The Role of Land Stewardship and Sedimentation Management in the Upper Wascana Creek Watershed

in the Long-term Maintenance of the Saskatchewan Capital Region and Preservation of Existing Wascana Lake Functions

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A Practicum
Submitted to the Faculty of Graduate Studies
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THE ROLE OF LAND STEWARDSHIP AND SEDIMENTATION MANAGEMENT IN THE UPPER WASCANA CREEK WATERSHED IN THE LONG-TERM MAINTENANCE OF THE SASKATCHEWAN CAPITAL REGION AND PRESESRVATION OF EXISTING WASCANA LAKE FUNCTIONS

by

NEAL A. STONE

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University

of Manitoba in partial fulfillment of the requirements of the degree

MASTER of CITY PLANNING

To my Grandma Lil

who patiently and warmly encouraged
the sharing of knowledge -
one of the greatest gifts we can give
to each other.

God bless.

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Abstract

The Upper Wascana Creek Watershed is the drainage basin southeast of Regina, the Capital City of the Province of Saskatchewan. A result of damming Wascana Creek in the centre of the Prairies for irrigation, Wascana Lake has become the centrepiece of many permanent government, education, health care and recreation functions that make a sizable contribution to the Regina economy and quality of life for residents and visitors from the rest of the province.

Wascana Lake is affected by agricultural activities in the watershed which increase the rate of sediment deposition in the reservoir. The sedimentation process is jeopardizing the very existance of the lake and the beauty of a setting which is home to the Legislative Assembly and many other provincial services of the capital region. As a result, the lake will likely need to be deepened each time it fills with sediment - a very expensive procedure, however it is undertaken.

Agricultural practices, crop rotations, and farm management procedures have improved in recent years, but in several areas soil loss still exceeds soil regeneration as a result of farming. In the Upper Wascana Creek Watershed, non-sustainable farming has resulted in a high sediment load in the watercourse that is expediting the infill process of Wascana Lake.

In this study, erosion risk maps were created using the Universal Soil Loss Equation in a geographical information system. This has enabled high risk soil loss areas to be identified so that appropriate restorative measures can be implemented to reduce erosion. The study explores:

1. environmental ramifications of soil conservation measures on the watershed,
2. economic implications of implementing a watershed management plan, and
3. identification of a process and stakeholders needed to implement the changes.

Through this stewardship process and construction of a watershed management plan, governmental and non-governmental organizations can work together to improve land management and reduce sediment loading in the Upper Wascana Creek Watershed.

Acknowledgments

This project was made possible by the generous efforts and kind support of many individuals, associations, and institutions. Without the help of all of them, the project would not have realized its completion and would have fallen short of its potential. Although many undoubtedly will not be named, I would personally like to acknowledge the contributions of the following and thank them for their help.

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In light of the limited capacity to support external research in these tough financial times, I would like to express my gratitude to the many individuals within the Wascana Centre Authority, SaskWater, Saskatchewan Environment & Resource Management Policy and Planning Division, PFRA Regina Library, U of Regina Department of Geography, U of Manitoba Library Staff, Saskatchewan Department of Agriculture, Semiarid Prairie Agricultural Research Centre (U of Saskatchewan), Canadian Wheat Board (Winnipeg), Saskatchewan Property Management Corporation, Manitoba Natural Resources, and Ducks Unlimited who shared their time, information and expertise on this project.

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Neal Anthony Stone
Principle Researcher

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1.0 INTRODUCTION

The prairie ecosystem is a unique set of delicate interrelationships between flora and fauna which is extremely adaptable under adverse weather conditions and human intervention. Every natural system has its thresholds where the resilience of native habitat and natural process become jeopardized and a marked, often irreparable change results.

In the period of the 1880's through the turn of the century, the Canadian Prairies clearly saw the most sudden and dynamic human-induced change to the Great Plains landscape in history. The natural prairie grassland became a phenomenon of the past and millions of acres of land were broken and tilled for crop production. Herds of bison which had once freely roamed across fields of tall grasses would have been pushed to extinction, had it not been for the creation of game refuges to harbour the large animals. Buggy trails soon became roads along the section/township grid, and tree groves were cleared from the quarter sections en masse to increase the crop volumes from high yielding production plots. The Prairies began to see a transformation unmatched anywhere else in the world, in the name of growth, human spirit, economic prosperity, and a better life for the pioneers.

Over the last one hundred and twenty-five years, farming and development have generated a loss of millions of tonnes of fertile soil due to wind and water elements by exposing and not replenishing nutrients and organic material in the delicate *Ah* (topsoil) layer (Cameron et al., 1992). The continuum of current agriculture and land development practices will result in an increasing rate of irreparable damage to a soil layer only 5-15 centimetres deep and one of the most fertile grain-producing areas in the world.

The high volumes of sediment in agricultural waterways are indicative of non-sustainable farming and development practices in the upper watershed which affect downstream functions. Downstream water bodies often become sediment traps which are shallow and oxygen deficient due to intense micro-organism activity; this in turn threatens aquatic habitat and water supply for other water uses. Water quantity and quality are both jeoparized. Without management and surveillance, human-made or natural water bodies on the Prairies face this fate unless development controls and watershed stewardship initiatives are supervised and funded through partnerships between governmental and non-governmental organizations. The joint benefits to the farming industry, wetland/aquatic habitat, and people using the water bodies for recreation, are economic, environmental and social - in a bio-region which relies so heavily upon the success of agriculture.

1.1 PROJECT PURPOSE AND OBJECTIVES

Wascana Lake is a human-constructed reservoir which is slowly finding its ecological equilibrium. Because a characteristic problem in reservoirs like Wascana Lake is sedimentation from agricultural run-off in the upper watershed (Troeh et al., 1991), inaction will result in the Wascana reservoir no longer existing as a lake.

Although manicured landscapes surround the lake, problems such as weed infestation, foul odours, diminished water supply, and degradation of a unique urban aquatic and wetland habitat will persist as the infill process continues. If left unaddressed, this process will result in a significant change in the reservoir's ecological and recreational roles (Waite, 1992).

Any alteration of current conditions in the lake (whether through lake deepening or sediment reduction), will require financing. Whether an investment in reparative measures occurs now or in the future may be critical to how much might be saved over the long-term (Leavitt, 1997). Traditional sources of funding such as government at both the provincial and municipal levels are minimal and alternative ways of supporting these initiatives need to be explored. The effectiveness of existing organizations may be under-estimated, and a re-definition of parameters for some assistance programs may prove to be more cost-effective than creating new ones (Archer, 1996).

Wascana Lake is a vital component of the Saskatchewan Capital Region, a cultural centre, and an urban ecosystem in the City of Regina. It is necessary to identify the relevant issues and feasibility of possible solutions in both the urban and rural contexts, before a detailed management plan can be phased in over a period of time that can involve and be supported by a variety of local stakeholders representing both immediate and upstream areas of the Wascana watershed (Hutchison, 1996).

Given the parameters of the research problem, the research objectives for this project are as follows:

1. Identify a feasible strategy for maintaining Wascana Lake so as to sustain aquatic habitat, maintain recreation, accommodate irrigation and drainage, and do so at a reasonable cost.

2. Propose the establishment of a system for the substantial reduction of sediment deposition in Wascana Lake from upstream agricultural land drainage sources.

3. Explore the funding potential for the mobilization of this initiative.

4. Encourage community, governmental and corporate stakeholders to work together in contributing to long-term solutions.

1.2 RATIONALE FOR RESEARCH

Wascana Centre was established through an act of the Saskatchewan Legislature over three decades ago as a locus for education, governance, recreation, culture and health care for the City of Regina and the Province of Saskatchewan. It was established around an old stockwatering pond which was dredged to create a lake where previously, only a Prairie stream had existed. Today, Wascana Lake is slowly changing from its original design as an urban lake into a system of natural urban wetlands, leaving the Wascana Centre Authority and SaskWater with the challenge of maintaining a pristine urban greenspace and accompanying functions.

