氏名 |
|---|---|
| 全体総括 | 浅野友子 |
| 観測・分析データ管理総括 | 蔵治光一郎 |
| 観測機器管理総括 | 田中延亮 |
| 観測・分析データ管理補助 | 加藤敦美 |
| 千葉演習林 | 江草智弘・小田智基・里見重成・塚越剛史・鶴見康幸・梁瀬桐子 |
| 北海道演習林 | 井上広喜・大川あゆ子・鴨田重裕 |
| 秩父演習林 | 浅野友子・才木道雄・高徳佳絵・原口竜成 |
| 生態水文学研究所 | 加藤敦美・鎌田幸子・蔵治光一郎・五名美江・高橋功一・新實夏美・松井理生・梁瀬桐子 |
| 樹芸研究所 | 浅野友子・井上広喜・鴨田重裕・小林徹行・須田常仁・辻良子・渡邉良広 |

（50音順）

表－2　降水量観測地および降水水質観測地の位置，概要

| 地方演習林名 | 観測地名 | 緯度(北緯)<br>経度(東経) | 標高(m) | 海からの距離(km) | 平均年降水量(mm) | 平均年降水量を求めた期間(年) |
|---|---|---|---|---|---|---|
| 千葉演習林 | 新田 | 35°12'19"<br>140°06'23" | 120 | 6.0 | 2330 | 1994-2012 |
| 北海道演習林 | 東郷ダム | 43°13'52"<br>142°35'12" | 392 | 92.2 | | |
| 秩父演習林 | ワサビ沢 | 35°54'43"<br>138°49'07" | 1030 | 79.5 | 1846* | 2012-2016 |
| 生態水文学研究所 | 白坂 | 35°13'07"<br>137°09'54" | 304 | 24 | 1872 | 1985-2014<br>(2005を除く) |
| 樹芸研究所 | 青野** | 34°41'29"<br>138°50'19" | 105 | 5.1 | 2232 | 1987-2016<br>(2015を除く) |
| | 加納** | 34°38'54"<br>138°51'12" | 10 | 3.5 | 2006 | 1985-2014 |

*降水水質測定用に設置している降水サンプラーで計測した値
**青野は降水量のみ，加納は降水水質のみを測定している

表－3　流出量観測地および渓流水質観測地の位置，概要

| 地方<br>演習林名 | 観測地名 | 緯度(北緯)<br>経度(東経) | 面積(ha)<br>標高(m) | 植生 | 海からの距離<br>(km) | 年平均気温<br>(℃) | 年平均気温を求めた期間<br>(年) | 流域の地質<br>(岩石の種類と地質時代) |
|---|---|---|---|---|---|---|---|---|
| 千葉<br>演習林 | 袋山沢A | 35°12'20"<br>140°06'11" | 0.8<br>129～225 | スギ・ヒノキ<br>老齢人工林 | 9.3 | 13.6* | 2004-2012 | 砂岩泥岩互層<br>(新第三紀) |
| | 袋山沢B | | 1.1<br>128～230 | スギ・ヒノキ<br>若齢人工林 | | | | |
| | 袋山沢C** | | 2.0<br>126～230 | A・B流域を中に含む流域 | | | | |
| 北海道<br>演習林 | 丸山沢 | 43°14'38"<br>142°34'27" | 220.0<br>415～810 | 冷温帯・亜寒帯性汎針広混交林 | 83.7 | | | 十勝溶結凝灰岩<br>(第四紀更新世) |
| 秩父<br>演習林 | バケモノ沢 | 35°54'47"<br>138°49'05" | 41.1<br>1030～1640 | 山地帯～亜高山帯下部の天然林 | 79.5 | 8.5* | 2012-2016 | 泥岩(泥岩優勢互相を含む)，砂岩泥岩互層<br>(中・古生代) |
| 生態水文<br>学研究所 | 白坂本谷 | 35°13'07"<br>137°09'54" | 88.5<br>304～629 | 暖温帯性落葉広葉樹二次林 | 24.0 | 12.8* | 1985-2014<br>(2005を除く) | 深層風化花崗岩<br>(中生代後期～古第三紀) |
| 樹芸<br>研究所 | 2号沢 | 34°41'59"<br>138°50'34" | 8.9<br>160～420 | スギ・ヒノキ<br>人工林 | 6.0 | 15.5* | 1997-2016 | 石英安山岩<br>(新第三紀中新世) |
| | 3号沢 | 34°42'09"<br>138°50'45" | 1.6<br>220～335 | クスノキ<br>人工林 | 6.4 | | | |

*降水量の観測地点で観測された値
**袋山沢Cでは渓流水質の測定は行っていない

## IV. 観測方法とデータのとりまとめ方法

降水量観測地における降水量の計測システムを表－4 に，流出量観測地における水位の計測システムと水位―流出量換算式を表－5 に，量水堰ノッチの種類，形状，個数，寸法を表－6 に，降水サンプラーの種類，水質測定・分析項目および使用機器を表－7 に，渓流水質測定・分析項目および使用機器を表－8 に示した。

観測データのとりまとめ法を以下に示す。

## ＜水文＞

(1)　日界は 0：00 とした。

(2)　日値は小数点以下第 2 位を四捨五入して第 1 位まで求めた値を記載した。

(3)　月合計値は各月の日値（表中に記載された小数点第 1 位までの値）を合計して求めた。年合計値は月合計値（表中に記載された小数点第 1 位までの値）を合計して求めた。

(4)　生データ（電子データ）は，生態水文学研究所，各地方演習林で保管している。生データの提供の要望があった場合には，そのデータが観測・測定・分析された地方演習林に申請することにより利用可能となる場合がある。

(5)　転倒マス雨量計で観測される降水量は，貯留型指示雨量計で観測される降水量に比べて，蒸発による系統誤差が発生して，過少評価になる場合がある。また，降雪の場合，転倒マス雨量計の受水マスに溜まった雪が解けて水となり，転倒マスに落下し，転倒マスが転倒した段階で降水量として記録されるため，時間に遅れがでる可能性がある。

(6)　千葉演習林では，転倒マス雨量計と貯留型指示雨量計の同時並行観測を行っており，貯留型指示雨量計で観測された値を，転倒マス雨量計で観測された値を用いて比例配分し，小数点以下第一位までで四捨五入した値を報告した。日降水量に欠測があるにもかかわらず年降水量が欠測とならない理由は，欠測期間中も 1 週間の降水量を貯留式指示雨量計で観測したためである。

(7)　北海道演習林丸山沢の流出量は，データの信頼性を検証中のため，東郷ダムの降水量とともに本報告では公開しない。

(8)　樹芸研究所 3 号沢の 9 月 22 日から 12 月 31 日までの流出量は，水位計の精度に疑念が生じデータの信頼性を担保できないため本報告では公開しない。詳細は樹芸研究所に問い合わせること。

表－4　降水量の計測システム

| 地方演習林名 | 観測地名 | 雨量計の機種 | データ記録装置の機種と記録時間 |
|---|---|---|---|
| 千葉演習林 | 新田 | 転倒マス雨量計<br>RT-5(池田計器(株))<br>1転倒　0.5mm | CR10X，10分<br>(Campbell社) |
| 秩父演習林 | ワサビ沢 | 転倒マス雨量計<br>No.OW-34-BP(大田計器(株))<br>1転倒　0.5mm | CR10X，6分<br>(Campbell社) |
| 生態水文学研究所 | 白坂 | 転倒マス雨量計<br>No.34-T(大田計器(株))<br>1転倒　0.5mm | CR6，5分<br>(Campbell社) |
| 樹芸研究所 | 青野 | 転倒マス雨量計<br>No.34-T(大田計器(株))<br>1転倒　0.5mm | CR10X，6分<br>(Campbell社) |

表－5　水位計測システムと水位―流出量換算式

| 地方演習林名 | 観測地名 | 水位計と<br>データ記録装置の種類 | 水位計測<br>インターバル | 水位－流出量<br>換算式 |
|---|---|---|---|---|
| 千葉演習林 | 袋山沢A<br>袋山沢B<br>袋山沢C | 圧力式水位計<br>KADEC21-MIZU<br>（ノースワン(株)） | 5分 | 沼知式[1)] |
| 秩父演習林 | バケモノ沢 | (1/1-8/28 12/2-12/31)<br>フロート式水位計<br>Shaft Encoder SE 200(OTT社)<br>データロガー<br>CR800(Campbell社) | 5分 | [3)] |
| | | (8/29-10/24)<br>静電容量式水位計[2)]<br>SE-TR/WT1000(TruTrack社) | | |
| 生態水文学研究所 | 白坂本谷 | 水晶式水位計<br>QWP-8-202E(明星電気(株))<br>データロガー<br>QWP-YY2(明星電気(株)) | 5分 | [4)] |
| 樹芸研究所 | 2号沢 | 静電容量式水位計<br>SE-TR(TruTrack社) | 5分 | [5)] |
| | 3号沢 | | | [6)] |

注
1) 式の詳細および係数は白木ら(1999)を参照のこと
2) 水位計の測定精度は±1%
3) 式の詳細および係数は木村ら(2015)を参照のこと
4) 式の詳細および係数，計算方法は東京大学大学院農学生命科学研究科附属演習林生態水文学研究所(2013)における2001年のデータの取り扱い方法を参照のこと
5) $Q = 1.3\times(Hi - 0.3185)^{2.5}$ $(Hi < 0.70)$
$Q = 1.3\times(0.70 - 0.3185)^{2.5} + 2/3\times\{(Hi - 0.70)\times\cos 23^{\circ}\}^{1.5}\times B\times C\times\sqrt{2g}$ $(H \geqq 0.70)$
B（堰堤幅）= 0.7m，C（流量計数）= 0.6，$g = 9.8\mathrm{m/s^2}$
$Hi = 0.001\times(0.9244x + 91.691)$
Q：流出量($m^3/s$)，Hi：換算後の水位(m)，x:ロガーに記録された水位(mm)
6) $Q = 1.65\times(Hi - 0.178)^{2.5}$
$Hi = 0.001\times(0.7001x + 140.85)$ (2016.1.1～9.13)
Q：流出量($m^3/s$)，Hi：換算後の水位(m)，x:ロガーに記録された水位(mm)

表－6　量水堰ノッチの種類，形状，個数，寸法

| 地方演習林名 | 観測地名 | ノッチの種類 | ノッチの形状，個数，寸法 |
|---|---|---|---|
| 千葉演習林 | 袋山沢A<br>袋山沢B<br>袋山沢C | 三角堰 | 90°，幅1.0m，高さ0.5m |
| 秩父演習林 | バケモノ沢 | 矩形堰 | 幅0.6m，高さ0.6m |
| 生態水文学研究所 | 白坂本谷 | 並列矩形堰 | 小幅ノッチ　1基，幅0.2m，高さ1.2m<br>大幅ノッチ　12基，幅1.0m，高さ0.7m<br>小幅ノッチと大幅ノッチの底の高さの差　0.5m |
| 樹芸研究所 | 2号沢 | 三角・矩形複合堰 | 三角堰部分90°，高さ0.35m<br>矩形堰部分　幅0.7m，高さ0.5m |
| | 3号沢 | 三角堰 | 90°，幅0.8m，高さ0.4m |

## ＜降水水質＞

(1)　原則として月 1 度の決められた日に降水を採取した。ただし，樹芸研究所では，通常，平日朝の出勤後，前回の測定から当日朝までの間に降水があったと判断された時に降水量の測定を行い，降水量が概ね 1mm 以上の降水を採水した。平日の朝以降，同日内で新たな降水があった場合は，基本的に翌出勤日の記録になるが，降水量に応じて，同日内で複数回の測定・サンプリングを行うこともあった。

(2)　降水サンプラーとして，ボトル（容量 50L）を地面に固定し，外蓋をしたのち，外蓋の中央に開けた穴にロート（上部内径 240mm）を挿したものを共通機器とした。ボトルの内側にポリ袋（容量 70L）を挿入し，ボトルの口に折り曲げ，外蓋を締めてポリ袋を固定した。サンプリング時に，ポリ袋ごと取り出しサンプル瓶にサンプルを回収した後，ボトルには新しいポリ袋を装着した。ボトルにたまった水の総量をメスシリンダーにより 10cc 刻みで測定し，降水量に換算した。大量の水がたまっている場合は，ポリ袋を取り出そうとすると不具合が予想されるので，サンプリング後に 1L 単位（プラスティックのビーカーなど）で水を掻き出し，残りをメスシリンダーで測定した。積雪期のある北海道演習林と秩父演習林では，積雪期には冬季用サンプラーとして既往最大積雪深を超える高さに大型ポリバケツ（北海道演習林では容量 90L，上部内径 460mm，秩父演習林では容量 45L，上部内径 380mm）を設置し，内側にポリ袋（北海道演習林では容量 120L，秩父演習林では容量 150L）を挿入して降雪を捕捉した。ロートは使用せず，バケツの口は開放して積雪を溜め，サンプリング時にポリ袋ごと取り出し，新たなポリ袋をバケツに装着した。ポリ袋ごと持ち帰り，研究室の室温で雪を溶かし，サンプル瓶に必要量を採集し，水量を測定した。なお千葉演習林では共通機器を使用せず，降水サンプラーは地面に固定されたボトル（容量 10L）に，内側にポリ袋を挿入しボトル口に折り曲げ外蓋を締めて固定し，ロート（上部内径 240mm）を挿したものを使用した。サンプリング時に，ポリ袋ごと取り出しサンプル瓶にサンプルを回収した。ポリ袋は毎回ではなく 2～3 回のサンプリングにつき一度交換し，交換しない場合は純水で洗浄して再使用した。樹芸研究所では共通機器を使用せず，代わりに貯留式指示雨量計（直径 200mm）を降水水質のサンプラーとして使用した。

(3)　降水の化学分析は，千葉演習林のサンプルは東京農工大学森林生態学研究室で，北海道演習林，秩父演習林，樹芸研究所のサンプルは樹芸研究所において，それぞれ実施した。測定・分析項目は，$Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$，$NH_4^+$，$Cl^-$，$NO_3^-$，$SO_4^{2-}$の 8 種のイオン濃度，および pH，EC の 10 項目である。秩父演習林の pH，EC は，サントリーグローバルイノベーションセンター（株）水科学研究所の実験室で測定した。樹芸研究所では pH，EC は測定していない。カチオンの分析・アニオンの分析は，イオンクロマトグラフによりイオン

濃度を分析した。

(4)　樹芸研究所の降水水質は，1 か月間に複数回サンプリング，分析された降水の濃度を降水量で加重平均して求めた濃度を報告した。表には各 1 か月間の初日と終日，その間のサンプルの個数を示した。1 か月間の複数回のサンプリングで 1 回でも欠落があった場合は，1 か月間全体を欠測として取り扱った。

(5)　生態水文学研究所白坂の降水水質データは，正確性を確保できないと判断したため，本報告では公開しない。

表－7　降水サンプラーの種類，水質測定・分析項目および使用機器

| 地方演習林名 | 観測地名 | 降水*サンプラー | 測定機器 | | 分析機器** |
|---|---|---|---|---|---|
| | | | pH | EC | $Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$，$NH^{4+}$，$Cl^-$，$NO_3^-$，$SO_4^{2-}$ |
| 千葉演習林 | 新田 | *** | WM-32EP（東亜ディーケーケー(株)）B-211（(株)堀場製作所） | WM-32EP（東亜ディーケーケー(株)）B-173（(株)堀場製作所） | イオンクロマトグラフ |
| 北海道演習林 | 東郷ダム | 共通冬季用 | D-74((株)堀場製作所) | D-74((株)堀場製作所) | |
| 秩父演習林 | ワサビ沢 | 共通冬季用 | D-54((株)堀場製作所) | ES-14((株)堀場製作所) | |
| 樹芸研究所 | 加納 | **** | － | － | |

*降水サンプラーは共通，冬季用とがあり，冬季用は雪または氷を融解後，サンプルを採取している
**分析機器の機種名および分析方法の詳細については，各地方演習林に問い合わせること
***千葉演習林のサンプラーについては本文参照のこと
****樹芸研究所のサンプラーについては本文参照のこと

## ＜渓流水水質＞

(1)　原則として月 1 度の決められた日に渓流水を採取した。千葉演習林袋山沢 A・B では渓流水が枯渇したため，採水を行っていない月があった。北海道演習林では例年，冬季（12 月から 4 月）の渓流水の採水は行っていないが，2016 年は例外的に 2 月に採水を行った。

(2)　渓流水の採取日の水位は，各地方演習林でそれぞれ別の測定方法で測定した。データ使用の際には各地方演習林に問い合わせること。秩父演習林バケモノ沢では，砂出し後の 10 月 25 日から 12 月 1 日までの期間に水漏れが止まらなかったため，11 月の水位は欠測とした。

(3)　渓流水の化学分析は，千葉演習林のサンプルは東京農工大学森林生態学研究室で，秩父演習林，生態水文学研究所のサンプルは生態水文学研究所で，北海道演習林，樹芸研究所のサンプルは樹芸研究所において，それぞれ実施した。測定・分析項目は，$Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$，$NH_4^+$，$Cl^-$，$NO_3^-$，$SO_4^{2-}$ の 8 種のイオン濃度，および pH，EC の 10 項目である。秩父演習林の pH，EC は，サントリーグローバルイノベーションセンター（株）水科学研究所の実験室で測定した。$NH_4^+$ は千葉演習林，北海道演習林，樹芸研究所のサンプルのみ分析した。$Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$ は，生態水文学研究所では原子吸光光度計により，イオン濃度も含んだ Na，K，Mg，Ca 原子の濃度を分析し，その他の演習林での $Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$ の分析，および，すべての演習林でのアニオンの分析は，イオンクロマトグラフによりイオン濃度を分析した。

表－8　渓流水質測定・分析項目および使用機器

| 地方演習林名 | 観測地名 | 測定機器 | | 分析機器* | |
|---|---|---|---|---|---|
| | | pH | EC | $Na^+$，$K^+$，$Mg^{2+}$，$Ca^{2+}$，$NH_4^+$ | $Cl^-$，$NO_3^-$，$SO_4^{2-}$ |
| 千葉演習林 | 袋山沢A | WM-32EP（東亜ディーケーケー(株)） | WM-32EP（東亜ディーケーケー(株)） | イオンクロマトグラフ | イオンクロマトグラフ |
| | 袋山沢B | B-211（(株)堀場製作所） | B-173（(株)堀場製作所） | | |
| 北海道演習林 | 丸山沢 | D-74((株)堀場製作所) | D-74((株)堀場製作所) | イオンクロマトグラフ | イオンクロマトグラフ |
| 秩父演習林 | バケモノ沢 | AUT-701（東亜ディーケーケー(株)） | ES-14((株)堀場製作所) | 原子吸光光度計** | イオンクロマトグラフ |
| 生態水文学研究所 | 白坂本谷 | D-74((株)堀場製作所) | D-74((株)堀場製作所) | 原子吸光光度計** | イオンクロマトグラフ |
| 樹芸研究所 | 2号沢 | ラコムテスター pHScanWP3（EUTECH） | ラコムテスター ECTestr10 low＋（EUTECH） | イオンクロマトグラフ | イオンクロマトグラフ |
| | 3号沢 | | | | |

*分析機器の機種名および分析方法の詳細については，各地方演習林に問い合わせること
**原子吸光光度計は，$NH_4^+$ を除いた 4 つの原子について，イオン濃度も含んだ各原子の濃度を分析している

## V. 観測結果

水文の観測結果を付表－1～7 に，降水の水質の測定・分析結果を付表－8～11 に，渓流水の水質の測定・分析結果を付表－12～18 に示した。

## VI. 演習林水文観測・水質分析報告　修正

演習林 57～60 号掲載の東京大学演習林水文観測・水質分析報告（2011 年～2015 年）の白坂（演習林 57 号 46 ページ付表－14，演習林 58 号 233 ページ付表－13，演習林 59 号 s11 ページ付表－13，演習林 60 号 94 ページ付表－12）の降水水質データは正確性を確保できないと判断したため，上記付表をすべて取り消す。

演習林 58 号掲載の東京大学演習林水文観測・水質分析報告（自 2013 年 1 月至 2013 年 12 月）223～225 ページ付表－1～3 の日流出量の一部を修正する。修正後の表を付表－19～21 に示した。

演習林 59 号掲載の東京大学演習林水文観測・水質分析報告（自 2014 年 1 月至 2014 年 12 月）s1～s3 ページ付表－1～3 の日流出量の一部，および s12 ページ付表－14 の採水期間の全部を修正する。修正後の表を付表－22～25 に示した。

演習林 60 号掲載の東京大学演習林水文観測・水質分析報告（自 2015 年 1 月至 2015 年 12 月）85～87 ページ付表－1～3 の年降水量および日流出量，95 ページ付表－13 の降水の水質データの一部と採水期間の全部を修正する。修正後の表を付表－26～29 に示した。なお，付表－26～28 において日降水量に欠測があるにもかかわらず年降水量が欠測とならない理由は，欠測期間中も 1 週間の降水量を貯留式指示雨量計で観測したためである。

## 引用文献

白木克繁・劉若剛・唐鎌勇・執印康裕・太田猛彦（1999）東京大学農学部附属千葉演習林袋山沢水文試験地の水収支解析．東京大学農学部演習林報告 102：71-86.

東京大学大学院農学生命科学研究科附属演習林生態水文学研究所（2013）生態水文学研究所日降水量・日流出量観測結果報告（VIII）．演習林（東大）53：29-53.

木村恒太・齋藤俊浩・相川美絵子・五十嵐勇治・千嶋武・浅野友子（2015）秩父演習林バケモノ沢における量水観測 . 演習林（東大）57：61-74.