The depth of Wascana Lake is at a critical level (an average of 0.5 metres deep) and beckons a sense of urgency to prevent further depth reduction. At depths less than this, weed growth becomes widespread across the lake, foul odours emanate from the intense biological activity in the water, activities such as boating and sailing are no longer possible, and the attractiveness of the lake setting is visually diminished. The Wascana Centre Authority and SaskWater are considering alternatives for managing the lake - including deepening the reservoir, raising the shores of the lake, weed treatment and improvements to water quality (WCA Lake Management Plan, 1996).

A major cause of the current problem is the large amount of sediment and suspended solids currently being transported into the lake from the upper watershed (Grigg, 1997). It is safe to assume that a complete prevention of sedimentation in the lake would not be possible, unless extreme technological measures were undertaken. Erosion is a process which occurs naturally in a riparian system due to the movement of water over the land surface (Hudson, 1995). But data accumulated from many case studies indicate that the effects of cultivating fallow, furrowing with the slope of the land, tilling to the edge of the fields, channelization of drainage corridors, and the introduction of development to previously agricultural regions, result in changes to the soil characteristics and increased sediment transport by surface flows (PFRA, 1983).

An ecological contribution to a solution which addresses sediment loading from the upper watershed over a long-term period should be pursued. Given the associated costs of many of the technical alternatives (lake deepening, shore raising, weed removal, chemical use, etc.), a less expensive initiative which addresses the problem at its source, should be considered an opportunity cost and contribution to the health of both Wascana Centre and upstream agricultural areas. It is the intent of this project to see how an environmental planning approach can be accomplished at a reasonable expense compared to some of the other proposed technical measures.

2.0 BACKGROUND

2.1 HISTORY

The settling of the West in the mid-1800's brought with it the many challenges and hardships of learning how to live in a hostile unsettled land. As the railway moved west from Manitoba, pioneers changed the land from a natural prairie grassland to cultivated soil. Over time, Saskatchewan became the breadbasket of the world at the expense of much of the native habitat and vegetation, and Regina became the urban centre for trade, commerce and governance in the midst of the agricultural activity. Today, the city continues to wrestle with its physical relationship to the neighbouring rural surroundings. One of the current problems is reconciling the need to maintain a pristine aesthetic within the provincial capital surrounded by the functions of the agricultural heartland.

2.1.1 <u>The Need for Water</u>

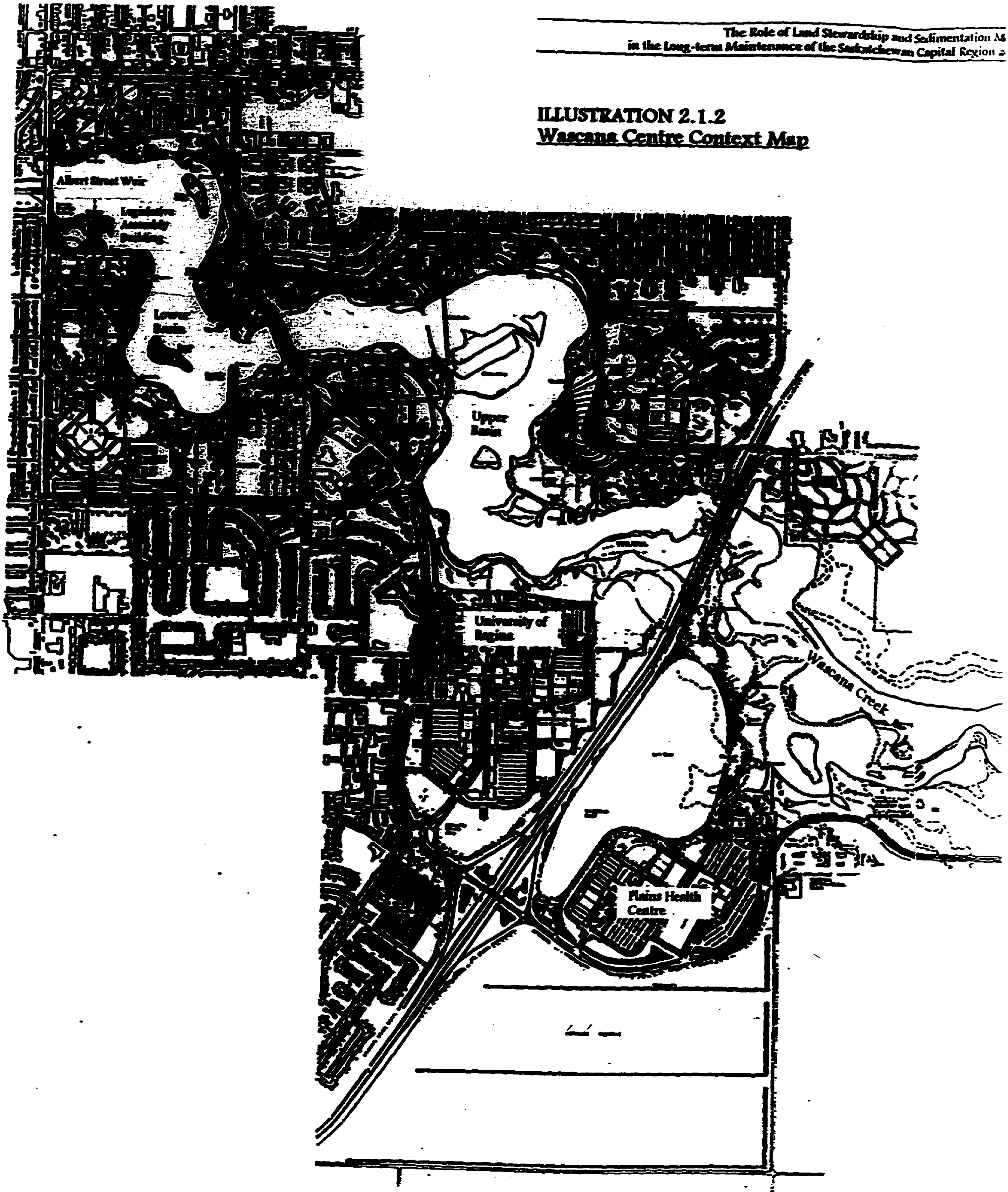
Formative development of Wascana Park and primary excavation of the lake were initiated by the provincial government to provide irrigation and stock watering as the local facilities and population of Regina continued to grow. In the 1880's, there were only one or two wells in the new capital city, making the supply of water very limited. The CPR and Federal Government combined resources in 1898, to build an earth dam across Wascana Creek just west of the present Albert Street bridge sluice. A reservoir initially covering 65 hectares and averaging 1.5 metres deep was created under the Northwest Irrigation Act. The primary function of the reservoir was livestock watering, although it was a suitable water body for recreational sailing by some citizens as well (Riddell, 1994).