付表－1　新田の日降水量と袋山沢 A の日流出量

**FUKUROYAMASAWA A　2016　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2413.1*　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | n/a | | n/a | 0.5 | n/a | n/a | 0.1 | | 0.2 | | 0.3 | | 0.8 | 29.5 | 1.8 | | 0.3 | 0.5 | 0.6 | 19.8 | 3.4 | 23.5 | 6.1 |
| 2 | | n/a | | n/a | n/a | n/a | n/a | 0.2 | | 0.1 | | 0.2 | | 0.5 | 5.9 | 0.3 | | 0.4 | | 0.9 | | 1.3 | | 3.3 |
| 3 | | n/a | | n/a | n/a | 0.2 | n/a | 0.2 | | 0.1 | | 0.1 | | 0.4 | 0.6 | 0.1 | 5.0 | 0.6 | 15.1 | 0.7 | 2.5 | 0.6 | | 1.8 |
| 4 | | n/a | | n/a | n/a | 0.3 | n/a | 15.9 | 31.5 | 4.1 | | 0.1 | | 0.3 | | 0.1 | 1.1 | 0.1 | | 0.3 | | 0.3 | 0.5 | 1.0 |
| 5 | | n/a | | n/a | n/a | 0.2 | n/a | 1.6 | | 0.7 | 3.6 | 0.2 | | 0.2 | | 0.1 | | 0.4 | | 0.2 | 4.6 | 0.2 | 4.1 | 1.5 |
| 6 | | n/a | | n/a | n/a | 0.3 | n/a | 0.6 | | 0.3 | | 0.1 | | 0.1 | | 0.0 | | 0.4 | | 0.4 | | 0.1 | | 1.2 |
| 7 | | n/a | | n/a | n/a | 31.7 | n/a | 21.6 | | 0.2 | | 0.1 | | 0.1 | | 0.0 | 5.6 | 0.2 | | 0.2 | | 0.1 | | 0.9 |
| 8 | | n/a | | n/a | n/a | 5.6 | n/a | 4.4 | | 0.1 | 2.1 | 0.2 | | 0.1 | | 0.0 | 18.5 | 0.5 | 7.8 | 0.3 | 1.5 | 0.1 | | 0.6 |
| 9 | | n/a | | n/a | n/a | 4.7 | n/a | 1.4 | 24.7 | 0.5 | 10.9 | 0.3 | 46.8 | 6.1 | | 0.0 | 0.6 | 0.3 | 3.6 | 0.2 | 9.2 | 0.2 | | 0.5 |
| 10 | | n/a | | n/a | n/a | 10.4 | n/a | 0.9 | 10.5 | 3.6 | | 0.1 | | 1.6 | | 0.0 | | 0.2 | | 0.2 | 0.5 | 0.0 | | 0.6 |
| 11 | | n/a | | n/a | n/a | 2.9 | n/a | 0.5 | 37.7 | 15.6 | | 0.0 | | 0.4 | | 0.0 | 41.4 | 3.6 | | 0.1 | 53.4 | 14.6 | | 0.2 |
| 12 | 1.0 | n/a | | n/a | n/a | 1.8 | n/a | 0.3 | | 2.0 | | 0.0 | | 0.2 | | 0.0 | 0.6 | 1.3 | | 0.0 | 0.5 | 1.9 | | 0.0 |
| 13 | 0.5 | n/a | 1.6 | n/a | n/a | 1.1 | n/a | 0.2 | | 0.8 | 82.4 | 23.1 | 1.0 | 0.2 | | 0.0 | 20.1 | 3.3 | 4.7 | 0.1 | | 0.8 | 12.8 | 0.1 |
| 14 | | n/a | 28.9 | n/a | n/a | 14.6 | 46.5 | 17.2 | | 0.4 | | 2.5 | 1.6 | 0.4 | | 0.0 | 12.3 | 3.4 | | 0.1 | 15.3 | 0.8 | 53.3 | 19.3 |
| 15 | | n/a | 3.2 | n/a | n/a | 15.3 | | 2.2 | | 0.3 | | 0.8 | | 0.4 | | 0.0 | 1.1 | 1.3 | | 0.0 | 1.5 | 2.2 | | 1.5 |
| 16 | | n/a | | n/a | n/a | 3.0 | | 0.9 | | 0.2 | 5.6 | 0.4 | 0.5 | 0.2 | 90.0 | 4.2 | | 0.6 | | 0.0 | | 0.8 | | 0.7 |
| 17 | 8.0 | n/a | | n/a | n/a | 1.7 | 8.6 | 0.9 | 48.0 | 8.4 | 0.5 | 0.3 | | 0.1 | 27.9 | 12.7 | | 0.3 | 62.6 | 6.1 | | 0.4 | | 0.3 |
| 18 | 45.6 | n/a | | n/a | n/a | 1.1 | 1.6 | 0.6 | | 3.7 | | 0.2 | | 0.1 | 4.3 | 0.3 | | 0.3 | 2.6 | 6.8 | | 0.2 | | 0.2 |
| 19 | | n/a | | n/a | n/a | 27.4 | | 0.4 | | 0.9 | 0.5 | 0.2 | | 0.1 | 10.6 | 0.2 | 22.3 | 1.1 | | 0.6 | 66.0 | 30.0 | | 0.2 |
| 20 | | n/a | 82.9 | n/a | n/a | 6.0 | | 0.3 | | 0.5 | 0.5 | 0.2 | | 0.1 | 8.7 | 0.5 | 63.1 | 25.9 | | 0.3 | 0.5 | 4.0 | | 0.1 |
| 21 | | n/a | | n/a | n/a | 2.3 | 22.5 | 0.4 | | 0.3 | 22.1 | 1.5 | 20.0 | 0.3 | 0.6 | 0.1 | 0.5 | 9.1 | | 0.4 | | 1.5 | | 0.1 |
| 22 | | n/a | | n/a | n/a | 1.4 | 5.9 | 3.7 | | 0.2 | 0.5 | 0.4 | 4.3 | 0.1 | 122.3 | 96.7 | 70.5 | 42.3 | | 0.3 | 8.5 | 1.5 | 18.7 | 0.3 |
| 23 | | n/a | 4.3 | n/a | n/a | 1.0 | 0.5 | 0.6 | | 0.2 | 57.0 | 26.2 | | 0.0 | | 7.3 | 3.2 | 7.1 | | 0.2 | 3.0 | 0.8 | 10.7 | 2.3 |
| 24 | | n/a | 0.5 | n/a | n/a | 0.7 | | 0.3 | | 0.1 | 1.0 | 3.4 | | 0.0 | 2.5 | 1.7 | 7.4 | 2.7 | | 0.3 | 15.5 | 5.9 | | 0.3 |
| 25 | | n/a | 3.7 | n/a | n/a | 0.5 | | 0.2 | | 0.1 | 27.2 | 10.1 | | 0.0 | | 1.0 | 2.7 | 2.2 | 3.6 | 0.2 | 15.0 | 6.0 | | 0.1 |
| 26 | | n/a | | n/a | n/a | 0.4 | | 0.2 | | 0.1 | | 2.2 | | 0.0 | | 0.8 | | 1.3 | | 0.0 | 4.5 | 2.2 | | 0.1 |
| 27 | | n/a | | n/a | n/a | 0.3 | 1.1 | 0.1 | 48.4 | 6.9 | | 0.9 | 7.6 | 0.1 | | 0.7 | 1.1 | 0.9 | | 0.0 | 7.0 | 1.6 | 9.1 | 0.2 |
| 28 | | n/a | | n/a | n/a | 0.2 | 27.3 | 2.6 | | 1.0 | 35.4 | 7.0 | | 0.0 | 11.2 | 0.9 | | 0.6 | 59.3 | 6.7 | 10.5 | 4.1 | | 0.1 |
| 29 | 26.5 | n/a | 7.0 | n/a | n/a | 0.1 | | 0.8 | | 0.3 | 1.0 | 2.6 | | 0.0 | 12.1 | 1.0 | | 0.4 | | 7.1 | | 1.6 | | 0.1 |
| 30 | 11.0 | n/a | | | n/a | 0.1 | | 0.3 | 18.1 | 0.8 | | 1.4 | | 0.0 | 21.6 | 3.7 | | 0.4 | 7.8 | 0.8 | | 0.8 | | 0.0 |
| 31 | | n/a | | | n/a | 0.1 | | | 1.0 | 0.5 | | | 3.2 | 0.0 | | 0.5 | | | | 0.4 | | | | 0.0 |
| total | 92.6 | n/a | 132.1 | n/a | n/a | n/a | n/a | 79.6 | 219.9 | 53.2 | 250.3 | 85.1 | 85.0 | 12.9 | 347.8 | 134.7 | 277.1 | 111.5 | 167.6 | 34.5 | 239.3 | 88.0 | 132.7 | 43.7 |

付表－2　新田の日降水量と袋山沢 B の日流出量

**FUKUROYAMASAWA B　2016　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2413.1*　**annual runoff: 947.6**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 0.3 | | 0.8 | 0.5 | 0.2 | n/a | 0.2 | | 0.6 | | 0.8 | | 1.2 | 29.5 | 1.7 | | 0.6 | 0.5 | 0.4 | 19.8 | 4.2 | 23.5 | 4.9 |
| 2 | | 0.3 | | 0.6 | n/a | 0.4 | n/a | 0.3 | | 0.4 | | 0.5 | | 0.8 | 5.9 | 0.6 | | 0.4 | | 0.4 | | 2.3 | | 2.5 |
| 3 | | 0.3 | | 0.4 | n/a | 0.4 | n/a | 0.3 | | 0.4 | | 0.4 | | 0.6 | 0.6 | 0.3 | 5.0 | 0.3 | 15.1 | 0.6 | 2.5 | 1.2 | | 1.3 |
| 4 | | 0.2 | | 0.4 | n/a | 0.3 | n/a | 16.6 | 31.5 | 4.3 | | 0.3 | | 0.4 | | 0.2 | 1.1 | 0.3 | | 0.5 | | 0.7 | 0.5 | 0.9 |
| 5 | | 0.2 | | 0.3 | n/a | 0.3 | n/a | 2.6 | | 1.5 | 3.6 | 0.3 | | 0.3 | | 0.1 | | 0.2 | | 0.3 | 4.6 | 0.6 | 4.1 | 0.8 |
| 6 | | 0.2 | | 0.3 | n/a | 0.7 | n/a | 1.2 | | 0.9 | | 0.3 | | 0.3 | | 0.1 | | 0.2 | | 0.3 | | 0.4 | | 0.5 |
| 7 | | 0.1 | | 0.2 | n/a | 32.8 | n/a | 20.2 | | 0.7 | | 0.2 | | 0.2 | | 0.1 | 5.6 | 0.2 | | 0.1 | | 0.3 | | 0.4 |
| 8 | | 0.1 | | 0.2 | n/a | 6.1 | n/a | 5.0 | | 0.5 | 2.1 | 0.2 | | 0.2 | | 0.1 | 18.5 | 0.4 | 7.8 | 0.4 | 1.5 | 0.3 | | 0.4 |
| 9 | | 0.1 | | 0.2 | n/a | 4.2 | n/a | 1.7 | 24.7 | 0.8 | 10.9 | 0.3 | 46.8 | 5.5 | | 0.1 | 0.6 | 0.4 | 3.6 | 0.4 | 9.2 | 0.5 | | 0.3 |
| 10 | | 0.1 | | 0.1 | n/a | 11.0 | n/a | 1.1 | 10.5 | 5.0 | | 0.2 | | 2.4 | | 0.0 | | 0.2 | | 0.3 | 0.5 | 0.3 | | 0.3 |
| 11 | | 0.1 | | 0.1 | n/a | 3.2 | n/a | 0.8 | 37.7 | 18.3 | | 0.2 | | 0.8 | | 0.0 | 41.4 | 3.8 | | 0.3 | 53.4 | 17.7 | | 0.2 |
| 12 | 1.0 | 0.1 | | 0.1 | n/a | 2.1 | n/a | 0.6 | | 3.3 | | 0.2 | | 0.5 | | 0.0 | 0.6 | 3.2 | | 0.3 | 0.5 | 3.3 | | 0.2 |
| 13 | 0.5 | 0.1 | 1.6 | 0.2 | n/a | 1.3 | n/a | 0.5 | | 1.5 | 82.4 | 24.0 | 1.0 | 0.4 | | 0.0 | 20.1 | 4.4 | 4.7 | 0.4 | | 1.3 | 12.8 | 0.4 |
| 14 | | 0.1 | 28.9 | 2.9 | n/a | 14.0 | 46.5 | 16.0 | | 1.0 | | 4.5 | 1.6 | 0.3 | | 0.0 | 12.3 | 5.3 | | 0.3 | 15.3 | 1.1 | 53.3 | 21.9 |
| 15 | | 0.1 | 3.2 | 0.9 | n/a | 15.8 | | 2.8 | | 0.7 | | 1.4 | | 0.2 | | 0.0 | 1.1 | 2.8 | | 0.3 | 1.5 | 2.9 | | 2.3 |
| 16 | | 0.1 | | 0.5 | n/a | 3.1 | | 1.3 | | 0.6 | 5.6 | 0.9 | 0.5 | 0.2 | 90.0 | 4.0 | | 1.3 | | 0.3 | | 1.4 | | 1.1 |
| 17 | 8.0 | 0.1 | | 0.4 | n/a | 1.6 | 8.6 | 1.2 | 48.0 | 8.1 | 0.5 | 0.7 | | 0.2 | 27.9 | 14.5 | | 0.8 | 62.6 | 7.2 | | 1.0 | | 0.7 |
| 18 | 45.6 | 9.0 | | 0.3 | n/a | 1.0 | 1.6 | 0.9 | | 5.5 | | 0.4 | | 0.2 | 4.3 | 0.9 | | 0.6 | 2.6 | 9.7 | | 0.8 | | 0.6 |
| 19 | | 1.5 | | 0.3 | n/a | 24.5 | | 0.6 | | 1.6 | 0.5 | 0.3 | | 0.1 | 10.6 | 0.5 | 22.3 | 1.1 | | 1.4 | 66.0 | 29.8 | | 0.5 |
| 20 | | 0.6 | 82.9 | 20.2 | n/a | 5.7 | | 1.6 | | 1.0 | 0.5 | 0.3 | | 0.1 | 8.7 | 0.9 | 63.1 | 27.6 | | 0.9 | 0.5 | 4.5 | | 0.4 |
| 21 | | 0.4 | | 21.2 | n/a | 2.0 | 22.5 | 2.2 | | 0.7 | 22.1 | 1.5 | 20.0 | 0.3 | 0.6 | 0.4 | 0.5 | 11.0 | | 0.6 | | 1.8 | | 0.4 |
| 22 | | 0.3 | | 2.1 | n/a | 1.3 | 5.9 | 4.8 | | 0.6 | 0.5 | 0.9 | 4.3 | 0.3 | 122.3 | 84.3 | 70.5 | 39.0 | | 0.5 | 8.5 | 1.5 | 18.7 | 0.5 |
| 23 | | 0.3 | 4.3 | 1.2 | n/a | 0.9 | 0.5 | 1.4 | | 0.7 | 57.0 | 26.2 | | 0.2 | | 6.9 | 3.2 | 7.4 | | 0.4 | 3.0 | 1.1 | 10.7 | 3.5 |
| 24 | | 0.3 | 0.5 | 0.8 | n/a | 0.7 | | 0.9 | | 0.7 | 1.0 | 4.5 | | 0.2 | 2.5 | 1.8 | 7.4 | 3.2 | | 0.3 | 15.5 | 9.2 | | 0.9 |
| 25 | | 0.2 | 3.7 | 0.7 | n/a | 0.5 | | 0.6 | | 0.7 | 27.2 | 10.5 | | 0.1 | | 1.1 | 2.7 | 3.0 | 3.6 | 0.3 | 15.0 | 6.6 | | 0.6 |
| 26 | | 0.2 | | 0.5 | n/a | 0.4 | | 0.5 | | 0.2 | | 3.0 | | 0.1 | | 0.6 | | 2.0 | | 0.3 | 4.5 | 2.5 | | 0.5 |
| 27 | | 0.2 | | 0.4 | n/a | 0.4 | 1.1 | 0.4 | 48.4 | 7.1 | | 1.2 | 7.6 | 0.2 | | 0.4 | 1.1 | 1.4 | | 0.3 | 7.0 | 1.4 | 9.1 | 0.6 |
| 28 | | 0.2 | | 0.4 | n/a | 0.4 | 27.3 | 2.8 | | 1.9 | 35.4 | 7.5 | | 0.1 | 11.2 | 0.4 | | 1.0 | 59.3 | 7.5 | 10.5 | 4.3 | | 0.5 |
| 29 | 26.5 | 0.4 | 7.0 | 0.4 | n/a | 0.3 | | 1.5 | | 0.9 | 1.0 | 4.2 | | 0.1 | 12.1 | 0.6 | | 0.7 | | 10.2 | | 1.7 | | 0.4 |
| 30 | 11.0 | 5.2 | | | n/a | 0.3 | | 0.8 | 18.1 | 1.3 | | 1.9 | | 0.0 | 21.6 | 4.7 | | 0.5 | 7.8 | 1.9 | | 1.1 | | 0.3 |
| 31 | | 1.5 | | | n/a | 0.2 | | | 1.0 | 1.2 | | | 3.2 | 0.1 | | 1.1 | | | | 1.3 | | | | 0.3 |
| total | 92.6 | 22.9 | 132.1 | 57.1 | n/a | 136.1 | n/a | 91.4 | 219.9 | 72.7 | 250.3 | 97.8 | 85.0 | 16.6 | 347.8 | 126.4 | 277.1 | 123.3 | 167.6 | 48.4 | 239.3 | 105.8 | 132.7 | 49.1 |

付表－3　新田の日降水量と袋山沢 C の日流出量

**FUKUROYAMASAWA C　2016　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2413.1*　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | n/a | | n/a | 0.5 | n/a | n/a | 0.2 | | 0.5 | | 0.7 | | 1.2 | 29.5 | 1.8 | | 0.3 | 0.5 | 0.3 | 19.8 | 4.4 | 23.5 | 6.6 |
| 2 | | n/a | | n/a | n/a | n/a | n/a | 0.2 | | 0.3 | | 0.4 | | 0.8 | 5.9 | 0.5 | | 0.2 | | 0.3 | | 2.2 | | 2.8 |
| 3 | | n/a | | n/a | n/a | 0.3 | n/a | 0.2 | | 0.3 | | 0.3 | | 0.6 | 0.6 | 0.2 | 5.0 | 0.2 | 15.1 | 0.5 | 2.5 | 1.1 | | 1.3 |
| 4 | | n/a | | n/a | n/a | 0.3 | n/a | 16.7 | 31.5 | 4.6 | | 0.2 | | 0.4 | | 0.1 | 1.1 | 0.2 | | 0.4 | | 0.7 | 0.5 | 1.0 |
| 5 | | n/a | | n/a | n/a | 0.3 | n/a | 2.4 | | 1.2 | 3.6 | 0.2 | | 0.3 | | 0.0 | | 0.1 | | 0.2 | 4.6 | 0.6 | 4.1 | 0.9 |
| 6 | | n/a | | n/a | n/a | 0.4 | n/a | 1.1 | | 0.6 | | 0.2 | | 0.5 | | 0.0 | | 0.1 | | 0.2 | | 0.4 | | 0.7 |
| 7 | | n/a | | n/a | n/a | 30.8 | n/a | 21.1 | | 0.5 | | 0.2 | | 0.2 | | 0.0 | 5.6 | 0.1 | | 0.2 | | 0.3 | | 0.5 |
| 8 | | n/a | | n/a | n/a | 5.6 | n/a | 5.2 | | 0.3 | 2.1 | 0.1 | | 0.2 | | 0.0 | 18.5 | 0.3 | 7.8 | 0.3 | 1.5 | 0.3 | | 0.4 |
| 9 | | n/a | | n/a | n/a | 4.3 | n/a | 1.7 | 24.7 | 0.8 | 10.9 | 0.2 | 46.8 | 6.0 | | 0.0 | 0.6 | 0.2 | 3.6 | 0.2 | 9.2 | 0.5 | | 0.4 |
| 10 | | n/a | | n/a | n/a | 10.4 | n/a | 1.1 | 10.5 | 4.7 | | 0.1 | | 2.2 | | 0.0 | | 0.1 | | 0.1 | 0.5 | 0.2 | | 0.4 |
| 11 | | n/a | | n/a | n/a | 3.1 | n/a | 0.8 | 37.7 | 17.4 | | 0.1 | | 0.6 | | 0.0 | 41.4 | 3.3 | | 0.1 | 53.4 | 17.5 | | 0.3 |
| 12 | 1.0 | n/a | | n/a | n/a | 1.8 | n/a | 0.5 | | 3.0 | | 0.1 | | 0.4 | | 0.0 | 0.6 | 2.2 | | 0.1 | 0.5 | 3.3 | | 0.4 |
| 13 | 0.5 | n/a | 1.6 | n/a | n/a | 1.2 | n/a | 0.5 | | 1.2 | 82.4 | 24.1 | 1.0 | 0.3 | | 0.0 | 20.1 | 3.8 | 4.7 | 0.1 | | 1.4 | 12.8 | 0.4 |
| 14 | | n/a | 28.9 | n/a | n/a | 13.8 | 46.5 | 17.2 | | 0.8 | | 4.1 | 1.6 | 0.2 | | 0.0 | 12.3 | 4.3 | | 0.1 | 15.3 | 1.3 | 53.3 | 22.1 |
| 15 | | n/a | 3.2 | n/a | n/a | 15.3 | | 2.9 | | 0.6 | | 1.2 | | 0.2 | | 0.0 | 1.1 | 2.0 | | 0.1 | 1.5 | 3.2 | | 2.3 |
| 16 | | n/a | | n/a | n/a | 3.2 | | 1.3 | | 0.4 | 5.6 | 0.8 | 0.5 | 0.1 | 90.0 | 4.0 | | 0.9 | | 0.1 | | 1.5 | | 1.3 |
| 17 | 8.0 | n/a | | n/a | n/a | 1.5 | 8.6 | 1.2 | 48.0 | 8.7 | 0.5 | 0.6 | | 0.1 | 27.9 | 13.5 | | 0.6 | 62.6 | 6.6 | | 0.9 | | 0.8 |
| 18 | 45.6 | n/a | | n/a | n/a | 1.1 | 1.6 | 0.9 | | 5.2 | | 0.4 | | 0.1 | 4.3 | 0.6 | | 0.4 | 2.6 | 8.5 | | 0.7 | | 0.6 |
| 19 | | n/a | | n/a | n/a | 25.2 | | 0.6 | | 1.5 | 0.5 | 0.3 | | 0.1 | 10.6 | 0.3 | 22.3 | 0.9 | | 1.0 | 66.0 | 31.2 | | 0.5 |
| 20 | | n/a | 82.9 | n/a | n/a | 5.9 | | 0.4 | | 0.9 | 0.5 | 0.3 | | 0.1 | 8.7 | 0.6 | 63.1 | 26.0 | | 0.6 | 0.5 | 5.2 | | 0.4 |
| 21 | | n/a | | n/a | n/a | 2.3 | 22.5 | 0.6 | | 0.6 | 22.1 | 1.6 | 20.0 | 0.2 | 0.6 | 0.2 | 0.5 | 10.0 | | 0.3 | | 2.1 | | 0.4 |
| 22 | | n/a | | n/a | n/a | 1.4 | 5.9 | 4.7 | | 0.5 | 0.5 | 0.7 | 4.3 | 0.2 | 122.3 | 88.3 | 70.5 | 39.3 | | 0.3 | 8.5 | 2.1 | 18.7 | 0.5 |
| 23 | | n/a | 4.3 | n/a | n/a | 1.0 | 0.5 | 1.2 | | 0.4 | 57.0 | 26.3 | | 0.1 | | 7.0 | 3.2 | 7.4 | | 0.2 | 3.0 | 1.5 | 10.7 | 3.6 |
| 24 | | n/a | 0.5 | n/a | n/a | 0.7 | | 0.8 | | 0.4 | 1.0 | 4.4 | | 0.1 | 2.5 | 1.7 | 7.4 | 3.1 | | 0.1 | 15.5 | 11.5 | | 0.9 |
| 25 | | n/a | 3.7 | n/a | n/a | 0.5 | | 0.5 | | 0.4 | 27.2 | 10.8 | | 0.1 | | 0.9 | 2.7 | 2.8 | 3.6 | 0.1 | 15.0 | 10.4 | | 0.6 |
| 26 | | n/a | | n/a | n/a | 0.4 | | 0.4 | | 0.4 | | 3.0 | | 0.0 | | 0.5 | | 1.7 | | 0.1 | 4.5 | 5.0 | | 0.5 |
| 27 | | n/a | | n/a | n/a | 0.4 | 1.1 | 0.3 | 48.4 | 7.5 | | 1.2 | 7.6 | 0.1 | | 0.3 | 1.1 | 1.2 | | 0.1 | 7.0 | 2.8 | 9.1 | 0.6 |
| 28 | | n/a | | n/a | n/a | 0.3 | 27.3 | 3.0 | | 1.7 | 35.4 | 7.8 | | 0.0 | 11.2 | 0.3 | | 0.8 | 59.3 | 7.0 | 10.5 | 7.4 | | 0.5 |
| 29 | 26.5 | n/a | 7.0 | n/a | n/a | 0.3 | | 1.5 | | 0.7 | 1.0 | 3.9 | | 0.0 | 12.1 | 0.5 | | 0.5 | | 8.9 | | 3.2 | | 0.4 |
| 30 | 11.0 | n/a | | | n/a | 0.2 | | 0.7 | 18.1 | 1.6 | | 1.9 | | 0.0 | 21.6 | 4.2 | | 0.4 | 7.8 | 1.4 | | 1.7 | | 0.3 |
| 31 | | n/a | | | n/a | 0.2 | | | 1.0 | 1.0 | | | 3.2 | 0.0 | | 0.8 | | | | 0.9 | | | | 0.3 |
| total | 92.6 | n/a | 132.1 | n/a | n/a | n/a | n/a | 89.9 | 219.9 | 68.7 | 250.3 | 96.2 | 85.0 | 15.4 | 347.8 | 126.3 | 277.1 | 113.4 | 167.6 | 39.4 | 239.3 | 124.6 | 132.7 | 52.7 |

付表－4　ワサビ沢の日降水量とバケモノ沢の日流出量

**BAKEMONOSAWA**　**2016**　**unit: mm/day**　n/a : *data not available*　*annual precipitation at Wasabizawa: n/a*　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | n/a | 0.3 | n/a | 0.2 | n/a | 0.6 | | 0.5 | | 0.4 | | 0.4 | | 0.2 | 2.5 | 0.2 | | 19.2 | 2.0 | 5.9 | 2.5 | n/a | n/a | n/a |
| 2 | n/a | 0.3 | n/a | 0.2 | n/a | 0.5 | | 0.5 | | 0.4 | | 0.4 | | 0.2 | 71.5 | 0.5 | | n/a | 0.5 | 5.1 | | n/a | n/a | 0.2 |
| 3 | n/a | 0.3 | n/a | 0.2 | n/a | 0.5 | | 0.5 | | 0.3 | | 0.3 | | 0.2 | 1.0 | 0.4 | 2.0 | 10.9 | 4.5 | 4.9 | | n/a | n/a | 0.2 |
| 4 | n/a | 0.3 | n/a | 0.2 | n/a | 0.5 | 13.5 | 0.4 | 33.5 | 0.5 | | 0.3 | 5.0 | 0.2 | | 0.3 | 1.0 | 9.2 | | 4.3 | | n/a | n/a | 0.2 |
| 5 | n/a | 0.3 | n/a | 0.2 | n/a | 0.4 | 1.5 | 0.4 | | 0.4 | 1.5 | 0.3 | 1.0 | 0.2 | | 0.2 | | 7.7 | 1.0 | 3.6 | | n/a | n/a | 0.2 |
| 6 | n/a | 0.3 | n/a | 0.2 | n/a | 0.3 | | 0.4 | 1.0 | 0.4 | | 0.3 | | 0.2 | | 0.2 | 0.5 | 6.4 | | 3.1 | | n/a | n/a | 0.2 |
| 7 | n/a | 0.3 | n/a | 0.2 | n/a | 0.3 | 44.5 | 0.7 | | 0.4 | | 0.3 | | 0.2 | | 0.2 | | 5.7 | | 2.7 | | n/a | n/a | 0.2 |
| 8 | n/a | 0.2 | n/a | 0.2 | n/a | 0.3 | | 0.7 | | 0.4 | | 0.3 | | 0.2 | | 0.2 | 45.0 | 6.5 | 3.0 | 3.1 | 1.0 | n/a | n/a | 0.2 |
| 9 | n/a | 0.2 | n/a | 0.2 | n/a | 0.4 | | 0.6 | 5.0 | 0.4 | 8.5 | 0.3 | 7.0 | 0.2 | | 0.2 | | 5.2 | 8.5 | 3.3 | 0.5 | n/a | n/a | 0.2 |
| 10 | n/a | 0.2 | n/a | 0.2 | n/a | 0.4 | | 0.6 | 8.5 | 0.4 | | 0.3 | | 0.2 | | 0.2 | | 4.1 | 0.5 | 2.9 | 4.0 | n/a | n/a | 0.2 |
| 11 | n/a | 0.2 | n/a | 0.2 | n/a | 0.4 | | 0.7 | 38.0 | 0.8 | | 0.3 | | 0.2 | | 0.2 | | 3.4 | 1.0 | 2.7 | 36.0 | n/a | n/a | 0.3 |
| 12 | n/a | 0.2 | n/a | 0.2 | n/a | 0.3 | | 0.7 | | 0.8 | 1.0 | 0.2 | | 0.2 | | 0.2 | 1.5 | 3.2 | 0.5 | 2.4 | | n/a | n/a | 0.3 |
| 13 | n/a | 0.2 | n/a | 0.2 | n/a | 0.3 | 2.5 | 0.6 | | 0.8 | 43.0 | 0.3 | 7.0 | 0.2 | | 0.2 | 45.0 | 4.5 | | 2.3 | | n/a | n/a | 0.3 |
| 14 | n/a | 0.2 | n/a | 0.4 | n/a | 0.3 | 10.5 | 0.7 | | 0.8 | 3.5 | 0.3 | 16.5 | 0.2 | | 0.2 | 1.0 | 4.1 | | 1.9 | 6.5 | n/a | n/a | 0.3 |
| 15 | n/a | 0.2 | n/a | 0.3 | n/a | 0.3 | | 0.6 | | 0.8 | 1.0 | 0.2 | 21.5 | 0.3 | 3.0 | 0.2 | | 3.7 | | 1.3 | 4.0 | n/a | n/a | 0.2 |
| 16 | n/a | 0.2 | n/a | 0.3 | n/a | 0.3 | | 0.5 | | 0.8 | 5.0 | 0.2 | 0.5 | 0.2 | 26.0 | 0.2 | | 3.4 | | 1.3 | | n/a | n/a | 0.2 |
| 17 | n/a | 0.2 | n/a | 0.2 | n/a | 0.4 | 17.5 | 0.6 | 30.5 | 1.0 | 1.0 | 0.2 | | 0.2 | 40.0 | 0.3 | 1.0 | 2.9 | 20.0 | 1.8 | | n/a | n/a | 0.2 |
| 18 | n/a | 0.2 | n/a | 0.2 | n/a | 0.4 | | 0.5 | | 1.0 | | 0.2 | 0.5 | 0.2 | 33.0 | 0.3 | 20.0 | 3.0 | | 1.7 | | n/a | n/a | 0.3 |
| 19 | n/a | 0.2 | n/a | 0.2 | n/a | 0.5 | | 0.5 | | 0.9 | 0.5 | 0.2 | 0.5 | 0.2 | 9.0 | 0.3 | 44.0 | 3.8 | | 1.8 | 12.5 | n/a | n/a | 0.2 |
| 20 | n/a | 0.2 | n/a | 0.5 | n/a | 0.6 | | 0.5 | | 0.8 | | 0.2 | | 0.2 | 20.0 | 0.3 | 91.5 | 14.1 | | 1.7 | | n/a | n/a | 0.2 |
| 21 | n/a | 0.2 | n/a | 1.2 | n/a | 0.7 | 22.0 | 0.5 | | 0.7 | 7.0 | 0.2 | 10.5 | 0.2 | | 0.6 | 2.5 | 25.6 | | 1.4 | 3.0 | n/a | n/a | 0.2 |
| 22 | n/a | 0.2 | n/a | 1.0 | n/a | 0.8 | 0.5 | 0.5 | | 0.6 | | 0.2 | 9.5 | 0.2 | 124.0 | 13.9 | 21.5 | 19.7 | | 1.6 | 1.0 | n/a | n/a | 0.3 |
| 23 | n/a | 0.2 | n/a | 1.1 | n/a | 0.8 | 0.5 | 0.5 | | 0.6 | 7.0 | 0.2 | 0.5 | 0.2 | 16.0 | 27.3 | 14.5 | 16.9 | | 1.7 | | n/a | n/a | 0.3 |
| 24 | n/a | 0.2 | n/a | 1.1 | n/a | 0.8 | 2.0 | 0.5 | | 0.5 | 3.0 | 0.2 | | 0.2 | | 19.8 | 3.5 | 14.8 | | 1.4 | n/a | n/a | n/a | 0.3 |
| 25 | n/a | 0.2 | n/a | 1.1 | n/a | 0.8 | | 0.5 | | 0.4 | 3.5 | 0.2 | | 0.2 | 0.5 | 13.2 | | 12.2 | 5.5 | n/a | n/a | n/a | n/a | 0.3 |
| 26 | n/a | 0.2 | n/a | 0.9 | n/a | 0.7 | | 0.4 | | 0.4 | | 0.2 | 11.0 | 0.2 | | 9.2 | | 10.4 | 0.5 | n/a | n/a | n/a | n/a | 0.4 |
| 27 | n/a | 0.2 | n/a | 0.9 | n/a | 0.7 | 2.0 | 0.4 | 3.5 | 0.4 | | 0.2 | 0.5 | 0.2 | 51.0 | 9.0 | | 8.8 | | n/a | n/a | n/a | n/a | 0.4 |
| 28 | n/a | 0.2 | n/a | 0.7 | n/a | 0.6 | 22.0 | 0.4 | | 0.4 | 10.0 | 0.2 | | 0.2 | 11.0 | 9.6 | 3.0 | 7.9 | 22.5 | n/a | n/a | n/a | n/a | 0.4 |
| 29 | n/a | 0.2 | n/a | 0.6 | n/a | 0.6 | | 0.4 | 0.5 | 0.4 | 1.0 | 0.2 | | 0.2 | 34.0 | 1.9 | 1.5 | 7.4 | 0.5 | n/a | n/a | n/a | n/a | 0.4 |
| 30 | n/a | 0.2 | | | n/a | 0.5 | | 0.4 | 11.5 | 0.4 | 0.5 | 0.2 | | 0.2 | 135.5 | 44.0 | 0.5 | 6.6 | | n/a | n/a | n/a | n/a | 0.5 |
| 31 | n/a | 0.2 | | | n/a | 0.5 | | | | 0.4 | | | 1.0 | 0.2 | | 30.2 | | | | n/a | | | n/a | 0.5 |
| total | n/a | 6.9 | n/a | 13.3 | n/a | 15.5 | 139.0 | 15.7 | 132.0 | 17.7 | 97.0 | 7.5 | 92.5 | 6.3 | 578.0 | 183.7 | 299.5 | n/a | 70.5 | n/a | n/a | n/a | n/a | n/a |

付表－5　白坂の日降水量と白坂本谷の日流出量

**SHIRASAKA HONTANI　2016　unit: mm/day**　　*annual precipitation at Shirasaka: 1830.0*　　**annual runoff:** *943.9*

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff | *rain* | runoff |
| 1 | | 1.2 | | 1.4 | | 1.2 | 2.0 | 1.6 | | 2.1 | | 2.0 | | 3.1 | 16.5 | 2.5 | | 0.9 | 6.5 | 6.4 | 7.5 | 2.4 | | 1.6 |
| 2 | | 1.2 | | 1.3 | | 1.2 | 0.5 | 1.6 | | 2.0 | | 1.8 | | 2.8 | 31.5 | 4.1 | | 0.8 | 0.5 | 4.9 | | 2.0 | | 1.5 |
| 3 | | 1.2 | | 1.2 | | 1.1 | 0.5 | 1.5 | 7.0 | 1.9 | | 1.8 | 13.0 | 3.1 | | 3.7 | | 0.8 | 34.5 | 8.5 | | 1.8 | | 1.4 |
| 4 | | 1.1 | | 1.1 | | 1.1 | 42.5 | 4.5 | 51.0 | 8.6 | 0.5 | 1.7 | 0.5 | 2.8 | 1.5 | 2.8 | | 0.8 | | 7.4 | | 1.7 | 10.5 | 1.5 |
| 5 | | 1.0 | | 1.1 | | 1.1 | | 2.6 | | 4.1 | 10.0 | 2.0 | | 2.5 | | 2.4 | 5.0 | 0.9 | 10.5 | 5.6 | | 1.7 | 0.5 | 1.9 |
| 6 | | 1.0 | | 1.0 | 5.0 | 1.2 | | 2.2 | 7.0 | 3.5 | | 1.7 | 1.0 | 2.3 | | 2.2 | 5.0 | 1.0 | | 5.0 | | 1.6 | 1.0 | 1.5 |
| 7 | | 1.0 | | 1.0 | 1.5 | 1.2 | 37.5 | 4.4 | 2.0 | 3.2 | 3.5 | 1.6 | | 1.9 | | 1.9 | | 0.8 | | 4.2 | | 1.6 | | 1.4 |
| 8 | | 1.0 | | 1.0 | | 1.1 | 0.5 | 4.6 | | 2.9 | | 1.6 | | 1.8 | | 1.7 | 28.0 | 2.0 | 4.0 | 4.1 | 7.5 | 1.8 | | 1.3 |
| 9 | | 1.0 | 1.0 | 1.0 | 22.5 | 1.8 | | 3.2 | 13.5 | 3.1 | 4.5 | 1.7 | 64.0 | 10.1 | | 1.6 | | 1.3 | 30.5 | 7.6 | | 1.7 | 0.5 | 1.3 |
| 10 | | 1.0 | | 0.9 | | 1.7 | | 2.8 | 18.0 | 3.6 | | 1.6 | | 5.3 | | 1.5 | | 1.0 | | 5.0 | 0.5 | 1.5 | | 1.3 |
| 11 | | 0.9 | | 0.9 | | 1.3 | | 2.5 | 30.0 | 11.4 | | 1.4 | | 3.8 | | 1.4 | | 0.9 | | 4.1 | 7.5 | 1.8 | | 1.2 |
| 12 | | 0.9 | | 0.9 | | 1.2 | | 2.3 | | 6.0 | 5.0 | 1.4 | | 3.3 | | 1.4 | | 0.9 | | 3.6 | | 1.5 | | 1.2 |
| 13 | | 0.9 | 28.0 | 1.3 | 2.0 | 1.2 | 12.5 | 2.2 | | 4.7 | 13.5 | 2.2 | 30.0 | 3.5 | | 1.3 | 20.0 | 1.6 | | 3.3 | | 1.5 | 27.5 | 1.7 |
| 14 | | 0.9 | 31.5 | 6.5 | 24.0 | 2.3 | 17.5 | 4.0 | | 4.0 | | 1.6 | 3.5 | 4.5 | | 1.3 | | 1.1 | | 3.0 | 9.0 | 1.6 | 9.0 | 3.4 |
| 15 | | 0.9 | | 3.1 | | 1.8 | | 2.7 | | 3.6 | | 1.5 | | 3.2 | | 1.3 | | 1.0 | | 2.8 | 5.5 | 1.9 | | 2.0 |
| 16 | | 0.9 | | 2.3 | | 1.5 | | 2.4 | 11.5 | 3.3 | 7.5 | 1.6 | | 2.9 | | 1.2 | 7.0 | 1.0 | | 2.6 | | 1.5 | | 1.8 |
| 17 | 0.5 | 0.8 | | 1.9 | | 1.4 | 12.5 | 2.8 | 26.0 | 6.7 | 0.5 | 1.5 | | 2.7 | | 1.1 | | 1.0 | 34.5 | 5.1 | | 1.5 | | 1.6 |
| 18 | 20.0 | 1.6 | | 1.7 | 18.5 | 1.5 | | 2.4 | | 4.3 | | 1.3 | | 2.4 | 1.5 | 1.1 | 24.0 | 1.9 | 0.5 | 3.6 | | 1.4 | | 1.5 |
| 19 | | 1.1 | | 1.6 | 62.0 | 18.2 | | 2.1 | | 3.7 | 5.0 | 1.4 | | 2.2 | 0.5 | 1.1 | 42.5 | 2.8 | | 3.1 | 18.0 | 2.2 | | 1.4 |
| 20 | 6.0 | 1.0 | 27.5 | 2.5 | | 6.2 | | 2.0 | | 3.4 | | 1.3 | | 2.0 | 7.0 | 1.1 | 75.5 | 23.2 | | 2.8 | | 1.8 | | 1.4 |
| 21 | 2.5 | 1.0 | | 2.7 | | 4.3 | 40.0 | 3.8 | | 3.1 | 27.5 | 3.0 | | 1.9 | | 1.2 | 1.0 | 9.8 | | 2.6 | 0.5 | 1.6 | | 1.3 |
| 22 | | 0.9 | | 2.2 | | 3.5 | 0.5 | 4.9 | | 2.9 | 12.0 | 2.2 | | 1.8 | | 1.0 | 49.0 | 16.7 | | 2.5 | | 1.5 | 67.5 | 5.3 |
| 23 | | 0.9 | | 2.0 | | 3.0 | 1.5 | 3.4 | | 2.7 | 55.5 | 13.8 | | 1.7 | | 1.0 | 14.5 | 10.6 | | 2.3 | | 1.4 | 0.5 | 8.9 |
| 24 | | 0.9 | | 1.7 | | 2.7 | 2.5 | 3.1 | | 2.5 | 12.5 | 5.6 | | 1.6 | 8.0 | 1.2 | 1.5 | 6.7 | | 2.1 | 5.5 | 1.6 | | 3.9 |
| 25 | | 0.8 | | 1.5 | | 2.5 | | 2.8 | | 2.4 | 11.5 | 5.8 | | 1.6 | | 1.0 | | 4.9 | 2.0 | 2.1 | | 1.4 | | 3.1 |
| 26 | | 0.9 | | 1.4 | | 2.2 | | 2.6 | 2.5 | 2.3 | | 4.2 | 50.5 | 4.8 | | 1.0 | | 3.9 | 9.5 | 2.3 | 2.0 | 1.3 | 3.5 | 2.7 |
| 27 | | 0.9 | 0.5 | 1.4 | | 2.1 | 3.5 | 2.5 | 1.5 | 2.3 | 2.0 | 3.4 | 0.5 | 4.5 | 2.0 | 1.0 | | 3.3 | 0.5 | 2.2 | 27.0 | 2.6 | 16.5 | 3.6 |
| 28 | | 0.9 | | 1.3 | 0.5 | 2.0 | 14.0 | 2.8 | | 2.1 | 17.5 | 4.4 | | 3.1 | 7.0 | 1.3 | 28.5 | 3.9 | 24.0 | 3.0 | | 2.4 | | 2.9 |
| 29 | 30.0 | 1.8 | 2.0 | 1.3 | | 1.8 | | 2.6 | 10.0 | 2.2 | 7.5 | 3.8 | | 2.8 | 2.5 | 1.0 | 15.5 | 6.8 | | 3.0 | | 2.0 | | 2.6 |
| 30 | 8.5 | 2.8 | | | | 1.7 | | 2.3 | 8.0 | 2.7 | | 3.4 | 0.5 | 2.5 | 4.5 | 1.2 | 16.0 | 4.9 | | 2.4 | | 1.7 | | 2.4 |
| 31 | | 1.8 | | | | 1.6 | | | | 2.3 | | | | 2.2 | | 1.0 | | | | 2.2 | | | | 2.2 |
| total | 67.5 | 34.2 | 90.5 | 49.2 | 136.0 | 76.7 | 188.0 | 85.2 | 188.0 | 113.6 | 196.0 | 82.3 | 163.5 | 94.7 | 82.5 | 48.6 | 333.0 | 117.2 | 157.5 | 119.4 | 90.5 | 52.0 | 137.0 | 70.8 |