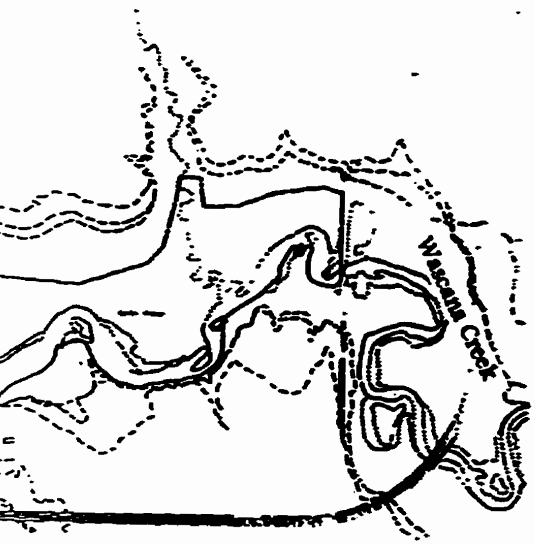
2.1.2 Wascana Lake Construction

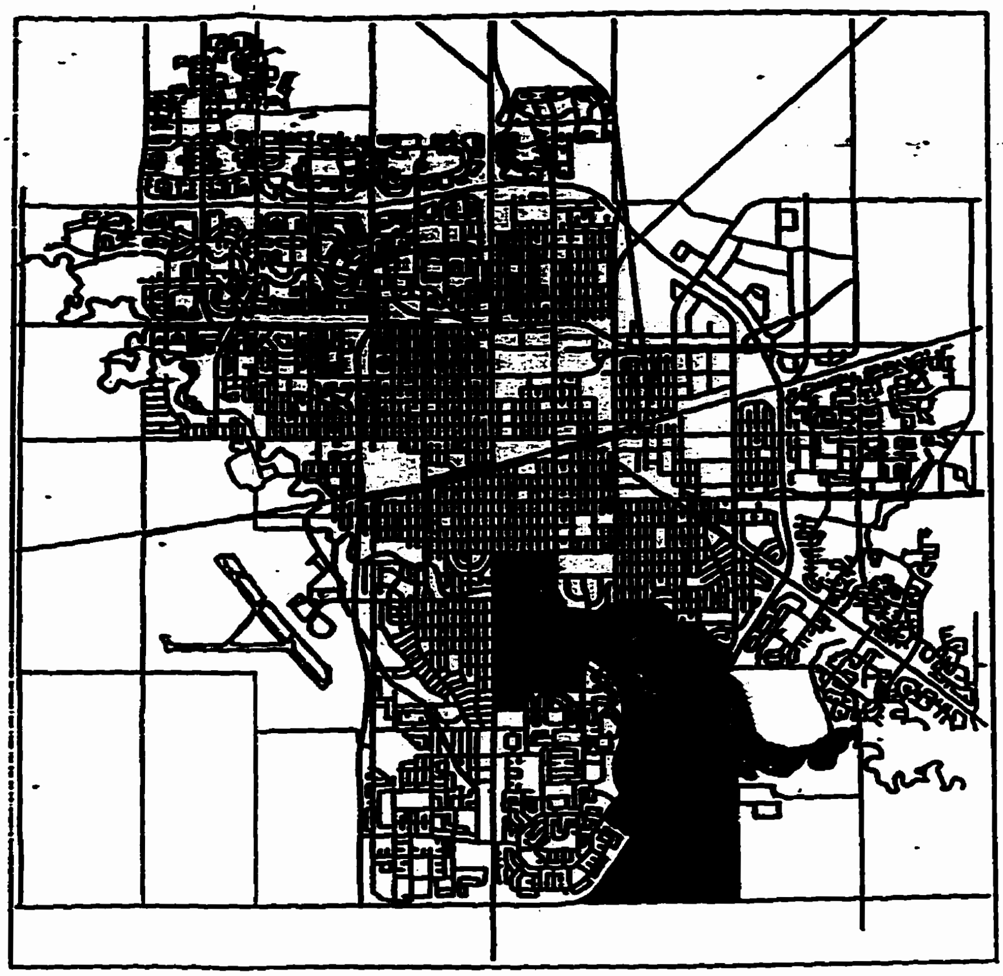
The small stock watering pond south of downtown Regina gained significance when the Province of Saskatchewan was created from the Assiniboia District of the North-West Territories in 1905. A new provincial Legislative Assembly Building was constructed on the 68 hectare Sinton property on the south side of the lake to succeed the old Territorial Buildings that were present, and tree planting elements were added from Montreal Landscape Architect Frederick Todd's plans for the new Saskatchewan Capital region. During the Great Depression, the major undertaking of draining the existing reservoir and excavating it was undertaken as a relief project by the three levels of government via the 1931 Employment and Farm Relief Act at a cost of $103,000 (Riddell, 1994).

In the years which followed, city, provincial and university lands which formed Wascana Park became home to a diverse array of functions including a natural history museum, performing arts centre, technical school and university, government offices, health care facilities, bird sanctuary, and urban green space - all are present around the lake today (WCA Master Plan, 1992). The map on the following page illustrates the context of Wascana Centre in present-day Regina.

ILLUSTRATION 2.1.2
Wascana Centre Context Map







Wascana Centre in the City of Regina

2.1.3 Creation of the Wascana Centre Authority

The development of property surrounding the lake created a need for a management strategy and administrative body to coordinate and supervise the growth of provincial, municipal and University of Regina facilities in 1960. Prior to this date, several contributions had been made to the planning process by Frederick Todd (1907), Thomas Mawson (1913), and Shore & Moffat (1960). Through the efforts of A.W. Johnson, deputy Provincial Treasurer, the concept of creating an organizational structure and centre around the lake governed by a master plan, led to the passing of the Wascana Centre Act on April 1, 1962. Following the incorporation of the Authority represented by the City of Regina, Provincial Government and the university on a Board of Directors, Minoru Yamasaki, a city planner from Birmingham, Michigan, and Thomas D. Church, a landscape architect from San Francisco, were selected to create a new master plan for the Wascana Centre development (Riddell, 1994). The Regina Leader-Post published the guiding Yamasaki/Church vision of future development prospects as outlined here:

> [The plan] calls for both shores of Wascana Lake from Albert Street to the No.1 highway by-pass east of Regina to be developed into parkland sanctuary for government, culture, tourist and birds.
>
> The development will include:
>
> - The grounds on which the government buildings are now located, where more offices are planned and more park development is foreseen:
> - The south side of College Avenue from Albert Street to Broad Street where a Regina civic centre and an open air theatre by the lake shore may be added to the buildings already there:
> - The proposed campus of the Regina branch of the University of Saskatchewan, located between Hillsdale and the by-pass:
> - A sports area in Douglas park, on the north side of Wascana Lake across from the university. There are already playing fields in Douglas Park owned by the city: "The secret of the success of this centre is going to be its location," said Mr. Yamasaki. "It is in the heart of the city."

Building on the Yamasaki/Church Plan, a series of master plans were incorporated every five years to keep the development of Wascana Centre current and relevant. Architect-planners such as Jack Long of Calgary, Roger duToit of Toronto (duToit Allsop Hillier), and most recently, the Wascana Centre Authority have contributed to the evolution of the Centre and its present design form (Riddell, 1994). The next master plan review is slated to take place in 1999.

The Wascana Centre Act guides the structural and landscape development per the active master plan, which acts as the coordinating mechanism of the existing park features and intended design and policy development directives (Paterson, 1996). The main body of any plan is based upon a long range planning horizon where planning principles and general development intentions are extended to a vision of an ideal outcome. Participating parties and the general public are invited to contribute comments and suggestions in the participation process.

The Wascana Centre Authority has recently endeavored to devise a lake management plan to address the problem of sedimentation and infill of the lake (WCA Lake Management Plan, 1996). In September, 1996, public input meetings were held at Wascana Centre to receive input in a forum setting to supplement submitted questionnaires and briefs. Nine issues were identified as currently relevant to the health of Wascana Lake, though the primary concern is with the portion of the lake known as the West Lake (or lower basin). The issue categories were identified as listed in Table 2.1.2 (next page):

TABLE 2.1.3
PUBLIC ISSUE IDENTIFICATION
FOR WASCANA LAKE MANAGEMENT PLAN*
(WCA Lake Management Plan, 1996)

1.	Water Quality and Weed Control
2.	Aesthetics and Lifestyle
3.	Recreation Opportunities
4.	Wildlife Habitat/Conservation Area
5.	Educational Resources
6.	Eco-tourism
7.	Upstream and Downstream - Landowners/Users
8.	Shoreline Maintenance
9.	Ecosystem Context - holistic development

* from September 10, 1996 meeting

Under the heading of Water Quality, the questions of upstream sediment sources, upstream influences on water quality (whether agricultural or other), and possible corrective measures were asked. The subsequent questions relating to other issues were in many cases inevitably dependent upon how the question of sedimentation and lake depth would be addressed in the future. A more detailed account of the issues and questions raised, is included in Appendix 8.2.1.