付表－6　青野の日降水量と樹芸 2 号沢の日流出量

**JYUGEI 2GOSAWA**　**2016**　**unit: mm/day**　*annual precipitation at Aono:* *2413.0*　**annual runoff:** **1602.7**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 1.7 | 1.0 | 1.4 | | 1.3 | 1.5 | 2.7 | | 3.8 | | 3.2 | | 8.6 | 3.5 | 2.0 | | 5.2 | | 5.5 | 15.5 | 3.1 | 5.5 | 2.0 |
| 2 | | 1.7 | | 1.3 | | 1.3 | 2.5 | 2.6 | | 3.6 | | 3.0 | | 7.0 | | 1.9 | | 4.4 | | 5.0 | | 2.5 | | 1.9 |
| 3 | | 1.7 | | 1.3 | | 1.3 | 3.0 | 2.7 | | 3.4 | | 2.8 | | 5.9 | | 1.9 | 3.5 | 3.8 | 18.5 | 5.3 | | 2.4 | | 1.8 |
| 4 | | 1.7 | | 1.2 | | 1.3 | 26.0 | 4.0 | 26.0 | 4.7 | | 2.8 | | 5.1 | | 1.8 | 2.5 | 3.6 | | 4.6 | | 2.3 | 9.0 | 1.8 |
| 5 | | 1.7 | | 1.2 | | 1.3 | | 2.6 | | 3.6 | 5.5 | 2.7 | | 4.5 | | 1.7 | | 3.3 | 0.5 | 4.0 | 0.5 | 2.3 | | 1.9 |
| 6 | | 1.6 | | 1.2 | 26.5 | 2.5 | | 2.4 | 3.0 | 3.4 | | 2.5 | | 4.1 | | 1.7 | 1.5 | 3.1 | 14.5 | 4.5 | | 2.1 | | 1.8 |
| 7 | | 1.6 | | 1.2 | 66.5 | 10.8 | 46.0 | 5.1 | 1.5 | 3.3 | 0.5 | 2.3 | | 3.7 | | 1.6 | 60.5 | 8.7 | | 3.7 | | 2.1 | | 1.7 |
| 8 | | 1.5 | | 1.2 | | 5.8 | | 5.1 | | 3.1 | | 2.2 | | 3.5 | | 1.6 | 11.0 | 7.5 | 5.5 | 3.7 | 6.5 | 2.1 | | 1.6 |
| 9 | | 1.5 | | 1.2 | 36.5 | 6.4 | | 4.0 | 15.0 | 3.4 | | 2.2 | 91.5 | 13.3 | | 1.6 | | 6.7 | 8.5 | 3.7 | 3.0 | 2.2 | | 1.6 |
| 10 | | 1.5 | | 1.1 | 0.5 | 7.6 | | 3.6 | 45.0 | 4.7 | | 2.1 | | 11.1 | | 1.6 | | 5.5 | | 3.3 | | 1.9 | | 1.6 |
| 11 | | 1.4 | | 1.1 | 1.5 | 6.2 | | 3.3 | 26.0 | 14.7 | | 2.0 | | 8.3 | | 1.5 | 51.5 | 12.2 | | 3.1 | 22.5 | 2.9 | | 1.5 |
| 12 | 1.5 | 1.4 | 3.5 | 1.2 | | 5.0 | | 3.0 | | 12.0 | 5.5 | 2.0 | | 6.7 | | 1.8 | | 10.8 | | 2.9 | | 2.1 | | 1.5 |
| 13 | | 1.4 | 15.5 | 1.6 | | 4.1 | 23.0 | 3.4 | | 9.0 | 30.5 | 3.2 | | 5.7 | | 2.1 | 129.5 | 27.8 | | 2.8 | | 2.0 | 19.5 | 1.8 |
| 14 | | 1.4 | 20.5 | 3.0 | 31.5 | 5.3 | 18.5 | 6.8 | | 7.3 | 1.5 | 2.2 | | 5.0 | | 2.3 | 99.0 | 95.4 | 0.5 | 2.8 | 7.5 | 2.1 | 42.5 | 5.7 |
| 15 | | 1.4 | | 1.6 | 0.5 | 4.8 | | 5.1 | | 6.2 | | 2.0 | | 4.4 | 1.0 | 2.3 | 1.5 | 38.5 | | 2.6 | 5.5 | 2.4 | | 2.6 |
| 16 | | 1.4 | | 1.3 | | 4.3 | | 4.4 | | 5.5 | 5.5 | 2.0 | | 3.9 | | 2.3 | | 19.9 | | 2.6 | | 2.1 | 0.5 | 2.3 |
| 17 | | 1.3 | | 1.3 | | 3.9 | 23.0 | 5.8 | 45.0 | 9.8 | 1.0 | 2.1 | | 3.5 | | 2.0 | 1.0 | 13.1 | 52.5 | 5.7 | | 1.9 | | 2.1 |
| 18 | 7.0 | 1.4 | | 1.3 | 0.5 | 3.6 | | 5.4 | | 8.4 | | 2.1 | | 3.2 | 18.5 | 2.4 | 1.0 | 10.0 | 0.5 | 3.7 | | 1.8 | | 2.0 |
| 19 | | 1.3 | 2.0 | 1.3 | 53.0 | 11.9 | | 5.0 | | 7.3 | 1.0 | 1.9 | | 3.0 | | 1.5 | 2.5 | 8.0 | | 3.1 | 17.5 | 2.4 | | 1.9 |
| 20 | | 1.3 | 50.0 | 3.6 | | 10.7 | | 4.4 | | 6.2 | | 2.0 | | 2.8 | | 1.5 | 63.0 | 13.8 | | 2.9 | | 2.0 | | 1.8 |
| 21 | | 1.3 | | 3.0 | | 7.9 | 40.5 | 5.7 | | 5.6 | 67.5 | 7.2 | | 2.7 | | 1.5 | | 11.6 | | 2.7 | 3.0 | 1.9 | | 1.8 |
| 22 | | 1.3 | | 1.8 | | 6.3 | 18.0 | 12.6 | | 5.1 | 14.5 | 3.4 | | 2.6 | 147.5 | 19.1 | 21.5 | 10.3 | | 2.6 | 8.0 | 2.2 | 13.5 | 2.2 |
| 23 | 0.5 | 1.3 | | 1.6 | | 5.4 | 1.0 | 9.7 | | 4.6 | 34.0 | 9.9 | | 2.4 | 4.5 | 5.4 | 17.0 | 10.9 | | 2.5 | | 1.8 | 24.0 | 4.1 |
| 24 | | 1.2 | | 1.5 | | 4.5 | | 7.7 | | 4.3 | 8.0 | 6.9 | | 2.3 | | 3.4 | 37.0 | 15.5 | | 2.4 | 32.5 | 3.5 | | 2.4 |
| 25 | | 1.2 | | 1.4 | 0.5 | 3.9 | | 6.3 | | 4.0 | 45.0 | 17.3 | | 2.2 | | 2.9 | | 17.2 | 10.0 | 2.5 | | 2.2 | | 2.2 |
| 26 | | 1.2 | | 1.4 | | 3.5 | | 5.5 | 2.0 | 3.8 | | 12.9 | | 2.2 | | 2.8 | 0.5 | 12.9 | | 2.4 | | 1.9 | | 2.2 |
| 27 | | 1.2 | | 1.3 | | 3.3 | 3.5 | 4.9 | 39.0 | 6.0 | 0.5 | 9.3 | 9.5 | 2.3 | 2.0 | 2.7 | | 10.3 | | 2.3 | 11.5 | 2.1 | 19.5 | 3.0 |
| 28 | | 1.2 | | 1.3 | 7.5 | 3.2 | 29.5 | 6.0 | | 3.8 | 59.0 | 15.6 | 2.0 | 2.1 | 0.5 | 2.5 | 0.5 | 8.5 | 33.5 | 3.6 | 4.0 | 2.5 | 4.5 | 2.5 |
| 29 | 48.5 | 2.7 | 13.5 | 1.6 | | 2.9 | | 4.6 | | 3.6 | 1.5 | 14.5 | | 2.1 | | 2.4 | | 7.2 | 0.5 | 3.3 | | 2.0 | | 2.4 |
| 30 | 12.5 | 2.5 | | | | 2.8 | | 4.1 | 7.5 | 3.6 | | 11.0 | | 2.0 | 69.5 | 14.0 | | 6.2 | 9.0 | 2.8 | 0.5 | 1.9 | | 2.3 |
| 31 | | 1.5 | | | | 2.8 | | | | 3.3 | | | | 2.0 | | 7.1 | | | | 2.4 | | | | 2.2 |
| total | 70.0 | 46.5 | 106.0 | 44.5 | 225.0 | 145.9 | 236.0 | 148.5 | 210.0 | 171.1 | 281.0 | 155.3 | 103.0 | 138.2 | 247.0 | 100.9 | 504.5 | 411.9 | 154.0 | 105.0 | 138.0 | 66.7 | 138.5 | 68.2 |

付表－7　青野の日降水量と樹芸 3 号沢の日流出量

**JYUGEI 3GOSAWA** **2016** **unit: mm/day** n/a : *data not available* *annual precipitation at Aono:* *2413.0* **annual runoff:** **n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 1.7 | 1.0 | 1.4 | | 2.2 | 1.5 | 3.9 | | 4.4 | | 3.1 | | 6.7 | 3.5 | 2.2 | | 7.7 | | * | 15.5 | * | 5.5 | * |
| 2 | | 1.6 | | 1.3 | | 2.1 | 2.5 | 3.7 | | 4.1 | | 2.9 | | 5.7 | | 2.0 | | 6.7 | | * | | * | | * |
| 3 | | 1.6 | | 1.3 | | 2.1 | 3.0 | 3.8 | | 3.9 | | 2.9 | | 5.1 | | 3.5 | 3.5 | 6.9 | 18.5 | * | | * | | * |
| 4 | | 1.5 | | 1.2 | | 2.1 | 26.0 | 6.1 | 26.0 | 6.2 | | 2.9 | | 4.3 | | 3.3 | 2.5 | 6.3 | | * | | * | 9.0 | * |
| 5 | | 1.5 | | 1.2 | | 2.1 | | 4.2 | | 4.2 | 5.5 | 4.3 | | 4.0 | | 3.1 | | 5.7 | 0.5 | * | 0.5 | * | | * |
| 6 | | 1.5 | | 1.2 | 26.5 | 3.9 | | 3.8 | 3.0 | 4.1 | | 3.5 | | 3.8 | | 3.0 | 1.5 | 5.6 | 14.5 | * | | * | | * |
| 7 | | 1.4 | | 1.2 | 66.5 | 25.0 | 46.0 | 8.2 | 1.5 | 4.4 | 0.5 | 2.7 | | 3.5 | | 3.1 | 60.5 | 15.2 | | * | | * | | * |
| 8 | | 1.4 | | 1.2 | | 15.4 | | 9.7 | | 5.7 | | 2.6 | | 3.4 | | 2.9 | 11.0 | 14.7 | 5.5 | * | 6.5 | * | | * |
| 9 | | 1.5 | | 1.3 | 36.5 | 8.1 | | 7.0 | 15.0 | 6.0 | | 2.5 | 91.5 | 17.2 | | 2.8 | | 11.4 | 8.5 | * | 3.0 | * | | * |
| 10 | | 1.9 | | 1.2 | 0.5 | 9.4 | | 6.0 | 45.0 | 8.3 | | 2.3 | | 9.6 | | 2.8 | | 8.8 | | * | | * | | * |
| 11 | | 2.1 | | 1.7 | 1.5 | 6.6 | | 5.1 | 26.0 | 22.1 | | 2.2 | | 7.0 | | 2.9 | 51.5 | 19.8 | | * | 22.5 | * | | * |
| 12 | 1.5 | 2.4 | 3.5 | 1.5 | | 5.2 | | 4.5 | | 12.0 | 5.5 | 2.2 | | 5.4 | | 2.8 | | 13.5 | | * | | * | | * |
| 13 | | 2.6 | 15.5 | 1.8 | | 4.9 | 23.0 | 4.9 | | 8.8 | 30.5 | 3.7 | | 4.8 | | 2.9 | 129.5 | 37.5 | | * | | * | 19.5 | * |
| 14 | | 2.6 | 20.5 | 3.3 | 31.5 | 7.1 | 18.5 | 11.2 | | 7.1 | 1.5 | 2.6 | | 4.3 | | 3.0 | 99.0 | n/a | 0.5 | * | 7.5 | * | 42.5 | * |
| 15 | | 3.2 | | 1.5 | 0.5 | 7.1 | | 7.4 | | 6.1 | | 2.4 | | 3.9 | 1.0 | 3.1 | 1.5 | n/a | | * | 5.5 | * | | * |
| 16 | | 2.7 | | 1.3 | | 5.7 | | 6.2 | | 5.1 | 5.5 | 2.6 | | 3.6 | | 3.0 | | n/a | | * | | * | 0.5 | * |
| 17 | | 1.3 | | 1.3 | | 4.3 | 23.0 | 8.6 | 45.0 | 11.9 | 1.0 | 2.8 | | 3.4 | | 2.5 | 1.0 | n/a | 52.5 | * | | * | | * |
| 18 | 7.0 | 1.4 | | 1.3 | 0.5 | 4.0 | | 7.5 | | 9.1 | | 2.1 | | 3.2 | 18.5 | 3.4 | 1.0 | n/a | 0.5 | * | | * | | * |
| 19 | | 1.2 | 2.0 | 1.3 | 53.0 | 16.8 | | 6.4 | | 7.2 | 1.0 | 2.0 | | 2.9 | | 2.1 | 2.5 | n/a | | * | 17.5 | * | | * |
| 20 | | 1.2 | 50.0 | 4.1 | | 10.8 | | 5.4 | | 5.8 | | 1.9 | | 2.8 | | 2.1 | 63.0 | n/a | | * | | * | | * |
| 21 | | 1.2 | | 3.7 | | 7.9 | 40.5 | 6.7 | | 5.2 | 67.5 | 11.3 | | 2.7 | | 1.8 | | n/a | | * | 3.0 | * | | * |
| 22 | | 1.2 | | 2.2 | | 6.7 | 18.0 | 16.8 | | 4.8 | 14.5 | 5.8 | | 2.8 | 147.5 | 43.0 | 21.5 | * | | * | 8.0 | * | 13.5 | * |
| 23 | 0.5 | 1.2 | | 1.9 | | 6.1 | 1.0 | 9.9 | | 4.4 | 34.0 | 14.2 | | 2.6 | 4.5 | 23.1 | 17.0 | * | | * | | * | 24.0 | * |
| 24 | | 1.2 | | 1.8 | | 5.4 | | 7.8 | | 4.1 | 8.0 | 7.4 | | 2.5 | | 19.8 | 37.0 | * | | * | 32.5 | * | | * |
| 25 | | 1.2 | | 2.2 | 0.5 | 4.9 | | 6.2 | | 3.9 | 45.0 | 20.6 | | 2.5 | | 13.3 | | * | 10.0 | * | | * | | * |
| 26 | | 1.2 | | 2.3 | | 4.6 | | 5.4 | 2.0 | 3.7 | | 9.9 | | 2.4 | | 5.6 | 0.5 | * | | * | | * | | * |
| 27 | | 1.2 | | 2.5 | | 4.4 | 3.5 | 5.0 | 39.0 | 6.5 | 0.5 | 6.6 | 9.5 | 2.6 | 2.0 | 5.2 | | * | | * | 11.5 | * | 19.5 | * |
| 28 | | 1.1 | | 2.5 | 7.5 | 4.4 | 29.5 | 7.3 | | 4.1 | 59.0 | 17.4 | 2.0 | 2.4 | 0.5 | 5.1 | 0.5 | * | 33.5 | * | 4.0 | * | 4.5 | * |
| 29 | 48.5 | 3.8 | 13.5 | 2.7 | | 4.1 | | 5.5 | | 3.7 | 1.5 | 12.6 | | 2.2 | | 4.9 | | * | 0.5 | * | | * | | * |
| 30 | 12.5 | 2.8 | | | | 3.9 | | 4.7 | 7.5 | 3.7 | | 8.6 | | 2.0 | 69.5 | 23.4 | | * | 9.0 | * | 0.5 | * | | * |
| 31 | | 1.6 | | | | 3.8 | | | | 3.3 | | | | 2.0 | | 10.3 | | | | * | | | | * |
| total | 70.0 | 54.0 | 106.0 | 53.4 | 225.0 | 201.1 | 236.0 | 198.9 | 210.0 | 193.9 | 281.0 | 168.6 | 103.0 | 131.3 | 247.0 | 212.0 | 504.5 | n/a | 154.0 | * | 138.0 | * | 138.5 | * |

* : *data not shown due to possible unreliability thereof*

付表－8　新田の降水水質

**SHINTA**　　**2016**

| 2016 | Sampling date | Sampling time | Precipitation (mm) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/19 | 10:30 | 272 | 4.7 | 14 | 1.49 | 0.10 | 0.19 | 0.11 | 0.00 | 2.30 | 0.77 | 0.95 |
| 2 | | | | | | | | | | | | | |
| 3 | 2016/3/16 | 13:40 | 173 | 4.1 | 23 | 1.93 | 0.11 | 0.28 | 0.24 | 0.00 | 2.84 | 1.13 | 1.94 |
| 4 | 2016/4/13 | 15:10 | 180 | 4.6 | 14 | 0.99 | 0.24 | 0.17 | 0.21 | 0.00 | 2.16 | 0.71 | 1.33 |
| 5 | 2016/5/10 | 14:44 | 170 | 6.1 | 17 | 1.31 | 0.28 | 0.26 | 0.19 | 0.13 | 2.27 | 0.81 | 1.09 |
| 6 | | | | | | | | | | | | | |
| 7 | 2016/7/11 | 11:50 | 316 | 4.8 | 16 | 0.20 | 0.29 | 0.10 | 0.23 | 0.36 | 0.45 | 1.00 | 0.83 |
| 8 | 2016/8/29 | 14:00 | 314 | 5.4 | 23 | 2.17 | 0.30 | 0.39 | 0.21 | 0.14 | 3.94 | 1.20 | 1.32 |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | 2016/11/25 | 16:00 | 370 | 6.0 | 10 | 0.51 | 0.08 | 0.12 | 0.15 | 0.08 | 0.97 | 1.22 | 1.02 |
| 12 | 2016/12/14 | 16:00 | 78 | 6.0 | 13 | 0.75 | 0.17 | 0.20 | 0.47 | 0.11 | 1.37 | 1.08 | 0.95 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－9　東郷ダムの降水水質

**TOGO DAM**　　**2016**

| 2016 | Sampling date | Sampling time | Sampler type | Precipitation (mm) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/20 | 11:00 | Winter type | 88.4 | 5.31 | 28 | 0.82 | 0.09 | 0.24 | 0.20 | 0.41 | 2.77 | 1.17 | 1.55 |
| 2 | 2016/2/17 | 13:45 | Winter type | 54.5 | 7.60 | 14 | 0.46 | 0.07 | 0.14 | 0.44 | 0.26 | 1.45 | 0.70 | 0.88 |
| 3 | 2016/3/16 | 11:30 | Winter type | 77.8 | 7.86 | 20 | 0.71 | 0.23 | 0.25 | 0.71 | 0.30 | 2.42 | 0.99 | 1.56 |
| 4 | 2016/4/20 | 13:15 | Winter type | | 7.91 | 19 | 0.31 | 0.14 | 0.15 | 0.74 | 0.76 | 1.08 | 1.54 | 2.05 |
| 5 | 2016/5/18 | 15:20 | Winter type | 68.3 | 5.48 | 11 | 0.23 | 0.18 | 0.12 | 0.55 | 0.41 | 0.83 | 0.74 | 0.93 |
| 6 | 2016/6/22 | 14:25 | General | 168.1 | 8.04 | 10 | 0.06 | 0.11 | 0.05 | 0.23 | 0.35 | 0.20 | 0.55 | 0.47 |
| 7 | 2016/7/20 | 15:00 | General | 97.0 | 8.49 | 0 | 0.05 | 0.50 | 0.05 | 0.31 | 0.11 | 0.47 | 0.35 | 0.17 |
| 8 | 2016/8/19 | 13:10 | General | 238.9 | 7.88 | 4 | 0.04 | 0.21 | 0.03 | 0.20 | 0.18 | 0.18 | 0.21 | 0.13 |
| 9 | 2016/9/16 | 13:25 | General | 461.1 | 8.01 | 4 | 0.05 | 0.38 | 0.05 | 0.17 | 0.04 | 0.40 | 0.15 | 0.02 |
| 10 | 2016/10/25 | 11:45 | General | 132.7 | 7.89 | 26 | 1.23 | 0.53 | 0.31 | 0.44 | 0.62 | 5.30 | 0.74 | 1.50 |
| 11 | 2016/11/16 | 13:50 | General | 119.4 | 6.82 | 30 | 0.86 | 1.87 | 0.27 | 0.57 | 0.44 | 5.24 | 1.62 | 2.61 |
| 12 | 2016/12/21 | 11:30 | Winter type | 104.5 | 6.20 | 32 | 1.18 | 0.43 | 0.36 | 0.83 | 0.63 | 5.18 | 1.79 | 2.88 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－10　ワサビ沢の降水水質

**WASABIZAWA** **2016**

| 2016 | Sampling date | Sampling time | Sampler type | Precipitation (mm) | pH § | EC § (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/27 | 17:00 | Winter type | 43.6 | 7.47 | | 0.35 | 0.42 | 0.03 | 0.33 | 0.39 | 0.92 | 0.32 | 0.15 |
| 2 | 2016/2/25 | 12:30 | Winter type | 141.8 | 6.07 | 5 | 0.08 | 0.08 | 0.03 | 0.29 | 0.18 | 0.24 | 0.34 | 0.24 |
| 3 | 2016/3/15 | 11:15 | Winter type | 86.4 | 6.87 | 17 | 0.48 | 0.46 | 0.06 | 0.64 | 1.47 | 1.22 | 1.00 | 1.22 |
| 4 | 2016/4/18 | 14:05 | Winter type | 105.7 | 6.86 | 9 | 0.24 | 0.25 | 0.08 | 0.40 | 0.39 | 0.60 | 0.87 | 0.56 |
| 5 | 2016/5/18 | 13:03 | Winter type | 174.8 | 6.79 | 5 | 0.13 | 0.28 | 0.02 | 0.24 | 0.18 | 0.46 | 0.41 | 0.26 |
| 6 | 2016/6/22 | 13:55 | General | 98.1 | 6.27 | 4 | 0.03 | 0.11 | 0.01 | 0.13 | 0.04 | 0.18 | | 0.29 |
| 7 | 2016/7/15 | 13:55 | General | 91.6 | 6.39 | 5 | 0.06 | 0.05 | | 0.12 | 0.14 | 0.19 | 0.18 | 0.33 |
| 8 | 2016/8/16 | 12:20 | General | 74.1 | 6.13 | 3 | 0.07 | 0.04 | 0.01 | 0.16 | 0.08 | 0.27 | | 0.19 |
| 9 | 2016/9/21 | 13:00 | General | 759.3 | 6.61 | 3 | 0.02 | 0.02 | | | 0.01 | 0.11 | 0.11 | 0.02 |
| 10 | 2016/10/18 | 13:36 | General | 96.8 | 6.50 | 4 | 0.06 | 0.03 | 0.00 | 0.04 | 0.09 | 0.05 | 0.38 | 0.26 |
| 11 | 2016/11/15 | 13:45 | General | 88.6 | 6.66 | 4 | 0.09 | 0.44 | 0.02 | 0.10 | 0.01 | 0.10 | 0.46 | 0.23 |
| 12 | 2016/12/21 | 12:20 | Winter type | 118.6 | 6.56 | 5 | 0.11 | 0.28 | 0.05 | 0.17 | 0.07 | 0.13 | 0.32 | 0.26 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

§The pH and EC were analyzed in the laboratory of Institute for Water Science,  Suntory Global Innovation Center Limited

付表－11　加納の降水水質

**KANOU** **2016**

| 2016 | Sampling period | Number of samples | Precipitation (mm) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2015/12/16～2016/1/18 | 4 | 24.3 | | | 2.38 | 0.44 | 0.65 | 0.94 | 0.49 | 6.02 | 1.98 | 4.71 |
| 2 | 2016/1/18～2016/2/15 | 5 | 90.4 | | | 1.83 | 0.77 | 0.53 | 0.87 | 0.52 | 5.74 | 1.20 | 2.66 |
| 3 | 2016/2/15～2016/3/15 | 8 | 240.0 | | | 0.85 | 0.32 | 0.28 | 0.76 | 0.43 | 2.64 | 0.78 | 1.68 |
| 4 | 2016/3/15～2016/4/18 | 10 | 168.0 | | | 1.37 | 0.26 | 0.37 | 0.47 | 0.31 | 4.67 | 0.91 | 1.95 |
| 5 | 2016/4/18～2016/5/18 | | | | | | | | | | | | |
| 6 | 2016/5/18～2016/6/22 | | | | | | | | | | | | |
| 7 | 2016/6/22～2016/7/11 | 5 | 207.4 | | | 0.26 | 0.09 | 0.13 | 0.27 | 0.13 | 0.97 | 0.37 | 0.57 |
| 8 | 2016/7/11～2016/7/28 | 3 | 15.4 | | | 0.72 | 1.01 | 0.27 | 0.74 | 1.53 | 2.56 | 2.78 | 3.38 |
| 9 | 2016/728～2016/9/21 | 17 | 564.9 | | | 0.26 | 0.11 | 0.10 | 0.20 | 0.10 | 0.83 | 0.33 | 0.49 |
| 10 | 2016/9/21～2016/10/18 | 7 | 143.0 | | | 0.64 | 0.26 | 0.17 | 0.25 | 0.14 | 2.08 | 0.37 | 0.64 |
| 11 | 2016/10/18～2016/11/15 | 7 | 122.7 | | | 0.63 | 0.17 | 0.17 | 0.26 | 0.15 | 2.16 | 0.78 | 1.13 |
| 12 | 2016/11/15～2016/12/15 | 9 | 154.0 | | | 0.46 | 0.11 | 0.14 | 0.37 | 0.13 | 1.53 | 0.42 | 0.71 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－12　袋山沢 A の渓流水質

**FUKUROYAMASAWA A**　　**2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/19 | 12:00 | | | 6.9 | 99 | 7.06 | 0.70 | 2.34 | 7.62 | 0.00 | 9.38 | 0.00 | 7.82 |
| 2 | | | | | | | | | | | | | | |
| 3 | 2016/3/16 | 13:13 | | | 6.9 | 104 | 8.42 | 0.69 | 2.83 | 8.89 | 0.00 | 11.67 | 0.56 | 7.23 |
| 4 | 2016/4/13 | 11:00 | | | 6.4 | 110 | 8.32 | 0.76 | 3.65 | 10.99 | 0.00 | 14.65 | 0.00 | 10.17 |
| 5 | 2016/5/10 | 12:20 | | | 7.0 | 109 | 6.44 | 0.71 | 2.72 | 8.26 | 0.00 | 9.46 | 0.00 | 6.51 |
| 6 | | | | | | | | | | | | | | |
| 7 | 2016/7/11 | 15:37 | | | 7.1 | 130 | 7.67 | 0.87 | 3.38 | 10.28 | 0.00 | 9.72 | 0.93 | 7.43 |
| 8 | 2016/8/29 | 13:40 | | | 7.1 | 138 | 8.01 | 1.00 | 3.62 | 11.16 | 0.00 | 9.91 | 1.12 | 7.90 |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | 2016/11/25 | 15:30 | | | 7.3 | 122 | 7.46 | 0.73 | 3.13 | 9.43 | 0.00 | 10.56 | 0.00 | 7.18 |
| 12 | 2016/12/14 | 15:00 | | | 7.2 | 106 | 6.40 | 0.74 | 2.58 | 7.81 | 0.00 | 9.27 | 0.87 | 6.07 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－13　袋山沢 B の渓流水質

**FUKUROYAMASAWA B**　　**2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/19 | 12:00 | | | 7.1 | 77 | 5.48 | 0.49 | 1.80 | 5.86 | 0.00 | 4.76 | 0.79 | 4.52 |
| 2 | | | | | | | | | | | | | | |
| 3 | 2016/3/16 | 13:16 | | | 6.2 | 70 | 5.54 | 0.55 | 1.98 | 6.13 | 0.00 | 5.21 | 0.71 | 4.67 |
| 4 | 2016/4/13 | 11:00 | | | 6.1 | 69 | 5.34 | 0.65 | 1.57 | 8.18 | 0.00 | 6.55 | 0.00 | 6.11 |
| 5 | 2016/5/10 | 12:20 | | | 7.6 | 82 | 4.72 | 0.58 | 2.04 | 6.36 | 0.00 | 4.40 | 1.10 | 3.97 |
| 6 | | | | | | | | | | | | | | |
| 7 | 2016/7/11 | 15:37 | | | 7.4 | 84 | 5.08 | 0.59 | 2.19 | 6.67 | 0.00 | 4.37 | 0.95 | 4.16 |
| 8 | 2016/8/29 | 13:45 | | | 7.4 | 91 | 5.37 | 0.66 | 2.41 | 7.32 | 0.00 | 4.80 | 1.18 | 4.47 |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | 2016/11/25 | 15:30 | | | 7.2 | 82 | 4.86 | 0.54 | 2.06 | 6.24 | 0.00 | 4.81 | 1.01 | 4.19 |
| 12 | 2016/12/14 | 15:00 | | | 7.1 | 78 | 4.65 | 0.60 | 2.00 | 6.05 | 0.00 | 4.51 | 1.17 | 3.75 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－14　丸山沢の渓流水質

**MARUYAMAZAWA** **2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | |
| 2 | 2016/2/17 | 11:36 | | 1.6 | 8.2 | 47 | 1.83 | 0.87 | 1.05 | 3.51 | 0.04 | 2.46 | 1.34 | 2.17 |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | 2016/5/18 | 12:55 | 218 | 12.9 | 7.6 | 38 | 1.71 | 0.76 | 0.83 | 2.77 | 0.04 | 2.16 | 0.50 | 2.18 |
| 6 | 2016/6/22 | 15:10 | 256 | 10.5 | 7.3 | 36 | 1.71 | 0.72 | 0.82 | 2.70 | 0.02 | 1.84 | 0.53 | 2.09 |
| 7 | 2016/7/20 | 12:55 | 144 | 11.8 | 7.8 | 44 | 1.93 | 0.90 | 1.05 | 3.55 | 0.04 | 1.98 | 0.58 | 1.94 |
| 8 | 2016/8/19 | 11:48 | 396 | 11.4 | 7.6 | | 1.85 | 0.91 | 0.80 | 2.77 | 0.04 | 2.07 | 0.58 | 1.94 |
| 9 | 2016/9/16 | 11:08 | 244 | 11.5 | 7.7 | 40 | 1.89 | 0.88 | 0.90 | 2.92 | 0.03 | 2.19 | 0.55 | 2.08 |
| 10 | 2016/10/25 | 12:45 | 145 | 6.3 | 7.8 | 44 | 1.91 | 1.11 | 0.99 | 3.17 | 0.06 | 3.09 | 0.65 | 2.52 |
| 11 | 2016/11/16 | 14:45 | 289 | 3.5 | 7.9 | 41 | 1.74 | 0.86 | 0.94 | 3.17 | 0.04 | 3.18 | 1.41 | 2.69 |
| 12 | | | | | | | | | | | | | | |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－15　バケモノ沢の渓流水質

**BAKEMONOSAWA** **2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH § | EC § (μS/cm) | Na (mg/L) | K (mg/L) | Mg (mg/L) | Ca (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/27 | 13:59 | 9 | 5.8 | 7.25 | 46 | 2.93 | 0.19 | 0.14 | 4.76 | | 0.46 | 0.18 | 4.42 |
| 2 | 2016/2/25 | 10:47 | 28 | 7.8 | 7.43 | 46 | 2.79 | 0.20 | 0.26 | 5.48 | | 0.55 | 1.27 | 5.66 |
| 3 | 2016/3/15 | 14:23 | 13 | 6.4 | 7.36 | 49 | 2.86 | 0.19 | 0.27 | 5.84 | | 0.51 | 0.23 | 5.12 |
| 4 | 2016/4/18 | 14:29 | 18 | 9.2 | 7.25 | 53 | 3.07 | 0.33 | 0.83 | 6.62 | | 0.51 | 0.37 | 5.00 |
| 5 | 2016/5/18 | 13:57 | 26 | 9.4 | 7.42 | 53 | 3.07 | 0.41 | 0.82 | 6.74 | | 0.49 | 0.78 | 4.47 |
| 6 | 2016/6/22 | 14:00 | 9 | 11.9 | 7.36 | 55 | 2.98 | 0.21 | 0.84 | 7.23 | | 0.51 | 0.28 | 5.56 |
| 7 | 2016/7/15 | 13:55 | 12 | 13.6 | 7.25 | 58 | 3.02 | 0.27 | 0.88 | 7.41 | | 0.49 | 1.22 | 5.61 |
| 8 | 2016/8/16 | 15:00 | 9 | 14.2 | 7.38 | 59 | 3.15 | 0.24 | 0.93 | 7.19 | | 0.50 | 0.33 | 6.01 |
| 9 | 2016/9/21 | 14:38 | 229 | 11.5 | 7.12 | 39 | 2.41 | 0.37 | 0.63 | 4.89 | | 0.53 | 1.90 | 3.56 |
| 10 | 2016/10/18 | 12:00 | 29 | 11.4 | 7.21 | 49 | 2.90 | 0.29 | 0.76 | 6.15 | | 0.53 | 0.34 | 4.99 |
| 11 | 2016/11/15 | 14:11 | | 9.5 | 7.37 | 51 | 3.01 | 0.22 | 0.79 | 6.18 | | 0.61 | 0.47 | 6.04 |
| 12 | 2016/12/21 | 12:09 | 10 | 5.5 | 7.32 | 48 | 2.90 | 0.39 | 0.74 | 5.64 | | 0.57 | 0.15 | 5.74 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

§The pH and EC were analyzed in the laboratory of Institute for Water Science, Suntory Global Innovation Center Limited

付表－16　白坂本谷の渓流水質

**SHIRASAKA HONTANI**　　**2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH § | EC § (μS/cm) | Na (mg/L) | K (mg/L) | Mg (mg/L) | Ca (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/19 | 13:45 | 95 | 5.4 | 7.13 | 48 | 4.91 | 0.74 | 0.51 | 3.28 | | 2.77 | 0.87 | 3.91 |
| 2 | 2016/2/16 | 9:32 | 169 | 5.2 | 7.19 | 47 | 4.80 | 0.78 | 0.25 | 3.04 | | 2.63 | 1.40 | 3.58 |
| 3 | 2016/3/15 | 13:39 | 141 | 9.2 | 7.40 | 46 | 5.07 | 0.92 | 0.25 | 3.36 | | 2.63 | 0.99 | 4.27 |
| 4 | 2016/4/19 | 10:01 | 160 | 10.7 | 7.28 | 46 | 5.05 | 1.08 | 0.56 | 4.00 | | 2.57 | 0.93 | 4.25 |
| 5 | 2016/5/19 | 9:25 | 228 | 13.9 | 7.33 | 43 | 4.66 | 1.10 | 0.54 | 3.82 | | 2.49 | 1.00 | 3.62 |
| 6 | 2016/6/22 | 10:19 | 156 | 18.0 | 6.92 | 56 | 5.06 | 1.03 | 0.57 | 4.03 | | 2.69 | 0.75 | 4.22 |
| 7 | 2016/7/19 | 10:10 | 161 | 20.0 | 7.21 | 48 | 4.89 | 1.06 | 0.58 | 3.88 | | 2.46 | 0.75 | 3.61 |
| 8 | 2016/8/19 | 14:02 | 97 | 23.5 | 7.23 | 48 | 5.27 | 1.08 | 0.60 | 4.06 | | 2.65 | 0.55 | 3.42 |
| 9 | 2016/9/20 | 10:15 | 401 | 20.2 | 6.80 | 43 | 4.50 | 1.15 | 0.59 | 3.79 | | 1.91 | 3.28 | 3.18 |
| 10 | 2016/10/18 | 11:31 | 221 | 18.1 | 7.20 | 45 | 4.72 | 1.10 | 0.56 | 3.73 | | 2.34 | 1.07 | 3.72 |
| 11 | 2016/11/16 | 9:51 | 127 | 10.4 | 7.28 | 46 | 4.94 | 1.01 | 0.59 | 3.95 | | 2.67 | 0.86 | 4.36 |
| 12 | 2016/12/20 | 14:09 | 115 | 8.8 | 6.98 | 45 | 4.88 | 0.86 | 0.56 | 3.93 | | 2.58 | 0.85 | 3.97 |

Note: blank cell is no data (water was not sampled or not measured /analysed)

付表－17　樹芸 2 号沢の渓流水質

**JYUGEI 2GOSAWA**　　**2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/20 | 14:05 | 61 | 8.1 | 7.23 | 161 | 5.64 | 0.56 | 4.97 | 10.19 | 0.05 | 10.71 | 0.03 | 42.27 |
| 2 | 2016/2/17 | 14:05 | 60 | 8.6 | 7.26 | 160 | 5.69 | 0.53 | 5.02 | 10.53 | 0.03 | 10.75 | 0.07 | 42.77 |
| 3 | 2016/3/16 | 14:25 | 90 | 11.1 | 7.13 | 131 | 5.04 | 0.51 | 3.85 | 7.72 | 0.04 | 10.87 | 0.37 | 30.13 |
| 4 | 2016/4/20 | 14:15 | 93 | 13.8 | 7.18 | 129 | 5.28 | 0.50 | 3.99 | 7.85 | 0.04 | 11.56 | 0.05 | 29.52 |
| 5 | 2016/5/19 | 14:00 | 110 | 15.6 | 7.24 | 122 | 5.02 | 0.49 | 3.57 | 6.86 | 0.03 | 11.23 | 0.44 | 25.69 |
| 6 | 2016/6/22 | 13:35 | 80 | 17.7 | 7.15 | 137 | 5.40 | 0.62 | 4.45 | 8.96 | 0.03 | 10.27 | 0.68 | 35.85 |
| 7 | 2016/7/20 | 14:05 | 80 | 19.4 | 7.15 | 135 | 5.51 | 0.56 | 4.34 | 8.24 | 0.05 | 11.08 | 0.11 | 34.50 |
| 8 | 2016/8/17 | 14:05 | 59 | 21.1 | 7.19 | 149 | 5.96 | 0.68 | 4.97 | 10.07 | 0.06 | 10.71 | 0.35 | 41.37 |
| 9 | 2016/9/21 | 13:30 | 130 | 17.8 | 7.03 | 110 | 4.88 | 0.51 | 3.31 | 5.76 | 0.00 | 10.84 | 0.60 | 23.07 |
| 10 | 2016/10/19 | 14:00 | 78 | 17.8 | 7.13 | 138 | 5.50 | 0.57 | 4.42 | 8.47 | 0.02 | 10.60 | 0.53 | 35.44 |
| 11 | 2016/11/16 | 14:00 | 69 | 14.7 | 7.11 | 144 | 5.56 | 0.63 | 4.73 | 9.49 | 0.03 | 10.48 | 0.39 | 39.26 |
| 12 | 2016/12/21 | 13:45 | 67 | 11.8 | 7.22 | 145 | 5.43 | 0.52 | 4.72 | 9.48 | 0.00 | 10.33 | 0.27 | 39.27 |

付表－18　樹芸 3 号沢の渓流水質

**JYUGEI 3GOSAWA** **2016**

| 2016 | Sampling date | Sampling time | Water height (mm) | Water temp. (℃) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2016/1/20 | 14:50 | 25 | 5.8 | 4.63 | 167 | 5.64 | 0.87 | 6.84 | 6.17 | 0.04 | 12.22 | 0.00 | 55.25 |
| 2 | 2016/2/17 | 14:55 | 23 | 6.8 | 4.67 | 164 | 5.49 | 1.11 | 6.74 | 6.49 | 0.08 | 12.12 | 0.00 | 53.90 |
| 3 | 2016/3/16 | 15:10 | 44 | 10.1 | 4.80 | 126 | 4.78 | 0.68 | 4.69 | 4.32 | 0.02 | 11.11 | 0.00 | 36.33 |
| 4 | 2016/4/20 | 14:55 | 43 | 13.2 | 4.76 | 123 | 4.97 | 0.58 | 4.66 | 4.07 | 0.05 | 11.21 | 0.00 | 35.30 |
| 5 | 2016/5/19 | 14:45 | 50 | 15.6 | 4.88 | 112 | 4.80 | 0.57 | 4.15 | 3.57 | 0.04 | 11.06 | 0.00 | 30.92 |
| 6 | 2016/6/22 | 14:20 | 38 | 18.7 | 4.87 | 125 | 4.75 | 0.86 | 4.62 | 4.78 | 0.00 | 10.78 | 0.00 | 36.53 |
| 7 | 2016/7/20 | 14:45 | 33 | 21.5 | 4.80 | 130 | 5.31 | 0.72 | 5.11 | 4.85 | 0.04 | 11.79 | 0.00 | 39.72 |
| 8 | 2016/8/17 | 14:50 | 22 | 23.6 | 4.61 | 138 | 5.62 | 0.93 | 5.16 | 4.89 | 0.12 | 12.43 | 0.00 | 42.66 |
| 9 | 2016/9/21 | 14:00 | 65 | 18.7 | 5.19 | 95 | 4.46 | 0.39 | 3.39 | 2.98 | 0.00 | 10.48 | 0.00 | 24.90 |
| 10 | 2016/10/19 | 14:40 | 36 | 19.0 | 4.63 | 130 | 5.14 | 0.68 | 5.31 | 4.91 | 0.05 | 11.23 | 0.00 | 41.39 |
| 11 | 2016/11/16 | 14:30 | 29 | 14.2 | 4.51 | 141 | 5.36 | 0.68 | 6.16 | 5.48 | 0.06 | 11.56 | 0.00 | 48.69 |
| 12 | 2016/12/21 | 14:30 | 30 | 11.6 | 4.55 | 146 | 5.22 | 0.61 | 6.20 | 5.60 | 0.03 | 11.32 | 0.00 | 49.14 |

付表－19　新田の日降水量と袋山沢 A の日流出量（修正版）

**FUKUROYAMASAWA A　2013　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2157.4*　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 2.0 | 15.2 | 0.1 | 13.7 | 0.7 | 0.5 | 0.0 | 9.7 | 0.5 | | 0.1 | | 0.7 | | 0.0 | | 0.0 | 13.4 | 0.0 | | 0.3 | | 0.0 |
| 2 | | 1.1 | 21.1 | 6.5 | | 1.6 | 51.1 | 5.9 | 5.9 | 0.4 | | 0.0 | | 0.3 | | 0.0 | | 0.0 | 61.8 | 15.3 | 3.9 | 0.4 | | 0.0 |
| 3 | | 0.6 | | 1.7 | | 0.5 | 50.9 | 31.8 | | 0.1 | | 0.0 | | 0.3 | | 0.0 | 0.5 | 0.0 | | 0.8 | | 0.6 | | 0.0 |
| 4 | | 0.4 | 1.1 | 1.0 | | 0.2 | | 3.7 | | 0.0 | | 0.0 | 15.8 | 0.7 | | 0.0 | 27.7 | 0.6 | 2.1 | 0.1 | 21.6 | 2.6 | | 0.0 |
| 5 | | 0.3 | | 0.5 | | 0.8 | | 1.2 | | 0.0 | | 0.0 | 15.8 | 2.6 | | 0.0 | 22.4 | 1.3 | 20.9 | 3.2 | | 1.4 | | 0.0 |
| 6 | | 0.2 | 24.4 | 4.4 | | 0.8 | 81.3 | 35.9 | | 0.0 | 3.2 | 0.0 | | 0.6 | 1.6 | 0.0 | | 0.1 | 0.5 | 1.8 | | 0.9 | | 0.0 |
| 7 | | 0.2 | | 3.7 | | 0.6 | 33.0 | 49.3 | | 0.0 | 1.1 | 0.0 | | 0.4 | | 0.0 | | 0.0 | | 0.5 | 16.7 | 3.2 | | 0.0 |
| 8 | | 0.1 | | 1.8 | | 0.5 | | 2.9 | | 0.0 | 0.5 | 0.0 | | 0.2 | | 0.0 | 3.7 | 0.0 | | 0.1 | | 1.7 | | 0.0 |
| 9 | | 0.1 | | 1.0 | | 0.2 | | 1.3 | | 0.0 | | 0.0 | | 0.2 | | 0.0 | | 0.0 | | 0.0 | 2.5 | 1.0 | | 0.0 |
| 10 | | 0.1 | | 0.8 | | 0.2 | | 0.8 | | 0.0 | | 0.0 | | 0.2 | | 0.0 | 1.6 | 0.0 | | 0.0 | 24.0 | 5.0 | 25.3 | 0.9 |
| 11 | | 0.0 | | 0.5 | | 0.1 | | 0.5 | 56.4 | 4.3 | 6.8 | 0.0 | | 0.2 | | 0.0 | 5.9 | 0.0 | 0.5 | 0.0 | 1.9 | 2.8 | | 0.1 |
| 12 | | 0.0 | 2.2 | 0.4 | | 0.0 | | 0.3 | 4.7 | 6.2 | 41.5 | 1.4 | | 0.2 | | 0.0 | 0.5 | 0.0 | | 0.0 | | 0.8 | | 0.0 |
| 13 | | 0.0 | 14.6 | 1.5 | 2.8 | 0.2 | | 0.1 | | 0.6 | 50.5 | 19.0 | | 0.1 | | 0.0 | | 0.0 | | 0.0 | | 0.4 | | 0.0 |
| 14 | 46.0 | 6.9 | | 0.5 | 18.2 | 0.6 | | 0.2 | | 0.2 | 6.8 | 6.0 | | 0.1 | | 0.0 | | 0.0 | | 0.0 | 1.3 | 0.2 | | 0.0 |
| 15 | 17.5 | 6.9 | 10.0 | 0.6 | | 0.1 | | 0.3 | | 0.1 | | 1.7 | | 0.0 | | 0.0 | 32.5 | 1.2 | 142.3 | 44.7 | 1.3 | 0.2 | | 0.0 |
| 16 | 5.0 | 2.2 | | 0.5 | | 0.3 | | 0.2 | 12.1 | 0.1 | 46.2 | 21.9 | | 0.0 | | 0.0 | 11.2 | 0.4 | 200.4 | n/a | | 0.2 | | 0.0 |
| 17 | 1.0 | 1.3 | | 0.2 | | 0.1 | | 0.1 | 0.5 | 0.3 | | 3.5 | | 0.0 | | 0.0 | | 0.0 | | n/a | 1.9 | 0.1 | | 0.0 |
| 18 | | 0.8 | 21.0 | 2.8 | 3.1 | 0.1 | | 0.2 | | 0.1 | | 1.3 | 4.8 | 0.0 | | 0.0 | | 0.0 | | n/a | | 0.1 | 13.2 | 0.0 |
| 19 | | 0.5 | 7.4 | 3.3 | 10.8 | 0.9 | | 0.2 | 1.6 | 0.0 | 4.6 | 0.8 | | 0.0 | | 0.0 | | 0.0 | 2.1 | n/a | | 0.1 | 23.8 | 0.6 |
| 20 | | 0.3 | 15.2 | 2.3 | 5.1 | 0.3 | 10.2 | 0.2 | 36.2 | 3.6 | 34.6 | 7.1 | | 0.0 | | 0.0 | | 0.0 | 92.3 | n/a | | 0.0 | 11.6 | 3.3 |
| 21 | | 0.2 | 0.5 | 1.7 | | 0.3 | 25.4 | 2.0 | 0.5 | 3.3 | 12.9 | 5.6 | | 0.0 | | 0.0 | | 0.0 | 5.2 | n/a | | 0.0 | | 0.3 |
| 22 | 9.0 | 0.6 | | 1.0 | 1.5 | 0.1 | | 0.3 | | 0.6 | 3.1 | 5.8 | | 0.0 | | 0.0 | | 0.0 | 0.5 | n/a | | 0.0 | | 0.1 |
| 23 | 2.5 | 0.4 | | 0.6 | | 0.0 | | 0.1 | | 0.3 | | 2.0 | 31.9 | 0.9 | | 0.0 | 19.9 | 0.2 | 0.0 | n/a | | 0.0 | | 0.0 |
| 24 | 4.0 | 0.6 | | 0.4 | | 0.0 | 40.5 | 1.8 | | 0.1 | 1.0 | 1.1 | 0.5 | 0.1 | 1.1 | 0.0 | 23.1 | 1.6 | 2.6 | n/a | | 0.0 | | 0.0 |
| 25 | 0.5 | 0.5 | | 0.2 | 7.2 | 0.2 | 8.1 | 12.8 | | 0.1 | | 0.7 | | 0.1 | 22.2 | 0.3 | 33.8 | 7.3 | 27.1 | n/a | 3.5 | 0.0 | | 0.0 |
| 26 | | 0.4 | | 0.2 | | 0.1 | | 1.2 | | 0.1 | 61.5 | 17.8 | | 0.0 | | 0.3 | 0.5 | 0.5 | 51.6 | n/a | 8.8 | 0.0 | 1.0 | 0.0 |
| 27 | | 0.3 | 15.2 | 1.0 | 6.7 | 0.1 | | 0.5 | | 0.0 | 0.5 | 10.8 | | 0.0 | 24.4 | 2.0 | | 0.1 | 1.6 | n/a | | 0.0 | 8.3 | 0.0 |
| 28 | 2.7 | 0.3 | | 0.4 | | 0.1 | | 0.2 | | 0.0 | | 2.3 | | 0.0 | | 0.1 | | 0.0 | | n/a | 1.8 | 0.0 | | 0.0 |
| 29 | | 0.3 | | | | 0.0 | | 0.2 | 2.3 | 0.0 | 2.1 | 1.6 | 3.2 | 0.0 | | 0.0 | | 0.0 | 4.4 | n/a | | 0.0 | | 0.0 |
| 30 | | 0.2 | | | | 0.0 | 9.7 | 0.3 | 20.4 | 0.4 | | 1.3 | | 0.0 | | 0.0 | 0.5 | 0.0 | 0.5 | 2.6 | | 0.0 | | 0.0 |
| 31 | | 0.1 | | | 3.6 | 0.0 | | | 3.4 | 0.3 | | | | 0.0 | | 0.0 | | | | 0.5 | | | | 0.0 |
| total | 88.2 | 27.9 | 147.9 | 39.6 | 72.7 | 9.7 | 310.7 | 154.5 | 153.7 | 21.7 | 276.9 | 111.8 | 72.0 | 7.9 | 49.3 | 2.7 | 183.8 | 13.3 | 629.8 | n/a | 89.2 | 22.0 | 83.2 | 5.3 |

∗ Modifications are shown by shaded figures.