2.2 URBAN FUNCTIONS, LAKE USE and MANAGEMENT

Lakes, creeks and streams have often been important constituents in the location of settlements on the Prairies. The water source in a dry climate, the wetlands and corresponding habitat for food, and the accompanying riparian vegetation providing shelter from the flat, open plains were attractive for settlement (PFRA, 1987). Today, urban areas rely upon waterfronts for the following reasons:

1. Irrigation
2. Water sources for habitat
3. Storage of treated wastewaters and urban drainage
4. Recreation - (boating, shoreline parks, swimming, and nature appreciation).

Waterfronts are vital places to urban well-being that draw people, fascinate them, satisfy their deep human need for contact with water and wildlife, and provides a constantly changing panorama of views, weather, and moods. Shorelines offer a sense of natural beauty in our towns and cities where living conditions can be squalid and congested (Royal Commission on the Future of the Toronto Waterfront, 1992).

In terms of ecosystems, cities must continue to try to improve their built-in mechanisms for long-term sustainability so as to reduce their dependency on their hinterlands for survival (Georgia Basin Initiative, 1995). United Nation's figures indicate that the majority of the world population now lives in urban areas which continue to grow yearly. This trend will have profound environmental and social repercussions unless ecological design is made an integral part of city design and development (Gordon, 1990). Wascana Centre presently provides the City of Regina with an extensive array of activities which require extensive cooperation between several stakeholders in administering problem solving maneuvers and managing of this valuable public urban greenspace. Whether these stakeholders make ecologically sound *management* decisions for future development depends upon the information which they have at their disposal through the environmental planning process and how various functions relate to each other.

2.2.1 Irrigation

Irrigation is an important function of Wascana Lake in helping to sustain the aesthetic qualities of Wascana Centre, as well as the Legislative Grounds, Goose Hill Park and Douglas Park. The University of Regina and Wascana East currently use municipal water for irrigation, though the university currently pays full price to the City and opts for a less than ideal landscape quality to avoid full irrigation costs (Pentland, 1991). If less expensive water was available from Wascana Lake, it is estimated that current use would be only 60 percent of the total volume which would be likely be used.

Water levels in the lake are dependent upon spring snowmelt and rainfall runoff; in dry seasons this is insufficient to meet irrigation needs. Subsequently, water rationing can lead to an expensive degradation of landscapes (Dockam, 1997). Increasing the volume of water available for irrigation is an alternative being investigated by SaskWater with the hypothesis being that higher lake levels will increase storage capacity and provide additional recreational benefits. The gains however, will likely continue to be countered by diminishing lake capacity due to gradual and constant sedimentation (Collins, 1996).

Currently, the irrigated surface area east of the Albert Street weir is about 260 hectares (ha) of land with a potential expansion of area to 384 ha (as shown on Table 2.2.1). The total water demand is 974 dam^3 which could increase by 160 dam^3 if the university and Wascana East were added. In addition, proposals for the development of parks and golf courses could increase the demand to 1,719 dam^3 without conservation measures, an increase of over 170% (Pentland, 1991). Clearly, there is a need to maintain this water resource and ensure that existing volumes are maintained at no less than current levels.

TABLE 2.2.1
IRRIGATED AREAS AROUND WASCANA LAKE
(Pentland, 1991)

LOCATION	PRESENT AREA (ha)	FUTURE AREA (ha)
Wascana Country Club	30	61
Riverside Memorial Cemetery	40	57
Plains Health Centre & SIAST (City Water)	4	30
U of R Main Campus (City Water)	36	62
Douglas Park	32	50
Nursery and Centre of the Arts	34	34
Wascana South	45	50
Wascana North	40	40
Total	261	384

2.2.2 Habitat

Habitat is abundant in Wascana Centre as its greenspace corridor provides an ecological sanctuary in locations such as Willow, Spruce and Goose Islands, and the Waterfowl Park (Riddell, 1992). Goose Island is a favorite nesting area for geese, with an estimated 300+ nests in the Park every year. An abundance of goslings in this park helps to re-stock other areas of the province with geese. The Waterfowl Park is similar to native prairie marsh and grassland, and is home to about 78 species of birds.

Regina is located west of the centre of the North American Central Flyway and is a gathering place and breeding ground for numerous wild waterfowl and native wildlife. As many as 10,000 geese visit the lake each year as a staging area, where they rest for a time before flying south for the winter. Canada Geese are the most abundant bird species in Wascana Centre, though other birds include tundra swans, shore birds, gulls, terns, ducks, songbirds, blackbirds, kingbirds and various warblers along the shore (Ewart, 1997).

In the early 1980's, sport fish such as pike were able to survive in the lake assisted by lake aeration from a neighbouring power plant. The subsequent closure of the plant and continued infill of lake depth has all but eliminated habitat for sport fish in the lake. Sticklebacks, Pearl Dace, and Fine-scale Dace still exist in the lake - limited in numbers, but important components of the food chain (Leavitt, 1997). Most sport fish species need deeper water and a higher dissolved oxygen content to survive through the winter than the lake now provides. The water treatment facilities for the City of Regina discharge water into the creek downstream from the Albert Street weir and keep a steady flow of water in Lower Wascana Creek year-round (Fries, 1997). Some sport fish seasonally traverse the downstream portion of the watershed to Wascana Lake from the Qu'Appelle Valley system to inhabit in the lake, but they do not normally survive the winter. Sedimentation and water column biochemical oxygen demand often cause Wascana Lake to become anoxic each winter (Lewis Jr. et al., 1984).

A number of species inhabit Wascana Centre. These include beavers, muskrats, mink, red fox, white-tailed jack rabbits, Richardson ground squirrels and weasels. Some of the last remnants of prairie grassland in Regina are found in Wascana Centre. All of these animals depend on each other in the food chain, and the presence of the protected wetland and prairie grass habitat (Zale and Leslie Jr., 1989). The lake provides a rich diversity of wildlife within the urban fabric, allowing humans and other animals to co-habitate in relative harmony. As sediment continues to build up in the lake, an increasing area is changing from wetland to grass and mud flats in the dry seasons, jeopardizing the diverse habitat at the sanctuary.

2.2.3 Urban Drainage

Regina currently recognizes the use of Wascana Lake and Creek as a discharge basin for its stormwater trunk main system. In 1993, approximately seven major and 15 minor storm trunks discharged directly into the lake. Street and developed land surface drainage are known contributors to the problem of suspended solids and pollutants in urban water bodies. In many cases, snowmelt and intermittent rain events cleanse the land surfaces and carry the effluent to the main water body where deposition occurs if no water current exists (Waite, 1992).

Wascana Lake receives direct surface drainage from approximately one-fifth of the urban area. The majority of drainage outlets occur west of the Albert Street weir and account for the remaining urban storm trunk drainage not collected in the lake. New development around the University Park East, Varsity Park and Wascana View residential areas may increase sediment contributions to the lake, if development continues (Crawford, 1996). Sanitary discharge outlets which maintain a constant year-round flow through the watercourse, but contribute minimal silt or sediment are all located west of Albert Street and do not drain into Wascana Lake (Fries, 1997).

Weed infestation, mud flats, and decreased lake depth are presently problems in eastern portions of Wascana Lake, indicating a problem with sediment inflow to the lake which will only be amplified with increased development in these areas. Though discharge outlets in the West Lake contribute to the problem of water quality, they are not deemed as primary causes of the sedimentation problem to the lake on the whole (Fries, 1997). Surface drainage should be addressed in the form of a better land management strategy in the urban areas to decrease the amount of impermeable surface and increase infiltration. This would decrease the volume of contaminated water entering the lake at high velocities from city streets.