付表－20　新田の日降水量と袋山沢 B の日流出量（修正版）

**FUKUROYAMASAWA B　2013　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2157.4*　**annual runoff: 918.0**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 1.9 | 15.2 | 0.5 | 13.7 | 1.1 | 0.5 | 0.3 | 9.7 | 1.0 | | 0.3 | | 0.7 | | 0.1 | | 0.0 | 13.4 | 0.3 | | 0.8 | | 0.2 |
| 2 | | 1.1 | 21.1 | 8.3 | | 2.3 | 51.1 | 8.8 | 5.9 | 0.9 | | 0.3 | | 0.5 | | 0.1 | | 0.0 | 61.8 | 20.4 | 3.9 | 0.7 | | 0.2 |
| 3 | | 0.7 | | 2.7 | | 1.1 | 50.9 | 41.6 | | 0.6 | | 0.2 | | 0.4 | | 0.1 | 0.5 | 0.0 | | 2.7 | | 0.7 | | 0.1 |
| 4 | | 0.6 | 1.1 | 1.3 | | 0.7 | | 6.4 | | 0.4 | | 0.2 | 15.8 | 0.9 | | 0.1 | 27.7 | 0.4 | 2.1 | 0.8 | 21.6 | 3.3 | | 0.1 |
| 5 | | 0.5 | | 0.8 | | 1.0 | | 2.2 | | 0.3 | | 0.1 | 15.8 | 3.3 | | 0.0 | 22.4 | 1.7 | 20.9 | 2.7 | | 1.9 | | 0.1 |
| 6 | | 0.4 | 24.4 | 4.0 | | 0.9 | 81.3 | 29.4 | | 0.4 | 3.2 | 0.2 | | 1.2 | 1.6 | 0.0 | | 0.3 | 0.5 | 2.0 | | 1.2 | | 0.1 |
| 7 | | 0.4 | | 2.7 | | 0.8 | 33.0 | 43.4 | | 0.4 | 1.1 | 0.2 | | 0.7 | | 0.0 | | 0.1 | | 1.1 | 16.7 | 3.6 | | 0.1 |
| 8 | | 0.3 | | 1.4 | | 0.8 | | 3.4 | | 0.4 | 0.5 | 0.3 | | 0.5 | | 0.0 | 3.7 | 0.1 | | 0.7 | | 2.5 | | 0.1 |
| 9 | | 0.3 | | 0.9 | | 0.6 | | 1.8 | | 0.3 | | 0.3 | | 0.4 | | 0.0 | | 0.0 | | 0.4 | 2.5 | 1.5 | | 0.1 |
| 10 | | 0.3 | | 0.7 | | 0.5 | | 1.2 | | 0.2 | | 0.2 | | 0.3 | | 0.0 | 1.6 | 0.0 | | 0.3 | 24.0 | 5.9 | 25.3 | 1.2 |
| 11 | | 0.2 | | 0.5 | | 0.5 | | 0.9 | 56.4 | 4.8 | 6.8 | 0.3 | | 0.2 | | 0.0 | 5.9 | 0.0 | 0.5 | 0.2 | 1.9 | 5.0 | | 0.4 |
| 12 | | 0.2 | 2.2 | 0.5 | | 0.5 | | 0.7 | 4.7 | 9.6 | 41.5 | 1.5 | | 0.2 | | 0.0 | 0.5 | 0.0 | | 0.2 | | 2.1 | | 0.2 |
| 13 | | 0.2 | 14.6 | 0.9 | 2.8 | 0.5 | | 0.6 | | 1.7 | 50.5 | 22.1 | | 0.2 | | 0.0 | | 0.0 | | 0.2 | | 1.3 | | 0.1 |
| 14 | 46.0 | 8.0 | | 0.5 | 18.2 | 1.2 | | 0.5 | | 0.9 | 6.8 | 8.8 | | 0.1 | | 0.0 | | 0.0 | | 0.2 | 1.3 | 0.9 | | 0.1 |
| 15 | 17.5 | 7.6 | 10.0 | 0.8 | | 0.6 | | 0.4 | | 0.6 | | 2.9 | | 0.1 | | 0.0 | 32.5 | 1.7 | 142.3 | 45.4 | 1.3 | 0.8 | | 0.1 |
| 16 | 5.0 | 2.7 | | 0.9 | | 0.5 | | 0.3 | 12.1 | 0.4 | 46.2 | 22.7 | | 0.1 | | 0.0 | 11.2 | 1.0 | 200.4 | 191.1 | | 0.7 | | 0.1 |
| 17 | 1.0 | 1.6 | | 0.6 | | 0.4 | | 0.3 | 0.5 | 0.6 | | 4.5 | | 0.1 | | 0.0 | | 0.3 | | 3.3 | 1.9 | 0.6 | | 0.1 |
| 18 | | 1.1 | 21.0 | 3.4 | 3.1 | 0.4 | | 0.3 | | 0.4 | | 1.7 | 4.8 | 0.1 | | 0.0 | | 0.1 | | 1.5 | | 0.4 | 13.2 | 0.1 |
| 19 | | 0.9 | 7.4 | 5.0 | 10.8 | 1.0 | | 0.2 | 1.6 | 0.3 | 4.6 | 1.0 | | 0.1 | | 0.0 | | 0.0 | 2.1 | 0.9 | | 0.3 | 23.8 | 1.0 |
| 20 | | 0.7 | 15.2 | 3.6 | 5.1 | 0.6 | 10.2 | 0.3 | 36.2 | 3.7 | 34.6 | 7.7 | | 0.1 | | 0.0 | | 0.0 | 92.3 | 44.8 | | 0.3 | 11.6 | 5.2 |
| 21 | | 0.5 | 0.5 | 2.4 | | 0.6 | 25.4 | 2.4 | 0.5 | 4.7 | 12.9 | 7.3 | | 0.1 | | 0.0 | | 0.0 | 5.2 | 11.7 | | 0.2 | | 1.0 |
| 22 | 9.0 | 1.1 | | 1.5 | 1.5 | 0.5 | | 0.8 | | 1.4 | 3.1 | 7.0 | | 0.1 | | 0.0 | | 0.0 | 0.5 | 3.4 | | 0.3 | | 0.6 |
| 23 | 2.5 | 0.9 | | 1.1 | | 0.4 | | 0.4 | | 0.8 | | 2.5 | 31.9 | 0.8 | | 0.0 | 19.9 | 0.1 | 0.0 | 1.7 | | 0.3 | | 0.4 |
| 24 | 4.0 | 1.2 | | 0.8 | | 0.3 | 40.5 | 2.6 | | 0.5 | 1.0 | 1.4 | 0.5 | 0.2 | 1.1 | 0.0 | 23.1 | 2.5 | 2.6 | 1.2 | | 0.3 | | 0.3 |
| 25 | 0.5 | 0.9 | | 0.6 | 7.2 | 0.4 | 8.1 | 14.7 | | 0.4 | | 0.9 | | 0.1 | 22.2 | 0.0 | 33.8 | 9.4 | 27.1 | 1.9 | 3.5 | 0.2 | | 0.2 |
| 26 | | 0.7 | | 0.5 | | 0.4 | | 1.9 | | 0.3 | 61.5 | 17.0 | | 0.1 | | 0.0 | 0.5 | 1.5 | 51.6 | 37.9 | 8.8 | 0.7 | 1.0 | 0.2 |
| 27 | | 0.5 | 15.2 | 1.6 | 6.7 | 0.5 | | 1.0 | | 0.2 | 0.5 | 12.4 | | 0.1 | 24.4 | 0.8 | | 0.4 | 1.6 | 5.7 | | 0.4 | 8.3 | 0.5 |
| 28 | 2.7 | 0.6 | | 1.0 | | 0.6 | | 0.6 | | 0.2 | | 2.6 | | 0.1 | | 0.0 | | 0.2 | | 2.3 | 1.8 | 0.6 | | 0.3 |
| 29 | | 0.6 | | | | 0.4 | | 0.5 | 2.3 | 0.2 | 2.1 | 1.4 | 3.2 | 0.1 | | 0.0 | | 0.2 | 4.4 | 1.8 | | 0.4 | | 0.3 |
| 30 | | 0.5 | | | | 0.3 | 9.7 | 0.5 | 20.4 | 0.7 | | 0.9 | | 0.1 | | 0.0 | 0.5 | 0.1 | 0.5 | 1.6 | | 0.2 | | 0.3 |
| 31 | | 0.5 | | | 3.6 | 0.3 | | | 3.4 | 0.6 | | | | 0.1 | | 0.0 | | | | 1.0 | | | | 0.2 |
| total | 88.2 | 37.7 | 147.9 | 49.5 | 72.7 | 20.7 | 310.7 | 168.4 | 153.7 | 37.9 | 276.9 | 128.9 | 72.0 | 12.1 | 49.3 | 1.2 | 183.8 | 20.1 | 629.8 | 389.4 | 89.2 | 38.1 | 83.2 | 14.0 |

∗ Modifications are shown by shaded figures.

付表－21　新田の日降水量と袋山沢 C の日流出量（修正版）

**FUKUROYAMASAWA C　2013　unit: mm/day**　　*annual precipitation at Shinta: 2157.4*　　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | | 2.0 | 15.2 | 0.3 | 13.7 | 0.8 | 0.5 | 0.1 | 9.7 | 0.7 | | 0.2 | | 0.6 | | 0.0 | | 0.0 | 13.4 | 0.1 | | 0.5 | | 0.1 |
| 2 | | 1.0 | 21.1 | 7.6 | | 2.0 | 51.1 | 6.5 | 5.9 | 0.6 | | 0.1 | | 0.4 | | 0.0 | | 0.0 | 61.8 | 17.5 | 3.9 | 0.4 | | 0.1 |
| 3 | | 0.7 | | 2.3 | | 0.8 | 50.9 | 34.4 | | 0.3 | | 0.1 | | 0.4 | | 0.0 | 0.5 | 0.0 | | 1.7 | | 0.4 | | 0.1 |
| 4 | | 0.5 | 1.1 | 1.0 | | 0.3 | | 4.6 | | 0.2 | | 0.1 | 15.8 | 0.7 | | 0.0 | 27.7 | 0.3 | 2.1 | 0.4 | 21.6 | 2.6 | | 0.1 |
| 5 | | 0.4 | | 0.6 | | 0.4 | | 1.3 | | 0.2 | | 0.0 | 15.8 | 2.8 | | 0.0 | 22.4 | 1.3 | 20.9 | 2.0 | | 1.1 | | 0.1 |
| 6 | | 0.3 | 24.4 | 3.8 | | 0.3 | 81.3 | 30.5 | | 0.1 | 3.2 | 0.1 | | 0.8 | 1.6 | 0.0 | | 0.1 | 0.5 | 1.2 | | 0.6 | | 0.2 |
| 7 | | 0.3 | | 2.4 | | 0.3 | 33.0 | 43.7 | | 0.1 | 1.1 | 0.0 | | 0.5 | | 0.0 | | 0.0 | | 0.6 | 16.7 | 2.9 | | 0.1 |
| 8 | | 0.2 | | 1.2 | | 0.2 | | 2.9 | | 0.1 | 0.5 | 0.1 | | 0.3 | | 0.0 | 3.7 | 0.0 | | 0.3 | | 1.6 | | 0.0 |
| 9 | | 0.2 | | 0.7 | | 0.2 | | 1.2 | | 0.1 | | 0.1 | | 0.2 | | 0.0 | | 0.0 | | 0.2 | 2.5 | 0.8 | | 0.1 |
| 10 | | 0.2 | | 0.5 | | 0.2 | | 0.8 | | 0.1 | | 0.1 | | 0.1 | | 0.0 | 1.6 | 0.0 | | 0.1 | 24.0 | 5.0 | 25.3 | 1.0 |
| 11 | | 0.1 | | 0.4 | | 0.1 | | 0.6 | 56.4 | 4.5 | 6.8 | 0.1 | | 0.1 | | 0.0 | 5.9 | 0.0 | 0.5 | 0.1 | 1.9 | 3.8 | | 0.2 |
| 12 | | 0.1 | 2.2 | 0.3 | | 0.1 | | 0.4 | 4.7 | 8.0 | 41.5 | 1.2 | | 0.1 | | 0.0 | 0.5 | 0.0 | | 0.0 | | 1.3 | | 0.1 |
| 13 | | 0.1 | 14.6 | 0.8 | 2.8 | 0.1 | | 0.3 | | 1.1 | 50.5 | 20.0 | | 0.1 | | 0.0 | | 0.0 | | 0.0 | | 0.8 | | 0.1 |
| 14 | 46.0 | 7.9 | | 0.4 | 18.2 | 0.8 | | 0.2 | | 0.5 | 6.8 | 7.4 | | 0.0 | | 0.0 | | 0.0 | | 0.0 | 1.3 | 0.5 | | 0.1 |
| 15 | 17.5 | 7.5 | 10.0 | 0.6 | | 0.2 | | 0.2 | | 0.3 | | 2.2 | | 0.0 | | 0.0 | 32.5 | 1.2 | 142.3 | 44.7 | 1.3 | 0.4 | | 0.0 |
| 16 | 5.0 | 2.6 | | 0.7 | | 0.1 | | 0.2 | 12.1 | 0.3 | 46.2 | 21.5 | | 0.0 | | 0.0 | 11.2 | 0.5 | 200.4 | n/a | | 0.4 | | 0.0 |
| 17 | 1.0 | 1.4 | | 0.4 | | 0.1 | | 0.1 | 0.5 | 0.5 | | 4.1 | | 0.0 | | 0.0 | | 0.1 | | n/a | 1.9 | 0.3 | | 0.0 |
| 18 | | 0.9 | 21.0 | 3.2 | 3.1 | 0.1 | | 0.1 | | 0.2 | | 1.5 | 4.8 | 0.0 | | 0.0 | | 0.0 | | n/a | | 0.3 | 13.2 | 0.1 |
| 19 | | 0.6 | 7.4 | 4.5 | 10.8 | 0.4 | | 0.1 | 1.6 | 0.1 | 4.6 | 0.8 | | 0.0 | | 0.0 | | 0.0 | 2.1 | n/a | | 0.3 | 23.8 | 1.4 |
| 20 | | 0.5 | 15.2 | 3.2 | 5.1 | 0.2 | 10.2 | 0.1 | 36.2 | 3.6 | 34.6 | 7.2 | | 0.0 | | 0.0 | | 0.0 | 92.3 | n/a | | 0.3 | 11.6 | 4.4 |
| 21 | | 0.4 | 0.5 | 2.2 | | 0.2 | 25.4 | 2.1 | 0.5 | 4.1 | 12.9 | 6.5 | | 0.0 | | 0.0 | | 0.0 | 5.2 | n/a | | 0.2 | | 0.6 |
| 22 | 9.0 | 0.9 | | 1.3 | 1.5 | 0.1 | | 0.5 | | 0.9 | 3.1 | 6.5 | | 0.1 | | 0.0 | | 0.0 | 0.5 | n/a | | 0.2 | | 0.3 |
| 23 | 2.5 | 0.6 | | 0.9 | | 0.1 | | 0.2 | | 0.5 | | 2.2 | 31.9 | 0.8 | | 0.0 | 19.9 | 0.1 | 0.0 | n/a | | 0.2 | | 0.2 |
| 24 | 4.0 | 1.0 | | 0.6 | | 0.1 | 40.5 | 1.8 | | 0.3 | 1.0 | 1.1 | 0.5 | 0.1 | 1.1 | 0.0 | 23.1 | 1.9 | 2.6 | n/a | | 0.3 | | 0.1 |
| 25 | 0.5 | 0.7 | | 0.4 | 7.2 | 0.1 | 8.1 | 13.0 | | 0.2 | | 0.7 | | 0.0 | 22.2 | 0.0 | 33.8 | 7.9 | 27.1 | n/a | 3.5 | 0.3 | | 0.1 |
| 26 | | 0.5 | | 0.4 | | 0.1 | | 1.3 | | 0.2 | 61.5 | 16.7 | | 0.0 | | 0.0 | 0.5 | 0.8 | 51.6 | n/a | 8.8 | 0.3 | 1.0 | 0.1 |
| 27 | | 0.4 | 15.2 | 1.3 | 6.7 | 0.2 | | 0.6 | | 0.1 | 0.5 | 11.5 | | 0.0 | 24.4 | 0.7 | | 0.1 | 1.6 | n/a | | 0.1 | 8.3 | 0.2 |
| 28 | 2.7 | 0.3 | | 0.7 | | 0.2 | | 0.3 | | 0.2 | | 2.4 | | 0.0 | | 0.0 | | 0.1 | | n/a | 1.8 | 0.1 | | 0.1 |
| 29 | | 0.2 | | | | 0.1 | | 0.3 | 2.3 | 0.2 | 2.1 | 1.2 | 3.2 | 0.0 | | 0.0 | | 0.0 | 4.4 | n/a | | 0.1 | | 0.1 |
| 30 | | 0.2 | | | | 0.1 | 9.7 | 0.3 | 20.4 | 0.5 | | 0.8 | | 0.0 | | 0.0 | 0.5 | 0.0 | 0.5 | 1.0 | | 0.1 | | 0.1 |
| 31 | | 0.2 | | | 3.6 | 0.1 | | | 3.4 | 0.4 | | | | 0.0 | | 0.0 | | | | 0.6 | | | | 0.1 |
| total | 88.2 | 32.9 | 147.9 | 42.7 | 72.7 | 9.1 | 310.7 | 148.7 | 153.7 | 29.2 | 276.9 | 116.5 | 72.0 | 8.1 | 49.3 | 0.7 | 183.8 | 14.4 | 629.8 | n/a | 89.2 | 26.2 | 83.2 | 10.3 |

∗ Modifications are shown by shaded figures.

付表－22　新田の日降水量と袋山沢 A の日流出量（修正版）

**FUKUROYAMASAWA A　2014　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2154.0*　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | 0.0 | | 0.0 | | 1.4 | | 0.5 | 10.2 | 6.8 | | 0.3 | | n/a | | 0.0 | 30.3 | 1.4 | 1.7 | 0.0 | 24.5 | 1.3 | 24.5 | 6.3 |
| 2 | | 0.0 | | 0.0 | 21.4 | 3.4 | 0.5 | 0.3 | | 1.0 | | 0.4 | | n/a | | 0.0 | | 1.0 | 1.4 | 0.0 | | 1.5 | | 1.9 |
| 3 | | 0.0 | | 0.0 | 0.5 | 3.3 | 52.9 | 13.1 | | 0.4 | | 0.4 | 3.3 | n/a | | 0.0 | | 0.1 | | 0.0 | | 0.4 | 0.0 | 0.4 |
| 4 | | 0.0 | 3.1 | 0.0 | 1.0 | 1.3 | 29.1 | 29.7 | | 0.2 | | 0.2 | 23.0 | n/a | | 0.0 | | 0.0 | | 0.0 | | 0.2 | 3.8 | 0.5 |
| 5 | | 0.0 | 3.1 | 0.0 | 60.2 | 28.6 | 0.5 | 3.2 | 4.6 | 0.2 | 11.8 | 0.4 | 2.2 | n/a | | 0.0 | 0.5 | 0.0 | 99.4 | 15.4 | | 0.1 | 0.6 | 0.5 |
| 6 | | 0.0 | | 0.0 | 0.5 | 10.3 | 11.1 | 2.3 | | 0.3 | 158.3 | n/a | | n/a | | 0.0 | | 0.0 | 68.2 | 43.2 | 3.1 | 0.2 | | 0.3 |
| 7 | | 0.0 | | 0.0 | | 2.3 | | 1.1 | | 0.1 | 67.6 | n/a | 10.4 | n/a | | 0.0 | 15.5 | 0.2 | | 1.0 | | 0.2 | | 0.3 |
| 8 | 56.1 | 2.8 | | 0.0 | | 1.2 | | 0.7 | | 0.1 | 2.1 | n/a | | n/a | | 0.0 | 13.9 | 0.4 | | 0.1 | 1.2 | 0.1 | | 0.1 |
| 9 | 14.8 | 12.7 | 20.9 | 0.7 | | 0.8 | | 0.5 | | 0.1 | 1.6 | n/a | 0.5 | n/a | 6.2 | 0.0 | 1.6 | 0.7 | | 0.1 | 7.4 | 0.1 | | 0.0 |
| 10 | 0.5 | 0.6 | 2.6 | 0.7 | | 0.5 | | 0.4 | | 0.0 | 1.6 | n/a | 13.1 | n/a | 31.6 | 0.7 | | 0.1 | | 0.0 | | 0.1 | 0.5 | 0.0 |
| 11 | | 0.2 | 3.1 | 0.5 | | 0.2 | | 0.2 | | 0.0 | 55.3 | n/a | 13.7 | 3.6 | | 0.4 | 28.9 | 4.5 | | 0.1 | | 0.1 | 51.4 | 10.0 |
| 12 | | 0.1 | 1.0 | 0.6 | | 0.2 | | 0.2 | | 0.0 | 17.2 | n/a | | 0.4 | 20.2 | 1.3 | | 0.3 | | 0.0 | | 0.1 | | 2.2 |
| 13 | | 0.0 | | 0.6 | 46.9 | 9.3 | | 0.2 | 21.0 | 0.7 | 0.5 | n/a | 1.3 | 0.2 | 1.6 | 0.5 | 1.6 | 0.1 | 34.8 | 2.5 | | 0.1 | | 0.7 |
| 14 | | 0.0 | 0.5 | 0.7 | | 5.6 | 1.8 | 0.1 | | 0.2 | | n/a | | 0.1 | | 0.1 | | 0.1 | 21.4 | 12.0 | | 0.0 | | 0.3 |
| 15 | 2.1 | 0.0 | 95.9 | 86.6 | | 1.2 | | 0.1 | 8.3 | 0.7 | | n/a | | 0.1 | | 0.0 | 14.6 | 0.2 | 8.1 | 0.8 | | 0.0 | | 0.2 |
| 16 | | 0.0 | 3.6 | 8.6 | | 0.7 | | 0.1 | | 0.4 | | n/a | | 0.0 | | 0.0 | | 0.1 | 2.0 | 0.4 | | 0.0 | 63.0 | 23.9 |
| 17 | | 0.0 | | 5.3 | | 0.5 | | 0.1 | | 0.1 | | n/a | | 0.0 | | 0.0 | | 0.0 | | 0.4 | 0.5 | 0.0 | | 7.4 |
| 18 | | 0.0 | | 3.7 | | 0.5 | 8.1 | 0.1 | | 0.1 | 6.2 | n/a | | 0.0 | | 0.0 | | 0.0 | | 0.5 | | 0.0 | | 1.5 |
| 19 | 0.5 | 0.0 | | 1.9 | | 0.4 | 0.5 | 0.0 | | 0.0 | 0.6 | n/a | 4.8 | 0.0 | | 0.0 | | 0.0 | | 0.2 | | 0.0 | | 0.6 |
| 20 | | 0.0 | | 1.3 | 41.3 | 10.4 | | 0.1 | | 0.0 | | n/a | | 0.0 | | 0.0 | 3.5 | 0.0 | | 0.4 | 19.7 | 0.1 | 56.3 | 20.7 |
| 21 | | 0.0 | | 1.3 | 0.5 | 3.3 | 17.8 | 0.2 | 52.7 | 6.2 | | n/a | | 0.0 | | 0.0 | | 0.0 | 2.0 | 0.3 | | 0.2 | | 11.5 |
| 22 | | 0.0 | | 1.1 | | 1.0 | 5.4 | 0.5 | 22.4 | 3.8 | 1.7 | n/a | | 0.0 | | 0.0 | | 0.0 | 46.4 | 8.7 | | 0.0 | | 2.2 |
| 23 | | 0.0 | | 1.0 | | 0.5 | 2.2 | 0.2 | | 1.7 | | n/a | | 0.0 | 9.6 | 0.0 | | 0.0 | 14.7 | 5.7 | | 0.0 | | 0.9 |
| 24 | | 0.0 | | 1.7 | | 0.4 | 6.4 | 0.1 | | 0.5 | 7.9 | n/a | | 0.0 | | 0.0 | | 0.0 | | 2.1 | | 0.0 | | 0.6 |
| 25 | | 0.0 | | 1.6 | | 0.3 | | 0.1 | | 0.4 | 4.0 | n/a | | 0.0 | | 0.0 | 14.4 | 0.0 | | 0.7 | 9.9 | 0.0 | | 0.4 |
| 26 | 7.4 | 0.0 | | 1.4 | 2.7 | 0.2 | | 0.0 | 6.9 | 0.2 | | n/a | | 0.0 | 1.1 | 0.0 | 1.7 | 0.0 | 12.7 | 0.7 | 38.1 | 4.9 | | 0.2 |
| 27 | | 0.0 | 6.6 | 1.7 | 4.3 | 0.2 | | 0.0 | 54.9 | 28.9 | 1.1 | n/a | | 0.0 | 9.0 | 0.0 | | 0.0 | 0.5 | 1.4 | 4.7 | 3.6 | | 0.1 |
| 28 | | 0.0 | 5.6 | 3.2 | | 0.1 | | 0.0 | | 2.3 | 7.4 | n/a | | 0.0 | 6.9 | 0.0 | | 0.0 | | 0.4 | 0.5 | 0.5 | | 0.1 |
| 29 | | 0.0 | | | | 0.1 | 1.1 | 0.1 | | 1.0 | 5.1 | n/a | | 0.0 | 3.2 | 0.0 | | 0.0 | | 0.2 | 18.8 | 2.3 | 14.5 | 0.8 |
| 30 | 19.1 | 0.4 | | | 41.7 | 6.0 | 52.4 | 5.3 | | 0.6 | | n/a | | 0.0 | 17.6 | 0.6 | | 0.0 | | 0.1 | 1.6 | 1.2 | 0.5 | 0.3 |
| 31 | | 0.2 | | | | 1.9 | | | | 0.4 | | | | 0.0 | | 0.0 | | | | 0.1 | | | 1.0 | 0.2 |
| total | 101.0 | 17.0 | 146.0 | 124.2 | 221.0 | 96.1 | 189.8 | 59.5 | 181.0 | 57.4 | 350.0 | n/a | 72.3 | n/a | 107.0 | 3.6 | 126.5 | 9.2 | 313.3 | 97.5 | 130.0 | 17.3 | 216.1 | 95.1 |

∗ Modifications are shown by shaded figures.

付表－23　新田の日降水量と袋山沢 B の日流出量（修正版）

**FUKUROYAMASAWA B　2014　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta: 2154.0*　**annual runoff: 942.4**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | 0.2 | | 0.3 | | 3.7 | | 1.4 | 10.2 | 11.0 | | 0.5 | | 0.3 | | 0.0 | 30.3 | 1.1 | 1.7 | 0.0 | 24.5 | 1.3 | 24.5 | 8.2 |
| 2 | | 0.2 | | 0.2 | 21.4 | 5.3 | 0.5 | 0.9 | | 2.4 | | 0.5 | | 0.2 | | 0.0 | | 1.7 | 1.4 | 0.0 | | 2.2 | | 3.7 |
| 3 | | 0.2 | | 0.2 | 0.5 | 6.2 | 52.9 | 14.3 | | 1.2 | | 0.4 | 3.3 | 0.3 | | 0.0 | | 0.2 | | 0.0 | | 0.9 | 0.0 | 1.3 |
| 4 | | 0.2 | 3.1 | 0.2 | 1.0 | 2.4 | 29.1 | 29.0 | | 0.8 | | 0.3 | 23.0 | 2.0 | | 0.0 | | 0.1 | | 0.0 | | 0.6 | 3.8 | 0.8 |
| 5 | | 0.2 | 3.1 | 0.3 | 60.2 | 27.7 | 0.5 | 3.5 | 4.6 | 0.7 | 11.8 | 0.4 | 2.2 | 0.7 | | 0.0 | 0.5 | 0.1 | 99.4 | 19.5 | | 0.4 | 0.6 | 0.6 |
| 6 | | 0.1 | | 0.2 | 0.5 | 11.0 | 11.1 | 2.7 | | 1.0 | 158.3 | 59.4 | | 0.4 | | 0.0 | | 0.0 | 68.2 | 46.4 | 3.1 | 0.4 | | 0.5 |
| 7 | | 0.1 | | 0.2 | | 2.7 | | 1.7 | | 1.0 | 67.6 | 81.0 | 10.4 | 0.7 | | 0.0 | 15.5 | 0.3 | | 2.8 | | 0.3 | | 0.4 |
| 8 | 56.1 | 4.2 | | 0.3 | | 1.5 | | 1.2 | | 0.9 | 2.1 | 10.9 | | 0.6 | | 0.0 | 13.9 | 0.3 | | 1.0 | 1.2 | 0.3 | | 0.3 |
| 9 | 14.8 | 18.1 | 20.9 | 1.0 | | 1.0 | | 0.9 | | 0.7 | 1.6 | 3.9 | 0.5 | 0.4 | 6.2 | 0.0 | 1.6 | 0.9 | | 0.6 | 7.4 | 0.3 | | 0.3 |
| 10 | 0.5 | 2.0 | 2.6 | 1.0 | | 0.8 | | 0.7 | | 0.4 | 1.6 | 2.3 | 13.1 | 0.5 | 31.6 | 0.4 | | 0.3 | | 0.4 | | 0.3 | 0.5 | 0.2 |
| 11 | | 1.1 | 3.1 | 0.8 | | 0.6 | | 0.5 | | 0.2 | 55.3 | 16.8 | 13.7 | 4.1 | | 0.5 | 28.9 | 4.9 | | 0.3 | | 0.2 | 51.4 | 12.3 |
| 12 | | 0.8 | 1.0 | 0.9 | | 0.5 | | 0.5 | | 0.2 | 17.2 | 25.7 | | 1.0 | 20.2 | 0.7 | | 0.8 | | 0.1 | | 0.2 | | 3.9 |
| 13 | | 0.6 | | 1.9 | 46.9 | 8.8 | | 0.4 | 21.0 | 0.8 | 0.5 | 4.7 | 1.3 | 0.3 | 1.6 | 0.8 | 1.6 | 0.3 | 34.8 | 2.0 | | 0.2 | | 1.4 |
| 14 | | 0.4 | 0.5 | 2.4 | | 7.0 | 1.8 | 0.4 | | 0.4 | | 2.2 | | 0.0 | | 0.2 | | 0.2 | 21.4 | 13.4 | | 0.1 | | 0.9 |
| 15 | 2.1 | 0.4 | 95.9 | 77.9 | | 1.8 | | 0.4 | 8.3 | 0.5 | | 1.4 | | 0.0 | | 0.1 | 14.6 | 0.3 | 8.1 | 1.6 | | 0.1 | | 0.6 |
| 16 | | 0.3 | 3.6 | 8.4 | | 1.1 | | 0.3 | | 0.4 | | 1.1 | | 0.0 | | 0.0 | | 0.3 | 2.0 | 1.0 | | 0.1 | 63.0 | 23.5 |
| 17 | | 0.3 | | 4.8 | | 0.8 | | 0.3 | | 0.3 | | 0.8 | | 0.0 | | 0.0 | | 0.2 | | 0.6 | 0.5 | 0.1 | | 9.2 |
| 18 | | 0.3 | | 3.2 | | 0.7 | 8.1 | 0.3 | | 0.2 | 6.2 | 0.8 | | 0.0 | | 0.0 | | 0.1 | | 0.4 | | 0.1 | | 1.8 |
| 19 | 0.5 | 0.3 | | 1.9 | | 0.5 | 0.5 | 0.3 | | 0.2 | 0.6 | 0.7 | 4.8 | 0.0 | | 0.0 | | 0.1 | | 0.3 | | 0.1 | | 1.0 |
| 20 | | 0.4 | | 1.5 | 41.3 | 11.0 | | 0.3 | | 0.2 | | 0.5 | | 0.0 | | 0.0 | 3.5 | 0.1 | | 0.2 | 19.7 | 0.2 | 56.3 | 18.0 |
| 21 | | 0.4 | | 1.5 | 0.5 | 4.8 | 17.8 | 0.4 | 52.7 | 8.7 | | 0.5 | | 0.0 | | 0.0 | | 0.1 | 2.0 | 0.2 | | 0.4 | | 12.5 |
| 22 | | 0.3 | | 1.3 | | 1.7 | 5.4 | 1.0 | 22.4 | 6.3 | 1.7 | 0.5 | | 0.0 | | 0.0 | | 0.0 | 46.4 | 9.7 | | 0.2 | | 2.2 |
| 23 | | 0.2 | | 1.2 | | 1.1 | 2.2 | 0.5 | | 4.0 | | 0.4 | | 0.0 | 9.6 | 0.0 | | 0.0 | 14.7 | 8.8 | | 0.1 | | 1.3 |
| 24 | | 0.2 | | 1.8 | | 0.8 | 6.4 | 0.5 | | 1.6 | 7.9 | 0.5 | | 0.0 | | 0.0 | | 0.0 | | 3.8 | | 0.1 | | 0.9 |
| 25 | | 0.2 | | 2.3 | | 0.6 | | 0.5 | | 1.0 | 4.0 | 0.4 | | 0.0 | | 0.0 | 14.4 | 0.2 | | 1.3 | 9.9 | 0.1 | | 0.6 |
| 26 | 7.4 | 0.2 | | 2.1 | 2.7 | 0.5 | | 0.3 | 6.9 | 0.7 | | 0.4 | | 0.1 | 1.1 | 0.0 | 1.7 | 0.1 | 12.7 | 0.8 | 38.1 | 6.3 | | 0.5 |
| 27 | | 0.2 | 6.6 | 3.7 | 4.3 | 0.5 | | 0.3 | 54.9 | 30.7 | 1.1 | 0.9 | | 0.1 | 9.0 | 0.0 | | 0.0 | 0.5 | 1.7 | 4.7 | 6.4 | | 0.4 |
| 28 | | 0.3 | 5.6 | 10.1 | | 0.4 | | 0.4 | | 3.6 | 7.4 | 1.5 | | 0.0 | 6.9 | 0.0 | | 0.0 | | 0.8 | 0.5 | 1.6 | | 0.4 |
| 29 | | 0.1 | | | | 0.3 | 1.1 | 0.3 | | 1.6 | 5.1 | 0.5 | | 0.0 | 3.2 | 0.0 | | 0.0 | | 0.5 | 18.8 | 3.4 | 14.5 | 0.9 |
| 30 | 19.1 | 0.7 | | | 41.7 | 6.9 | 52.4 | 6.6 | | 1.0 | | 0.4 | | 0.0 | 17.6 | 0.5 | | 0.0 | | 0.4 | 1.6 | 2.7 | 0.5 | 0.6 |
| 31 | | 0.6 | | | | 3.6 | | | | 0.8 | | | | 0.0 | | 0.1 | | | | 0.4 | | | 1.0 | 0.5 |
| total | 101.0 | 33.8 | 146.0 | 131.6 | 221.0 | 116.3 | 189.8 | 70.8 | 181.0 | 83.5 | 350.0 | 220.3 | 72.3 | 11.7 | 107.0 | 3.3 | 126.5 | 12.7 | 313.3 | 119.0 | 130.0 | 29.7 | 216.1 | 109.7 |

∗ Modifications are shown by shaded figures.

付表－24　新田の日降水量と袋山沢 C の日流出量（修正版）

**FUKUROYAMASAWA C　2014　unit: mm/day**　　*annual precipitation at Shinta: 2154.0*　　**annual runoff: n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | 0.1 | | 0.1 | | 2.8 | | 1.0 | 10.2 | 9.1 | | 0.3 | | n/a | | n/a | 30.3 | n/a | 1.7 | n/a | 24.5 | n/a | 24.5 | n/a |
| 2 | | 0.1 | | 0.1 | 21.4 | 4.6 | 0.5 | 0.6 | | 1.7 | | 0.2 | | n/a | | n/a | | n/a | 1.4 | n/a | | n/a | | n/a |
| 3 | | 0.1 | | 0.1 | 0.5 | 5.2 | 52.9 | 14.2 | | 0.7 | | 0.1 | 3.3 | n/a | | n/a | | n/a | | n/a | | n/a | 0.0 | n/a |
| 4 | | 0.1 | 3.1 | 0.3 | 1.0 | 2.1 | 29.1 | 30.6 | | 0.4 | | 0.1 | 23.0 | n/a | | n/a | | n/a | | n/a | | n/a | 3.8 | n/a |
| 5 | | 0.1 | 3.1 | 0.4 | 60.2 | 31.0 | 0.5 | 3.6 | 4.6 | 0.3 | 11.8 | 0.2 | 2.2 | n/a | | n/a | 0.5 | n/a | 99.4 | n/a | | n/a | 0.6 | n/a |
| 6 | | 0.1 | | 0.4 | 0.5 | 11.5 | 11.1 | 2.7 | | 0.2 | 158.3 | n/a | | n/a | | n/a | | n/a | 68.2 | n/a | 3.1 | n/a | | n/a |
| 7 | | 0.1 | | 0.4 | | 2.7 | | 1.5 | | 0.2 | 67.6 | n/a | 10.4 | n/a | | n/a | 15.5 | n/a | | n/a | | n/a | | n/a |
| 8 | 56.1 | 3.5 | | 0.6 | | 1.5 | | 1.0 | | 0.2 | 2.1 | n/a | | n/a | | n/a | 13.9 | n/a | | n/a | 1.2 | n/a | | n/a |
| 9 | 14.8 | 15.9 | 20.9 | 1.7 | | 1.0 | | 0.7 | | 0.1 | 1.6 | n/a | 0.5 | n/a | 6.2 | n/a | 1.6 | n/a | | n/a | 7.4 | n/a | | n/a |
| 10 | 0.5 | 1.3 | 2.6 | 1.6 | | 0.6 | | 0.6 | | 0.1 | 1.6 | n/a | 13.1 | n/a | 31.6 | n/a | | n/a | | n/a | | n/a | 0.5 | n/a |
| 11 | | 0.6 | 3.1 | 1.4 | | 0.4 | | 0.4 | | 0.1 | 55.3 | n/a | 13.7 | n/a | | n/a | 28.9 | n/a | | n/a | | n/a | 51.4 | n/a |
| 12 | | 0.5 | 1.0 | 1.6 | | 0.4 | | 0.3 | | 0.1 | 17.2 | n/a | | n/a | 20.2 | n/a | | n/a | | n/a | | n/a | | n/a |
| 13 | | 0.3 | | 1.7 | 46.9 | 9.4 | | 0.3 | 21.0 | 0.6 | 0.5 | n/a | 1.3 | n/a | 1.6 | n/a | 1.6 | n/a | 34.8 | n/a | | n/a | | n/a |
| 14 | | 0.2 | 0.5 | 1.2 | | 6.8 | 1.8 | 0.2 | | 0.2 | | n/a | | n/a | | n/a | | n/a | 21.4 | n/a | | n/a | | n/a |
| 15 | 2.1 | 0.2 | 95.9 | 97.6 | | 1.7 | | 0.2 | 8.3 | 0.3 | | n/a | | n/a | | n/a | 14.6 | n/a | 8.1 | n/a | | n/a | | n/a |
| 16 | | 0.2 | 3.6 | 8.9 | | 1.0 | | 0.2 | | 0.2 | | n/a | | n/a | | n/a | | n/a | 2.0 | n/a | | n/a | 63.0 | n/a |
| 17 | | 0.1 | | 5.2 | | 0.7 | | 0.2 | | 0.1 | | n/a | | n/a | | n/a | | n/a | | n/a | 0.5 | n/a | | n/a |
| 18 | | 0.1 | | 3.6 | | 0.6 | 8.1 | 0.2 | | 0.1 | 6.2 | n/a | | n/a | | n/a | | n/a | | n/a | | n/a | | n/a |
| 19 | 0.5 | 0.1 | | 2.1 | | 0.4 | 0.5 | 0.1 | | 0.1 | 0.6 | n/a | 4.8 | n/a | | n/a | | n/a | | n/a | | n/a | | n/a |
| 20 | | 0.1 | | 1.4 | 41.3 | 11.2 | | 0.1 | | 0.1 | | n/a | | n/a | | n/a | 3.5 | n/a | | n/a | 19.7 | n/a | 56.3 | n/a |
| 21 | | 0.1 | | 1.4 | 0.5 | 4.4 | 17.8 | 0.2 | 52.7 | 6.7 | | n/a | | n/a | | n/a | | n/a | 2.0 | n/a | | n/a | | n/a |
| 22 | | 0.1 | | 1.3 | | 1.4 | 5.4 | 0.7 | 22.4 | 4.7 | 1.7 | n/a | | n/a | | n/a | | n/a | 46.4 | n/a | | n/a | | n/a |
| 23 | | 0.1 | | 1.1 | | 0.9 | 2.2 | 0.3 | | 2.6 | | n/a | | n/a | 9.6 | n/a | | n/a | 14.7 | n/a | | n/a | | n/a |
| 24 | | 0.1 | | 1.9 | | 0.7 | 6.4 | 0.3 | | 0.9 | 7.9 | n/a | | n/a | | n/a | | n/a | | n/a | | n/a | | n/a |
| 25 | | 0.1 | | 2.2 | | 0.5 | | 0.2 | | 0.5 | 4.0 | n/a | | n/a | | n/a | 14.4 | n/a | | n/a | 9.9 | n/a | | n/a |
| 26 | 7.4 | 0.1 | | 2.0 | 2.7 | 0.4 | | 0.2 | 6.9 | 0.3 | | n/a | | n/a | 1.1 | n/a | 1.7 | n/a | 12.7 | n/a | 38.1 | n/a | | n/a |
| 27 | | 0.0 | 6.6 | 2.9 | 4.3 | 0.4 | | 0.1 | 54.9 | 30.1 | 1.1 | n/a | | n/a | 9.0 | n/a | | n/a | 0.5 | n/a | 4.7 | n/a | | n/a |
| 28 | | 0.0 | 5.6 | 7.0 | | 0.3 | | 0.1 | | 2.6 | 7.4 | n/a | | n/a | 6.9 | n/a | | n/a | | n/a | 0.5 | n/a | | n/a |
| 29 | | 0.0 | | | | 0.2 | 1.1 | 0.1 | | 1.0 | 5.1 | n/a | | n/a | 3.2 | n/a | | n/a | | n/a | 18.8 | n/a | 14.5 | n/a |
| 30 | 19.1 | 0.6 | | | 41.7 | 6.4 | 52.4 | 5.8 | | 0.6 | | n/a | | n/a | 17.6 | n/a | | n/a | | n/a | 1.6 | n/a | 0.5 | n/a |
| 31 | | 0.4 | | | | 3.0 | | | | 0.4 | | | | n/a | | n/a | | | | n/a | | | 1.0 | n/a |
| total | 101.0 | 25.4 | 146.0 | 150.2 | 221.0 | 114.2 | 189.8 | 66.7 | 181.0 | 65.3 | 350.0 | n/a | 72.3 | n/a | 107.0 | n/a | 126.5 | n/a | 313.3 | n/a | 130.0 | n/a | 216.1 | n/a |

∗ Modifications are shown by shaded figures.

付表－25　加納の降水水質（修正版）

**KANOU**　　**2014**

| 2014 | 採水期間 | サンプル個数 | 降水量 (mm) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2013/12/11～2014/1/9 | | | | | | | | | | | | |
| 2 | 2014/1/9～2014/2/17 | 7 | 119.0 | | | 0.83 | 0.12 | 0.19 | 0.24 | 0.24 | 2.82 | 0.98 | 2.54 |
| 3 | 2014/2/17～2014/3/14 | 6 | 155.4 | | | 2.78 | 0.30 | 0.66 | 0.42 | 0.29 | 9.44 | 0.57 | 3.27 |
| 4 | 2014/3/14～2014/4/7 | | | | | | | | | | | | |
| 5 | 2014/4/7～2014/5/21 | | | | | | | | | | | | |
| 6 | 2014/5/21～2014/6/18 | 7 | 230.4 | | | 0.24 | 0.12 | 0.07 | 0.11 | 0.23 | 0.98 | 0.51 | 1.00 |
| 7 | 2014/6/18～2014/7/15 | 9 | 138.3 | | | 0.35 | 1.03 | 0.19 | 0.36 | 0.29 | 1.55 | 0.72 | 1.56 |
| 8 | 2014/7/15～2014/8/18 | 4 | 30.4 | | | 1.67 | 0.59 | 0.45 | 0.52 | 0.95 | 5.28 | 1.47 | 3.97 |
| 9 | 2014/8/18～2014/9/11 | 7 | 142.2 | | | 0.20 | 0.15 | 0.07 | 0.19 | 0.22 | 0.68 | 0.45 | 0.75 |
| 10 | 2014/9/11～2014/10/22 | 10 | 385.0 | | | 3.46 | 0.31 | 0.74 | 0.32 | 0.21 | 11.39 | 0.40 | 2.46 |
| 11 | 2014/10/22～2014/11/18 | 6 | 78.0 | | | 0.80 | 0.39 | 0.24 | 0.27 | 1.30 | 2.74 | 0.91 | 2.06 |
| 12 | 2014/11/18～2014/12/17 | 7 | 111.6 | | | 2.74 | 0.24 | 0.64 | 0.47 | 0.17 | 9.14 | 0.49 | 2.45 |

Note: blank cell is no data (water was not sampled or not measured /analysed)
＊Modifications are shown by shaded figures.