2.2.4 Recreation

Wascana Centre is home to many seasonal activities, leisure sports, special events, and festivals in addition to the regular permanent functions. In the winter, the frozen lake is used for skating rinks, cross-country skiing and outdoor curling with warm-up shelters and kiosks. In summer, boat tours, rowing and sailing are common activities on the lake (Riddell, 1992).

Education, culture and tourism account for a large portion of the visitors to Wascana Centre with the Waterfowl Display Ponds, Wascana Place, Mackenzie Art Gallery, CBC Building, Saskatchewan Science Centre, Kramer IMAX Theatre, Royal Saskatchewan Museum, Centre of the Arts, University of Regina, and Legislative Assembly being year-round locations open to the public. Summer months also offer several activities around various parts of the park which include bicycle trails and rentals, rowing and kayak races, tours of the former Prime Minister Diefenbaker's homestead, Legislative grounds tours, Sunday Bandstand and Regina Bell-ringers' performances, enactments of the Trial of Louis Riel at Shumiatcher Theatre, the Willow Island picnic area and ferry, children's films at Wascana Place, horse-drawn carriage and wagon rides, and a public swimming pool (WCA Monthly Visitations, 1996).

The Centre is utilized by the community as a location for many public festivals and annual provincial cultural events (WCA Special Events, 1996). Among these regular festivals are:

Waskimo Festival	Outdoor winter festival in February.
Teddy-Bear Bash	Children's Health Foundation fund-raiser in June.
Mosiac	Cultural Festival in June.
Regina Int'l Children's Festival	Outdoor concerts and activities in June.
Bazaart	Arts and Crafts showcase in June.
Canada Day Festival	National birthday and fireworks on July 1st.
Pile O'Bones Sunday	Kick-off to the Buffalo Days Exhibition in July.
Wascana Centre Children's Day	Bandstand/performance day in August.
Dragonboat Festival	Team boat races on lake in August.

Each of these regular festivals and activities are an integral part of the character and fabric of Regina's urban identity and bring valuable tourist and rural dollars into the local economy. Their success is dependent upon the lake setting and the availability of the clean, safe, and well-maintained urban greenspace which is accessible to everyone in the centre of the city. In 1996, Wascana Centre hosted 211 activities in total. This demonstrates the value of Wascana Centre to the culture and local economy of Regina (WCA Annual Report, 1996).

2.2.5 Management Responsibilities - Wascana Centre Authority

Management responsibilities of Wascana Centre lands are overseen by the Wascana Centre Authority, the statutory corporation consisting of the Government of Saskatchewan, the City of Regina, and the University of Regina - the primary contributors of land to the Centre. Building uses and facilities in the Centre can serve one or more of five purposes - the development of the seat of government, the advancement of the cultural arts, the enlargement of educational opportunities, the improvement of recreational facilities, and the conservation of the environment (WCA Master Plan, 1992). As a result, many interests beyond those of the immediate residents of Regina rely on the maintenance and upkeep of the Centre.

Since its inception, the Authority has seen water management as an important part of its mandate. Although direct control has never been allocated to the Authority, it has always been assured that its water requirements would be met, and has had a vested interest in knowing about upstream activities (Paterson, 1996). The actual jurisdiction of water rights belong to SaskWater under the terms of the Saskatchewan Water Corporation Act. The Act (established in 1984) states that all water is the property of the Crown and "The right to the use of all ground water and all surface water may be established only pursuant to this Act." SaskWater must manage all water uses along streams and assure reasonable allocation of water and administration of the resource to the users within a watershed in Saskatchewan (Riddell, 1992).

The many land uses within Wascana Centre that are dependent upon the depth and health of the lake fall under the administrative control of the Authority, while the management of the actual flow and upper watershed projects on the watercourse are the responsibility of SaskWater. Dams, sediment control structures and riparian restoration projects in the upper Wascana watershed are administered by SaskWater, though effects are felt downstream in Wascana Centre (WCA Master Plan, 1992). In spite of the jurisdictional division, the importance of the lake functions to the City, and the health of the adjacent watershed and agricultural land base to the region are reasons for the management bodies to work together to ensure that urban and rural land and water uses are compatible.

2.3 THE WATERSHED CONTEXT

The majority of land in southern Saskatchewan is currently being used for agricultural purposes with essentially all of the good quality lands being used for grain production (Anderson et al., 1984). The lack of land management and stewardship initiatives has resulted in varied levels of degradation to the soil through wind and water erosion, organic matter loss, salinization, and acidification (Agriculture Canada, 1995). Numerous qualitative reports have been assembled by many agencies to estimate the risk, extent and severity of land quality degradation. To date, where water erosion is concerned, only a few quantitative erosion risk maps have been assembled to aid in better land management and planning.

Years of land clearing, fertilizing, slough drainage, and channelization in watersheds have depreciated the crop yields in many areas (albeit in varying degrees) and have created a need for long-range repartive measures to ensure sustained productivity of the land (PFRA, 1983). The direct result of lost organic material and soil material even with extensive fertilization can be seen in a 1970 southern Manitoba crop fertilization study where eroded soils consistently had lower yields than non-eroded soils (Appendix 8.2.2). The effects of poor land management are felt on downstream areas as well, with flooding, eutrophication, sedimentation and poor water quality (Lewis Jr. et al., 1984). An understanding of the interrelationship of erosion factors, including human activities in the watershed is necessary to adequately recommend proactive management initiatives which benefit all stakeholders in the watershed.