付表－26　新田の日降水量と袋山沢 A の日流出量（修正版）

**FUKUROYAMASAWA A　2015　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta:* 2473.8　**annual runoff:　n/a**

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | 0.2 | | 1.4 | 40.1 | n/a | 2.9 | 0.2 | n/a | 0.2 | n/a | 0.1 | n/a | 2.5 | | 0.0 | n/a | 0.3 | 17.3 | 1.1 | | 0.0 | | 0.3 |
| 2 | 1.0 | 0.0 | | 0.7 | 0.8 | 13.5 | | 0.1 | n/a | 0.1 | n/a | 0.1 | n/a | 1.4 | | 0.0 | n/a | 0.7 | 12.9 | 2.6 | 29.0 | 1.5 | 5.9 | 0.3 |
| 3 | | 0.0 | | 0.4 | 0.8 | 2.4 | | 0.0 | n/a | 0.1 | n/a | 11.0 | n/a | 19.6 | | 0.0 | n/a | 0.3 | | 0.9 | | 0.2 | 26.6 | 5.6 |
| 4 | | 0.0 | | 0.3 | 34.0 | 8.4 | 4.3 | 0.1 | n/a | 0.2 | n/a | 1.9 | n/a | 18.1 | | 0.0 | 10.6 | 0.9 | | 0.5 | | 0.1 | | 1.6 |
| 5 | | 0.0 | 12.3 | 0.4 | | 2.3 | 3.2 | 0.3 | n/a | 0.2 | n/a | 0.5 | n/a | 27.3 | | 0.0 | | 0.2 | | 0.4 | | 0.1 | | 0.6 |
| 6 | 12.7 | 0.2 | | 0.3 | 4.0 | 1.2 | | 0.2 | n/a | 0.2 | n/a | 8.6 | n/a | 31.9 | | 0.0 | 16.9 | 0.5 | | 0.3 | | 0.1 | | 0.3 |
| 7 | | 0.1 | 6.2 | 0.2 | 7.5 | 1.0 | 9.1 | 0.3 | n/a | 0.2 | n/a | 1.3 | 1.6 | 11.7 | n/a | 0.0 | 54.0 | 24.7 | | 0.3 | | 0.0 | | 0.2 |
| 8 | | 0.0 | 29.7 | 8.9 | 4.6 | 0.7 | 15.5 | 0.5 | n/a | 0.1 | n/a | 0.6 | 47.5 | 12.6 | n/a | 0.0 | 89.5 | 43.4 | | 0.7 | 28.0 | 1.6 | | 0.1 |
| 9 | | 0.0 | | 2.7 | 37.0 | 2.4 | 0.5 | 0.1 | n/a | 0.2 | n/a | 33.0 | 52.9 | 59.0 | n/a | 0.0 | 107.5 | 64.3 | | 0.8 | 7.0 | 1.3 | | 0.1 |
| 10 | | 0.0 | 0.5 | 1.1 | 8.7 | 14.3 | 23.6 | 1.5 | n/a | 0.0 | n/a | 3.3 | | 6.3 | n/a | 0.0 | 114.9 | n/a | 4.9 | 0.8 | 1.1 | 1.3 | 1.6 | 0.1 |
| 11 | | 0.0 | | 0.6 | 4.6 | 2.4 | 11.3 | 4.5 | n/a | 0.0 | n/a | 1.3 | | 2.4 | n/a | 0.0 | | 7.7 | 9.2 | 1.2 | | 0.5 | 91.5 | n/a |
| 12 | | 0.0 | | 0.5 | | 1.3 | | 0.9 | n/a | 0.4 | n/a | 11.5 | | 1.5 | n/a | 0.0 | | 2.2 | | 1.3 | | 0.2 | | n/a |
| 13 | | 0.0 | | 0.3 | | 0.7 | 42.9 | 8.2 | n/a | 1.3 | n/a | 3.0 | | 1.1 | n/a | 0.1 | 0.5 | 1.1 | | 1.4 | | 0.1 | 5.9 | n/a |
| 14 | | 0.0 | | 0.2 | | 0.4 | 22.5 | 11.1 | n/a | 0.1 | n/a | 1.5 | | 1.1 | n/a | 0.0 | | 0.7 | | 1.2 | 33.4 | 2.4 | | n/a |
| 15 | 40.7 | 5.1 | | 0.2 | | 0.3 | 3.1 | 8.4 | n/a | 0.1 | n/a | 1.0 | | 0.5 | n/a | 0.0 | | 0.5 | 1.0 | 0.5 | 21.0 | 11.8 | | n/a |
| 16 | 3.7 | 1.6 | | 0.1 | 13.2 | 0.5 | 0.5 | 1.7 | n/a | 9.0 | n/a | 0.7 | 16.2 | 0.5 | n/a | 0.0 | 10.8 | 0.7 | 50.6 | 4.4 | 0.6 | 1.7 | | n/a |
| 17 | 0.5 | 0.6 | 12.9 | 0.1 | 1.1 | 0.6 | | 0.8 | n/a | 0.9 | n/a | 0.5 | 7.4 | 0.6 | n/a | 9.7 | 59.6 | 17.3 | 12.3 | 7.7 | 4.0 | 1.3 | | n/a |
| 18 | | 0.2 | 18.1 | 1.4 | 0.6 | 0.3 | | 0.5 | n/a | 0.3 | n/a | 0.3 | | 0.6 | n/a | 1.1 | 48.8 | 44.0 | 0.5 | 1.1 | 13.7 | 1.8 | | n/a |
| 19 | | 0.1 | 1.5 | 1.1 | 28.8 | 3.9 | | 0.3 | n/a | 0.4 | n/a | 0.6 | | 0.8 | n/a | 0.2 | 0.5 | 6.1 | | 0.5 | 8.0 | 3.2 | | n/a |
| 20 | | 0.1 | | 0.3 | 0.6 | 2.2 | 52.9 | 6.3 | n/a | 1.0 | n/a | 0.4 | | 0.9 | n/a | 0.1 | | 2.2 | | 0.3 | 2.2 | 1.1 | | n/a |
| 21 | 6.8 | 0.1 | | 0.2 | | 0.8 | 7.0 | 21.4 | n/a | 0.3 | n/a | 0.2 | | 1.2 | n/a | 0.1 | | 0.8 | | 0.3 | | 0.7 | | n/a |
| 22 | 14.1 | 1.5 | 9.1 | 0.3 | | 0.5 | 2.2 | 2.3 | n/a | 0.1 | n/a | 0.3 | | 0.6 | n/a | 0.1 | | 1.8 | | 0.2 | | 0.4 | | n/a |
| 23 | 7.3 | 2.6 | 30.2 | 5.1 | | 0.3 | | 1.2 | n/a | 0.2 | n/a | 0.6 | | 0.2 | n/a | 0.0 | | 2.3 | | 0.2 | 3.7 | 0.4 | 11.4 | n/a |
| 24 | | 0.7 | | 1.2 | | 0.2 | | 0.7 | n/a | 0.2 | n/a | 0.4 | | 0.3 | n/a | 0.0 | | 2.3 | | 0.3 | 3.2 | 0.6 | 7.0 | n/a |
| 25 | | 0.3 | | 0.6 | | 0.1 | | 0.5 | n/a | 0.3 | n/a | 0.3 | | 0.4 | n/a | 0.0 | 37.0 | 5.3 | | 0.4 | 38.8 | 8.9 | 1.3 | n/a |
| 26 | 4.2 | 0.3 | 40.1 | 3.5 | | 0.1 | | 0.4 | n/a | 0.3 | n/a | 0.3 | | 0.4 | n/a | 6.4 | 6.7 | 4.5 | | 0.3 | 19.7 | 13.4 | | n/a |
| 27 | 36.0 | 14.2 | | 4.1 | | 0.1 | | 0.3 | n/a | 0.2 | n/a | 0.5 | | 0.3 | n/a | 0.6 | 7.2 | 4.6 | | 0.3 | | 2.9 | | n/a |
| 28 | | 1.9 | | 1.0 | | 0.1 | | 0.6 | n/a | 0.0 | n/a | 0.3 | | 0.2 | n/a | 0.2 | | 1.3 | 9.7 | 1.0 | | 1.2 | | n/a |
| 29 | | 0.7 | | | 4.0 | 0.1 | | 0.5 | n/a | 2.8 | n/a | 0.4 | | 0.1 | n/a | 0.2 | | 0.7 | | 0.5 | | 0.7 | | n/a |
| 30 | 33.4 | 7.7 | | | | 0.1 | | 0.4 | n/a | 2.1 | n/a | 0.6 | | 0.0 | n/a | 0.3 | | 0.5 | | 0.1 | | 0.5 | | n/a |
| 31 | | 4.6 | | | | 0.1 | | | n/a | 0.4 | | | | 0.0 | n/a | 1.1 | | | | 0.1 | | | | n/a |
| total | 160.9 | 42.8 | 160.6 | 37.2 | 190.4 | n/a | 201.5 | 74.3 | n/a | 21.9 | n/a | 85.1 | n/a | 204.1 | n/a | 20.2 | n/a | n/a | 118.4 | 31.7 | 213.4 | 60.0 | 151.2 | n/a |

∗ Modifications are shown by shaded figures.

付表－27　新田の日降水量と袋山沢 B の日流出量（修正版）

**FUKUROYAMASAWA B　2015　unit: mm/day**　n/a : *data not available*　*annual precipitation at Shinta:* 2473.8　**annual runoff:** 1193.2

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | 0.4 | | 2.2 | 40.1 | 37.4 | 2.9 | 0.5 | n/a | 0.3 | n/a | 0.4 | n/a | 0.9 | | 0.1 | n/a | 0.5 | 17.3 | 1.2 | | 0.2 | | 0.7 |
| 2 | 1.0 | 0.4 | | 1.3 | 0.8 | 13.0 | | 0.4 | n/a | 0.3 | n/a | 0.3 | n/a | 1.3 | | 0.1 | n/a | 0.9 | 12.9 | 4.0 | 29.0 | 2.2 | 5.9 | 0.6 |
| 3 | | 0.3 | | 0.9 | 0.8 | 2.8 | | 0.3 | n/a | 0.2 | n/a | 11.1 | n/a | 22.0 | | 0.1 | n/a | 0.6 | | 1.8 | | 0.8 | 26.6 | 6.5 |
| 4 | | 0.3 | | 0.7 | 34.0 | 9.0 | 4.3 | 0.3 | n/a | 0.2 | n/a | 3.2 | n/a | 19.6 | | 0.0 | 10.6 | 1.0 | | 1.1 | | 0.4 | | 2.9 |
| 5 | | 0.3 | 12.3 | 0.9 | | 3.0 | 3.2 | 0.3 | n/a | 0.3 | n/a | 1.2 | n/a | 26.4 | | 0.0 | | 0.5 | | 0.7 | | 0.4 | | 1.4 |
| 6 | 12.7 | 0.6 | | 0.9 | 4.0 | 1.6 | | 0.3 | n/a | 0.2 | n/a | 10.0 | n/a | 29.5 | | 0.0 | 16.9 | 0.5 | | 0.6 | | 0.4 | | 0.9 |
| 7 | | 0.6 | 6.2 | 0.7 | 7.5 | 1.4 | 9.1 | 0.4 | n/a | 0.2 | n/a | 2.2 | 1.6 | 10.7 | n/a | 0.0 | 54.0 | 25.5 | | 0.5 | | 0.3 | | 0.7 |
| 8 | | 0.4 | 29.7 | 10.8 | 4.6 | 1.3 | 15.5 | 1.0 | n/a | 0.2 | n/a | 1.1 | 47.5 | 10.9 | n/a | 0.0 | 89.5 | 41.5 | | 0.4 | 28.0 | 2.1 | | 0.6 |
| 9 | | 0.3 | | 4.7 | 37.0 | 3.1 | 0.5 | 0.6 | n/a | 0.3 | n/a | 30.0 | 52.9 | 49.5 | n/a | 0.0 | 107.5 | 56.6 | | 0.3 | 7.0 | 2.3 | | 0.5 |
| 10 | | 0.3 | 0.5 | 1.8 | 8.7 | 16.6 | 23.6 | 1.5 | n/a | 0.3 | n/a | 3.7 | | 6.5 | n/a | 0.2 | 114.9 | 109.7 | 4.9 | 0.4 | 1.1 | 1.6 | 1.6 | 0.5 |
| 11 | | 0.3 | | 1.2 | 4.6 | 3.5 | 11.3 | 7.1 | n/a | 0.3 | n/a | 1.6 | | 2.6 | n/a | 0.0 | | 7.2 | 9.2 | 0.5 | | 1.0 | 91.5 | 45.9 |
| 12 | | 0.2 | | 0.9 | | 1.9 | | 2.0 | n/a | 0.5 | n/a | 11.2 | | 1.5 | n/a | 0.0 | | 2.3 | | 0.3 | | 0.6 | | 4.4 |
| 13 | | 0.2 | | 0.7 | | 1.3 | 42.9 | 9.0 | n/a | 1.4 | n/a | 3.7 | | 1.1 | n/a | 0.0 | 0.5 | 1.3 | | 0.3 | | 0.5 | 5.9 | 2.1 |
| 14 | | 0.2 | | 0.6 | | 0.9 | 22.5 | 13.9 | n/a | 0.2 | n/a | 1.7 | | 0.7 | n/a | 0.1 | | 1.0 | | 0.2 | 33.4 | 2.6 | | 1.4 |
| 15 | 40.7 | 6.9 | | 0.5 | | 0.7 | 3.1 | 10.5 | n/a | 0.2 | n/a | 1.1 | | 0.6 | n/a | 0.0 | | 0.9 | 1.0 | 0.2 | 21.0 | 15.5 | | 1.1 |
| 16 | 3.7 | 3.6 | | 0.4 | 13.2 | 0.8 | 0.5 | 2.7 | n/a | 9.0 | n/a | 0.8 | 16.2 | 0.7 | n/a | 0.0 | 10.8 | 0.8 | 50.6 | 5.2 | 0.6 | 3.1 | | 0.9 |
| 17 | 0.5 | 1.7 | 12.9 | 0.5 | 1.1 | 1.1 | | 1.4 | n/a | 1.6 | n/a | 0.6 | 7.4 | 0.6 | n/a | 9.6 | 59.6 | 17.2 | 12.3 | 10.8 | 4.0 | 1.6 | | 0.8 |
| 18 | | 1.0 | 18.1 | 2.0 | 0.6 | 0.7 | | 0.9 | n/a | 0.7 | n/a | 0.5 | | 0.5 | n/a | 2.0 | 48.8 | 40.1 | 0.5 | 2.5 | 13.7 | 1.7 | | 0.5 |
| 19 | | 0.8 | 1.5 | 2.5 | 28.8 | 4.9 | | 0.7 | n/a | 0.5 | n/a | 0.7 | | 0.4 | n/a | 0.4 | 0.5 | 6.1 | | 1.2 | 8.0 | 5.1 | | 0.4 |
| 20 | | 0.6 | | 1.1 | 0.6 | 4.1 | 52.9 | 5.5 | n/a | 1.3 | n/a | 0.7 | | 0.3 | n/a | 0.3 | | 2.5 | | 0.8 | 2.2 | 2.4 | | 0.3 |
| 21 | 6.8 | 0.6 | | 0.8 | | 1.7 | 7.0 | 19.8 | n/a | 0.7 | n/a | 0.4 | | 0.3 | n/a | 0.2 | | 1.4 | | 0.6 | | 1.4 | | 0.6 |
| 22 | 14.1 | 2.1 | 9.1 | 0.8 | | 1.2 | 2.2 | 2.7 | n/a | 0.6 | n/a | 0.4 | | 0.2 | n/a | 0.1 | | 1.0 | | 0.5 | | 1.0 | | 1.3 |
| 23 | 7.3 | 4.0 | 30.2 | 6.7 | | 0.8 | | 1.4 | n/a | 0.3 | n/a | 0.3 | | 0.2 | n/a | 0.1 | | 0.8 | | 0.4 | 3.7 | 0.8 | 11.4 | 1.4 |
| 24 | | 1.7 | | 2.2 | | 0.6 | | 1.0 | n/a | 0.3 | n/a | 0.2 | | 0.2 | n/a | 0.1 | | 0.6 | | 0.4 | 3.2 | 0.8 | 7.0 | 1.6 |
| 25 | | 1.1 | | 1.3 | | 0.5 | | 0.7 | n/a | 0.3 | n/a | 0.2 | | 0.2 | n/a | 0.1 | 37.0 | 3.2 | | 0.3 | 38.8 | 10.7 | 1.3 | 1.0 |
| 26 | 4.2 | 0.9 | 40.1 | 3.8 | | 0.4 | | 0.6 | n/a | 0.3 | n/a | 0.2 | | 0.1 | n/a | 6.1 | 6.7 | 3.7 | | 0.3 | 19.7 | 16.3 | | 0.7 |
| 27 | 36.0 | 16.5 | | 5.7 | | 0.4 | | 0.7 | n/a | 0.2 | n/a | 0.3 | | 0.2 | n/a | 0.9 | 7.2 | 3.5 | | 0.3 | | 3.9 | | 0.6 |
| 28 | | 3.3 | | 1.9 | | 0.4 | | 0.4 | n/a | 0.2 | n/a | 0.1 | | 0.2 | n/a | 0.4 | | 2.5 | 9.7 | 0.4 | | 1.8 | | 0.5 |
| 29 | | 1.6 | | | 4.0 | 0.5 | | 0.4 | n/a | 2.3 | n/a | 0.2 | | 0.1 | n/a | 0.3 | | 1.4 | | 0.3 | | 1.2 | | 0.5 |
| 30 | 33.4 | 8.3 | | | | 0.4 | | 0.4 | n/a | 3.2 | n/a | 0.2 | | 0.1 | n/a | 0.3 | | 0.9 | | 0.2 | | 0.8 | | 0.5 |
| 31 | | 6.4 | | | | 0.4 | | | n/a | 0.8 | | | | 0.2 | n/a | 1.1 | | | | 0.2 | | | | 0.5 |
| total | 160.9 | 65.9 | 160.6 | 58.5 | 190.4 | 116.4 | 201.5 | 87.4 | n/a | 27.4 | n/a | 88.3 | n/a | 188.3 | n/a | 22.6 | n/a | 335.7 | 118.4 | 36.9 | 213.4 | 83.5 | 151.2 | 82.3 |

＊Modifications are shown by shaded figures.

付表－28　新田の日降水量と袋山沢 C の日流出量（修正版）

**FUKUROYAMASAWA C　2015　unit: mm/day**　　*annual precipitation at Shinta:* 2473.8　**annual runoff:** n/a

| | January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| day | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff | rain | runoff |
| 1 | 0.5 | n/a | | n/a | 40.1 | n/a | 2.9 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 17.3 | n/a | | n/a | | n/a |
| 2 | 1.0 | n/a | | n/a | 0.8 | n/a | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 12.9 | n/a | 29.0 | n/a | 5.9 | n/a |
| 3 | | n/a | | n/a | 0.8 | n/a | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | 26.6 | n/a |
| 4 | | n/a | | n/a | 34.0 | n/a | 4.3 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | 10.6 | n/a | | n/a | | n/a | | n/a |
| 5 | | n/a | 12.3 | n/a | | n/a | 3.2 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a | | n/a |
| 6 | 12.7 | n/a | | n/a | 4.0 | n/a | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | | n/a | 16.9 | n/a | | n/a | | n/a | | n/a |
| 7 | | n/a | 6.2 | n/a | 7.5 | n/a | 9.1 | n/a | n/a | n/a | n/a | n/a | 1.6 | n/a | n/a | n/a | 54.0 | n/a | | n/a | | n/a | | n/a |
| 8 | | n/a | 29.7 | n/a | 4.6 | n/a | 15.5 | n/a | n/a | n/a | n/a | n/a | 47.5 | n/a | n/a | n/a | 89.5 | n/a | | n/a | 28.0 | n/a | | n/a |
| 9 | | n/a | | n/a | 37.0 | n/a | 0.5 | n/a | n/a | n/a | n/a | n/a | 52.9 | n/a | n/a | n/a | 107.5 | n/a | | n/a | 7.0 | n/a | | n/a |
| 10 | | n/a | 0.5 | n/a | 8.7 | n/a | 23.6 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 114.9 | n/a | 4.9 | n/a | 1.1 | n/a | 1.6 | n/a |
| 11 | | n/a | | n/a | 4.6 | n/a | 11.3 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | 9.2 | n/a | | n/a | 91.5 | n/a |
| 12 | | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a |
| 13 | | n/a | | n/a | | n/a | 42.9 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 0.5 | n/a | | n/a | | n/a | 5.9 | n/a |
| 14 | | n/a | | n/a | | n/a | 22.5 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | 33.4 | n/a | | n/a |
| 15 | 40.7 | n/a | | n/a | | n/a | 3.1 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | 1.0 | n/a | 21.0 | n/a | | n/a |
| 16 | 3.7 | n/a | | n/a | 13.2 | n/a | 0.5 | n/a | n/a | n/a | n/a | n/a | 16.2 | n/a | n/a | n/a | 10.8 | n/a | 50.6 | n/a | 0.6 | n/a | | n/a |
| 17 | 0.5 | n/a | 12.9 | n/a | 1.1 | n/a | | n/a | n/a | n/a | n/a | n/a | 7.4 | n/a | n/a | n/a | 59.6 | n/a | 12.3 | n/a | 4.0 | n/a | | n/a |
| 18 | | n/a | 18.1 | n/a | 0.6 | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 48.8 | n/a | 0.5 | n/a | 13.7 | n/a | | n/a |
| 19 | | n/a | 1.5 | n/a | 28.8 | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 0.5 | n/a | | n/a | 8.0 | n/a | | n/a |
| 20 | | n/a | | n/a | 0.6 | n/a | 52.9 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | 2.2 | n/a | | n/a |
| 21 | 6.8 | n/a | | n/a | | n/a | 7.0 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a |
| 22 | 14.1 | n/a | 9.1 | n/a | | n/a | 2.2 | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a |
| 23 | 7.3 | n/a | 30.2 | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | 3.7 | n/a | 11.4 | n/a |
| 24 | | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | 3.2 | n/a | 7.0 | n/a |
| 25 | | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 37.0 | n/a | | n/a | 38.8 | n/a | 1.3 | n/a |
| 26 | 4.2 | n/a | 40.1 | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 6.7 | n/a | | n/a | 19.7 | n/a | | n/a |
| 27 | 36.0 | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | 7.2 | n/a | | n/a | | n/a | | n/a |
| 28 | | n/a | | n/a | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | 9.7 | n/a | | n/a | | n/a |
| 29 | | n/a | | | 4.0 | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a |
| 30 | 33.4 | n/a | | | | n/a | | n/a | n/a | n/a | n/a | n/a | | n/a | n/a | n/a | | n/a | | n/a | | n/a | | n/a |
| 31 | | n/a | | | | n/a | | | n/a | n/a | | | | n/a | n/a | n/a | | | | n/a | | | | n/a |
| total | 160.9 | n/a | 160.6 | n/a | 190.4 | n/a | 201.5 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 118.4 | n/a | 213.4 | n/a | 151.2 | n/a |

＊Modifications are shown by shaded figures.

付表－29　加納の降水水質（修正版）

**KANOU**　　**2015**

| 2015 | 採水期間 | サンプル個数 | 降水量 (mm) | pH | EC (μS/cm) | $Na^+$ (mg/L) | $K^+$ (mg/L) | $Mg^{2+}$ (mg/L) | $Ca^{2+}$ (mg/L) | $NH_4^+$ (mg/L) | $Cl^-$ (mg/L) | $NO_3^-$ (mg/L) | $SO_4^{2-}$ (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2014/12/17～2015/1/16 | 4 | 110.8 | | | 2.95 | 0.37 | 0.74 | 0.51 | 0.48 | 9.02 | 0.67 | 3.37 |
| 2 | 2015/1/16～2015/2/18 | 8 | 100.0 | | | 0.41 | 0.06 | 0.20 | 0.43 | 0.19 | 1.56 | 0.58 | 1.42 |
| 3 | 2015/2/18～2015/3/17 | 8 | 209.4 | | | 0.99 | 0.18 | 0.35 | 0.52 | 0.29 | 3.32 | 0.32 | 1.51 |
| 4 | 2015/3/17～2015/4/21 | | | | | | | | | | | | |
| 5 | 2015/4/21～2015/5/19 | 5 | 107.0 | | | 1.47 | 0.21 | 0.51 | 0.78 | 0.33 | 5.04 | 0.69 | 2.44 |
| 6 | 2015/5/19～2015/6/17 | | | | | | | | | | | | |
| 7 | 2015/6/17～2015/7/21 | | | | | | | | | | | | |
| 8 | 2015/7/21～2015/8/18 | 2 | 114.3 | | | 0.62 | 0.10 | 0.15 | 0.17 | 0.19 | 2.03 | 0.38 | 0.71 |
| 9 | 2015/8/18～2015/9/10 | | | | | | | | | | | | |
| 10 | 2015/9/10～2015/10/19 | 5 | 149.6 | | | 0.78 | 0.33 | 0.25 | 0.41 | 0.26 | 2.73 | 0.75 | 1.30 |
| 11 | 2015/10/19～2015/11/18 | 7 | 151.2 | | | 0.71 | 0.54 | 0.28 | 0.73 | 0.59 | 1.87 | 0.72 | 0.99 |
| 12 | 2015/11/18～2015/12/16 | 8 | 161.1 | | | 1.15 | 0.25 | 0.33 | 0.51 | 0.17 | 3.61 | 0.40 | 0.98 |

Note: blank cell is no data (water was not sampled or not measured /analysed)
＊Modifications are shown by shaded figures.