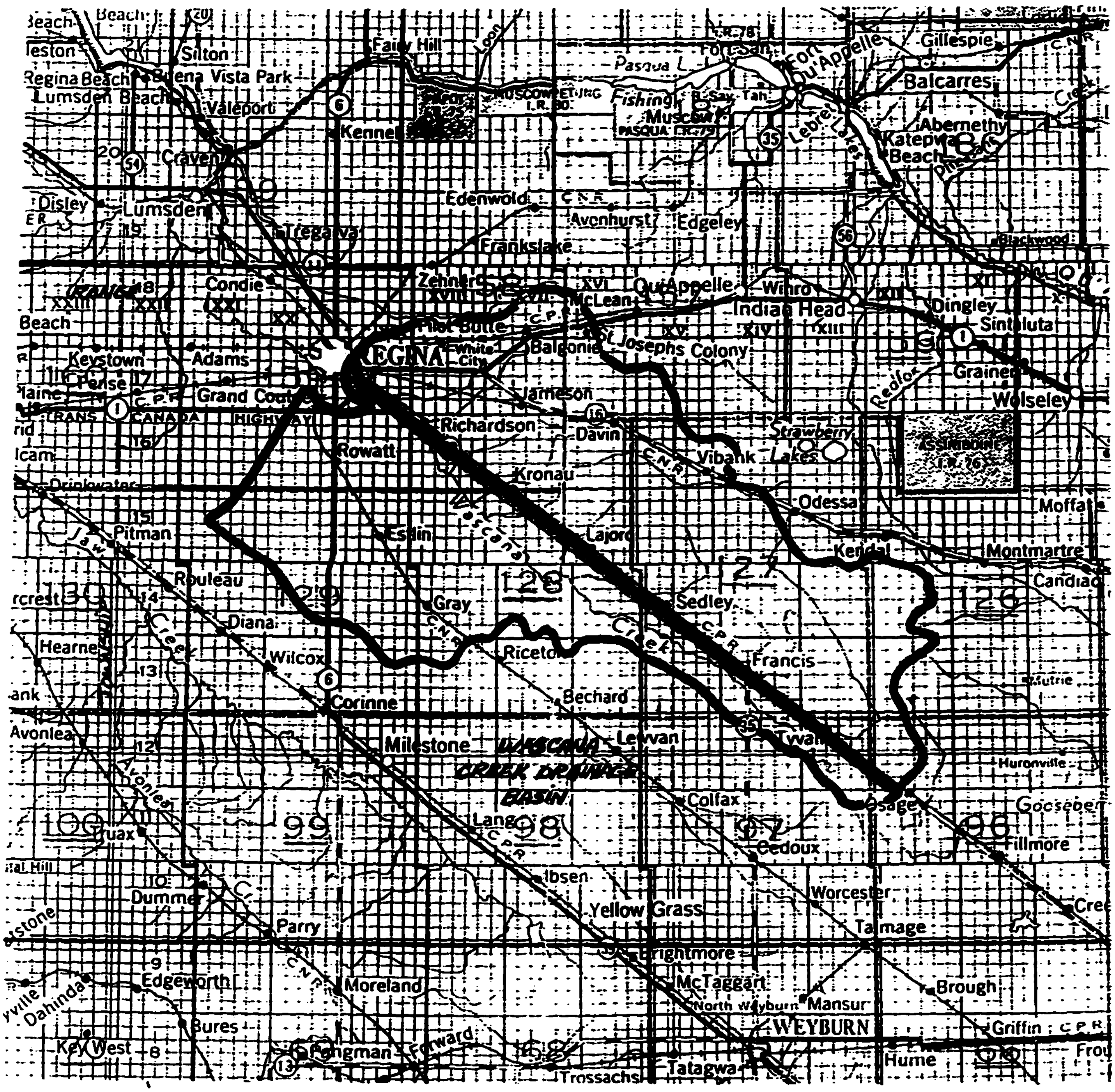
The establishment of political boundaries on the Prairies followed the convenient divisions of the township grid with many rural municipalities defining administrative jurisdictions according to the delineated squares surveyed across the Prairie. Although the land was deemed to be flat, and the divisions equitable, the political divisions did not coincide with the slope of the land or the subsequent drainage basins. Today, jurisdictional cooperation may be problematic when conceiving environmental planning solutions in watersheds or bioregions, because two or more rural municipalities may be affected where there is a need to incorporate specific cross-boundary stewardship measures or policies (Aberley, 1994).

2.3.1 The Upper Wascana Creek Watershed

The Upper Wascana Creek Watershed consists of the entire drainage basin to the southeast of the City of Regina (Illustration 2.3.1a). The watershed includes approximately 3,340 square kilometres of land area, all of which is either in crop or livestock production. Grain production is the primary land use; ten operative grain terminal delivery points lie within the watershed, and 12 other neighbouring elevator locations beyond watershed boundaries also handle crop yields from within the watershed boundaries (Canadian Wheat Board Statistics, 1995). The upper watershed encompasses a portion of 50 townships of land within nine rural municipalities (Table 2.3.1) and portions of the City of Regina.

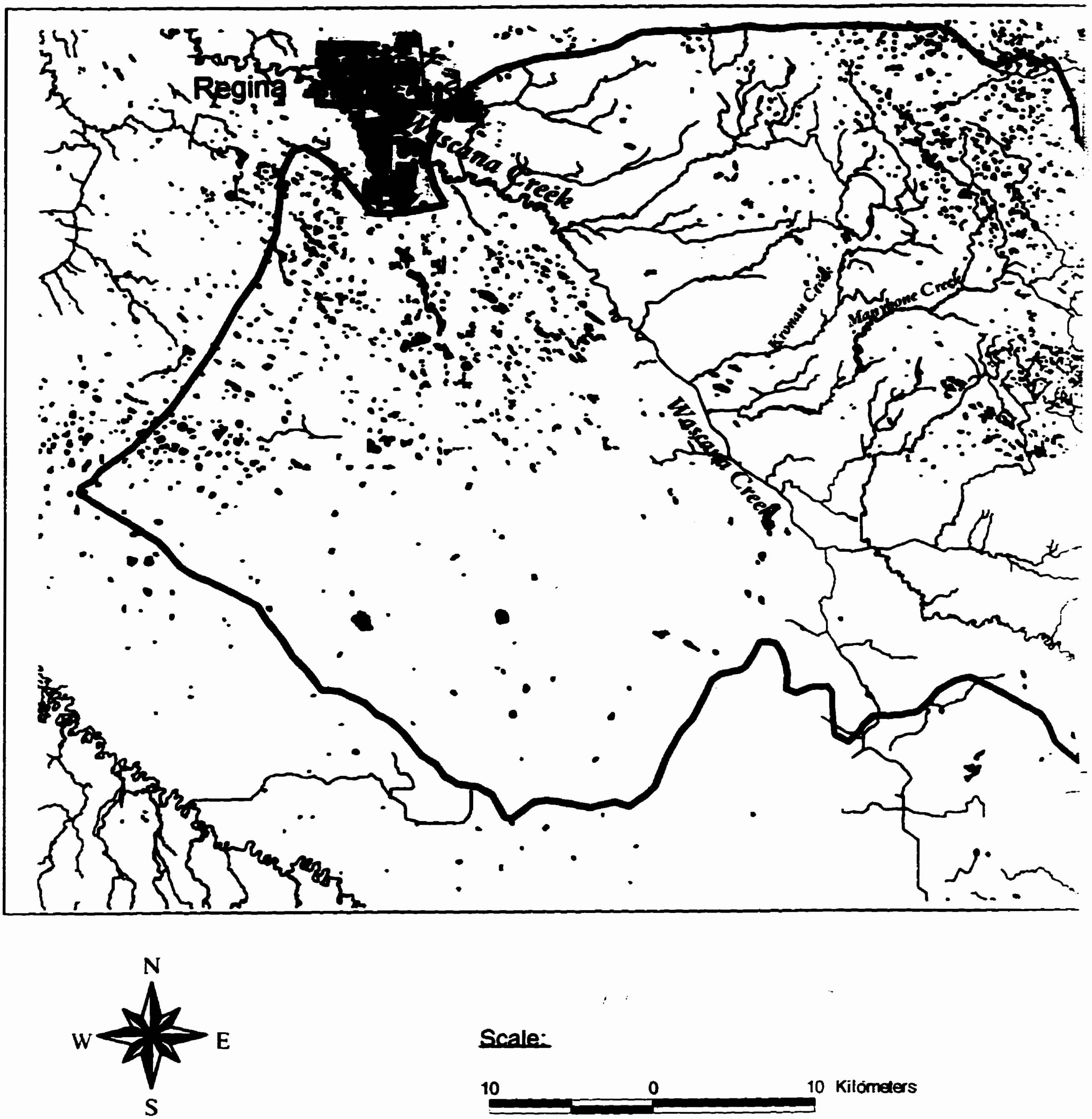
The Wascana Creek meanders across the landscape - a linear distance of over 125 kilometres, draining a basically flat landscape with little topographic variance (especially west of Provincial Highway #33). Many wetlands exist in a pothole region of more undulating topography in the southeastern portion of the watershed. The entire water coverage including the wetlands is depicted in Illustration 2.3.1b in relation to the City of Regina.

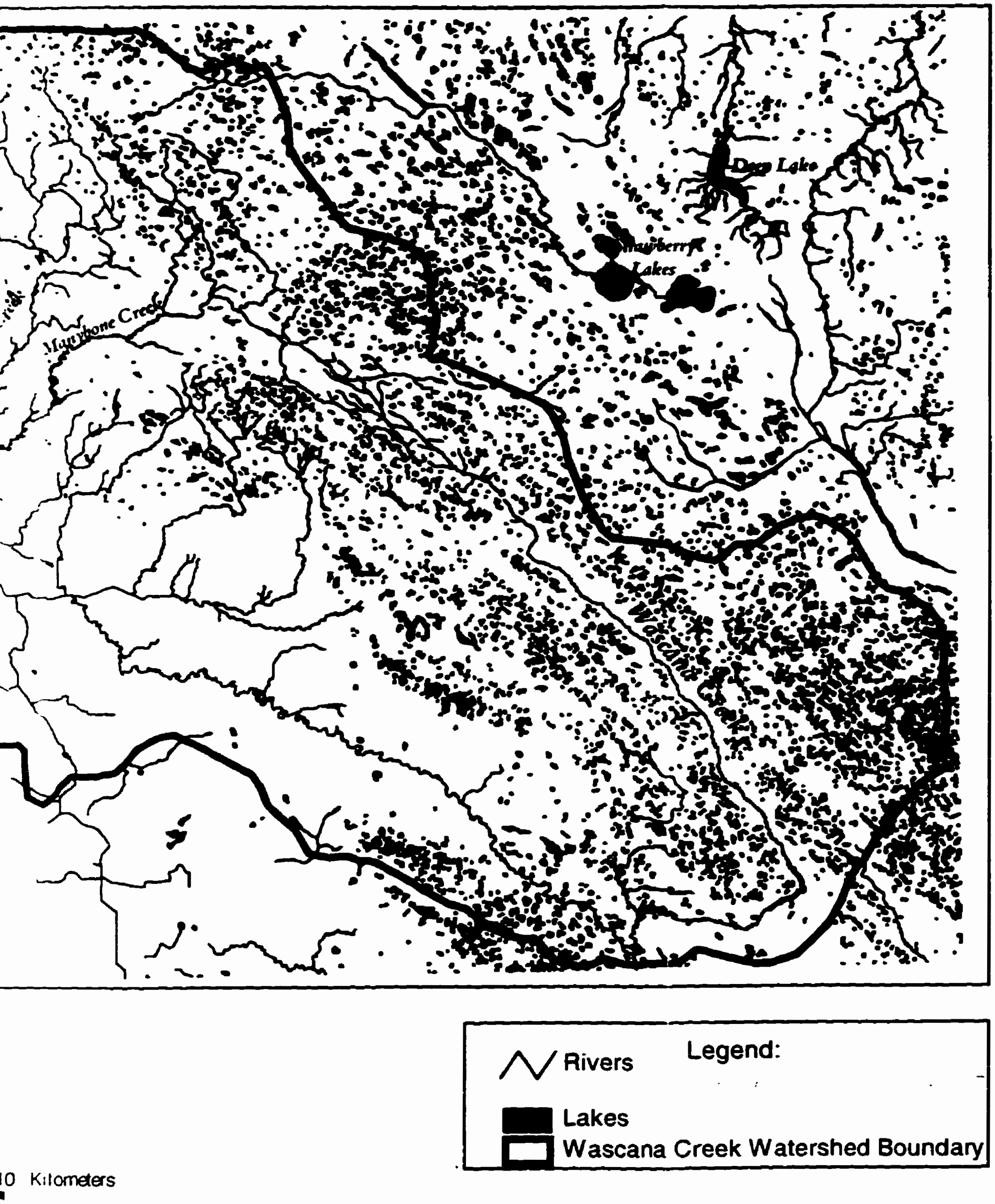
ILLUSTRATION 2.3.1a
Upper Wascana Creek Watershed Drainage Basin



• Mines & Technical Surveys and Mapping Branch - Saskatchewan (South Sheet)

ILLUSTRATION 2.3.1b
Upper Wascana Creek Watershed Water Coverage





Produced By Jo Ashley 06/97

TABLE 2.3.1
RURAL MUNICIPALITIES IN THE UPPER WASCANA CREEK WATERSHED

1.	R.M. of Bratt's Lake
2.	R.M. of Edenwold
3.	R.M. of Fillmore
4.	R.M. of Francis
5.	R.M. of Lajord
6.	R.M. of Montmartre
7.	R.M. of Sherwood
8.	R.M. of South Qu'Appelle
9.	R.M. of Wellington

Areas to the south of Regina have consistently suffered from a land drainage problem due to the extremely flat nature of the terrain. An area of 118 km^2 south of the City of Regina drains into two large sloughs known as Rowatt and Stice Sloughs (respectively east and west of Provincial Highway #6). In wet years, up to 2870 ha of farmland has been known to flood due to spring meltwater. Subsequently, excess water removal and prompt drainage is desired on these lands. Further upstream, the flows are arrested by the Tyvan Reservoir which collects runoff from the southeast flowing waters of the creek. Minimal erosion occurs during spring flooding because the topsoil layer is frozen (Shaw, 1980), and few erosion control measures exist to ensure that soil loss and organic depreciation is reduced from the more erosive post-thaw rainfall events.

2.3.2 Soil Erosion in the Upper Watershed

Accelerated erosion is the substantial loss of soil over a relatively short period of time, resulting in the transport of sediment and nutrients from farmland to other undesirable locations. Different from geological erosion, where the transport of soil materials takes place over a long period of time, accelerated erosion is often the result of unhealthy human-induced land management practices (Parsons, 1993). Erosion seems to favor removal of plant nutrients over other soil constituents, resulting in higher concentrations of nutrient-rich soil in downstream eroded sediment samples than the originating materials. An Agriculture Canada report on Agricultural Land Degradation in Western Canada (1984) named soil erosion "the most serious single resource degradation issue facing Prairie agriculture today" and framed the problem in terms of projected long-term economic losses.

The report stated that when using a formula that calculated annual cost in terms of multiplying the total area affected by the yield loss and by the crop value, resulting estimates ranged across the Prairies from 50¢/improved acre to $14/improved acre, and an excess of $7,000 per year for some farmers. In 1984, about 90% of annual erosion costs were absorbed by the Saskatchewan farmer, and were in excess of 5% of the total value of crop production in the province. This has been translated into an estimated net farm income loss of 15-20% if erosion prevention measures are not implemented. In terms of net farm income, this would be about equal to a complete crop failure once every five years (in which event, payouts from the primarily federally supported Grain Stabilization Fund would be required for farm relief). Costs of soil erosion to the Canadian economy and Prairie agriculture will easily reach into the billion dollar range over the long term if restorative land stewardship initiatives (including soil conservation and rehabilitation) are not implemented (Anderson et al., 1984).

TABLE 2.3.2
ESTIMATES OF EROSION EFFECTS OVER TIME
ON THE SASKATCHEWAN FARM ECONOMY
(Anderson et al., 1984)

	1984	1990	2008
Actual & Potential Costs of Erosion without Ameliorative Measures	$210,355,000	$221,475,000	$254,828,000
Projected Farm Impacts of Erosion without Ameliorative Measures	$3,125/farm; $4.32/ improved acre	$3,290/farm; $4.55/ improved acre	$3,785/farm; $5.24/ improved acre

In addition to the basic economic costs, the transport of nutrients through the watercourse to the eventual deposition point provides a problem downstream if the sediment and organic material is not desired there. Nutrients which increase biological activity in water and encourage algae growth are transported into streams and lakes by erosion. The microorganisms consume the supply of oxygen for fish and other aquatic life and threaten these species populations. This process, known as eutrophication, is amplified by nitrogen and phosphorus-based fertilizers which are carried into the watercourse via runoff from the agricultural watershed (Lewis Jr. et al., 1984). It is therefore essential to retard the erosion and nutrient transportation process to prevent environmental and economic degradation from occurring both within the watershed and downstream (Ravera, 1991).

Wascana Creek is a dynamic watercourse until the early summer season when the water source changes from spring snowmelt to intermittent summer rainfall. Although the rainfall does not always span the entire watershed following a rainfall event, it is during these events in early summer that the greatest potential for erosion occurs (Ripley et al., 1961). Cultivated soil that has not yet fostered germination is prone to ephemeral erosion - a process of soil particle movement and redeposition. Soil particles move through the watershed until they reach a sediment trap and are deposited. Wascana Lake is a location where this occurs.

2.3.3 Effects of Sedimentation on Wascana Centre

The results of natural and human-aggravated erosion are noticeable not only in the diminished water volumes of the lake basin, but are also currently affecting the functions and activities at the lake. It is estimated that the storage capacity of the reservoir has likely been reduced by approximately one-quarter (700 dam^3) of its capacity since the last dredging in the 1930's. Sediment deposition interferes with water intakes (especially in the upper basin) during low lake levels and diminishes the capability of the lake to meet irrigation needs. Sediment deposition also reduces the flow through the channel at the head of the lake and results in backwatering onto agricultural lands upstream (Saskatchewan Department of Agriculture, 1965).

Accumulations of organic matter and subsequent weed growth in the lake limits the ability to conduct rowing and canoeing sport activities. The Wascana Centre Authority currently engages in weed removal operations to clear key areas of the lake from weeds. Foul odours accompany the shallow waters in summer as many wetland species come to nest in the weeds, and the resulting waterfowl feces encourage intense biological activity and eutrophication. The aesthetic quality is a critical component of place-making for human use. As listed in Section 2.2.4, many festivals, permanent functions, recreational activities, and thousands of visitors enjoy the urban greenspace annually. With ever-increasing sediment levels, the mud flats are growing and the lake is reverting to marshland and grassland over time.

3.0 UPPER WATERSHED CHARACTERISTICS

3.1 ACTUAL CREEK DEPOSITION

Wascana Lake has acquired a significant amount of sediment over a period of many years. The composition and volume of sediment in the lower reaches of a watershed are products of the erosion factors (which include the human land uses) of that region. The significance of monitoring the accumulations and noting the richness of the lake bed composition is that the continued annual transport of the soil matter into the lake translates into diminished agricultural land production capacity through lost nutrients, and jeopardized urban functions from decreased lake depths.

3.1.1 Composition of Sediment

The composition of the top layer of sediment in the Wascana reservoir has an average depth of approximately 0.5 - 1.0 metres and consists of very soft silt which has accumulated since the last dredging of the lake in 1931 (Pentland, 1991). The underlay is primarily glacial till which likely spans the entire lake bed uniformly beneath the silt. The very thick deposition of silt is a result of years of the settling of soil particles in the reservoir. Although the sludge is primarily silt from the clay-based soils immediately south of the headwaters of the lake, a range of fine sands and suspended solids are also present. Anecdotal commentary suggests that high organic content would make the Wascana muck rich in nutrients, but potentially unacceptable for agricultural use due to its anaerobic nature or possible pollutants from runoff. The lower density muck near the water surface produces heavy plant growth in the summer, and consists of a loose agglomeration of dead aquatic weeds, sediments and organic matter (Ewart, 1997).

3.1.2 Sediment Volumes

Sediment inflow to at the entrance to Wascana Lake has never been measured, leaving sediment volume calculations open to best approximations based upon correlations between surface runoff and sediment mass readings. Comparisons of runoff and sediment mass usually show a high correlation because large volumes of runoff have greater flow velocities which erode more soil and transport it downstream. Sediment measurements on Wascana Creek near Richardson were compiled for seven years in the 1960's (Appendix 8.3.1) by the Water Survey of Canada. There was not a long-term record of runoff flows at Richardson. The hydrometric station at Sedley provided runoff readings for the portion of the drainage area upstream from Sedley, but excluding a large number of subsidiary tributaries downstream before Richardson and Regina.

Pentland Consultants (1991) attempted a correlation of the flow volume at Sedley to the sediment mass at Richardson and empirically calculated the coefficient of correlation at 0.94 - a fairly strong relationship. They increased the estimated sediment contribution by 20 percent to account for the ungauged area downstream from Richardson and thereby calculated an estimate of rural sediment inflow to Wascana Lake at 6,300 tonnes of sediment. About 170,000 tonnes of rural runoff sediment is estimated to have accumulated in Wascana Lake since about 1962 (date of first Richardson reading). By these calculations, about 180 dam^3 of the lake volume (approximately 7%) has been lost to sedimentation in the period between 1962-1990.

A 1990 survey of the lake bottom by the Wascana Centre Authority was used to calculate the area and volume of the lake. These results indicate a loss of about 13% of the lake capacity since 1962. The 6% discrepancy between the Richardson-Sedley calculations by Pentland and the Wascana Lake bottom survey by the WCA may, in some part, be attributable to estimate error. The remaining sediment would be that which is introduced by the urban runoff (of which there currently are no records) or accumulating vegetation.

The City of Regina Municipal Engineering Department estimates that storm trunk main discharge is not a primary contributor to sediment loading east of the Albert Street weir (Wascana Lake) because nearly four-fifths of the urban drainage enters the creek west of the weir (Crawford, 1996). Although urban drainage must definitely be addressed through greater on-site retention design and re-use, indications of depth-loss are most severe where sediment build-up has occurred due to retarded water velocity in the easternmost portion of the lake. With the sediment having reached very high levels in the East Lake, sedimentation is now becoming a more noticeable occurrence in the West Lake as well (Dockam, 1997).

3.2 EROSION FACTORS

Erosion is a phenomena which has always occurred naturally, and always will. It is an aspect of the constant process of change in the carving of the earth's valleys, wearing down of mountains and formation of alluvial soils and sedimentary rocks. Accelerated erosion is when the process is expedited by human activities - a dramatic increase over the natural rate of geological erosion. Hudson (1995) describes accelerated erosion in the agricultural context as:

> Whenever vegetation is cleared and the ground is more exposed, ... [there is] less vegetation to absorb the energy of the falling rain so more rainfall erosion, more surface runoff so streams and rivers become stronger, more cattle to crush the rock and soil. By ploughing and tilling the soil man disturbs and aerates the soil millions of times more quickly and effectively than burrowing animals - in fact all the physical processes of nature are accelerated, and so is erosion.

Although wind erosion may be a problem on the Canadian Prairies in especially dry years, the most important single agent of erosion is water, from which the greatest amounts of soil loss from agricultural land occurs. Tolerable soil loss is when there is no progressive deterioration of the land, and the rate of soil loss is no greater than the rate of formation, with or without modern improvements to soil productivity and fertility by good management (Coote et al., 1981). Soil scientists in Canada and the United States normally use the value of 11.2 tonnes/hectare/year as the acceptable upper limit of tolerable soil loss which assumes an approximate formation rate of approximately 25 mm over a 30 year period (Troeh et al., 1991). The reason for settling on this value by soil science experts from the various soil regions in the United States is:

> We consider these to be rates that will make it possible for the operator to maintain the soil in a productive state through a long period of years without serious sedimentation and without having great losses of plant nutrients (Edwards, 1961).

In order to diminish the amount of accelerated erosion to a tolerable level, an inventory of the factors contributing to erosion must be acquired to attempt a quantitative assessment of the soil loss rate on a given area of land in a determined period of time. Watershed attributes such as rainfall amounts, topography, soil types, cropping practices, vegetation, stream morphology, and major land use changes are all characteristics which combine to make a plot of land identifiable as low, medium or high risk to water erosion (Parsons et al., 1993).

3.2.1 Climate Data (Rainfall Erosivity)

The Saskatchewan climatic region is described as being a cool semi-arid to sub-humid type, indicative of the climate of the interior of a continental land mass in the north temperate zone. The climate of the settled portion of Saskatchewan has relatively low precipitation, with more than half of the annual rainfall coming in the growing season from May to August (Environment Canada, 1989). The tendancy of rain to cause erosion is therefore greater in this period than in the snowmelt period.

Rainfall erosivity is the potential of rain to cause erosion, and is a function of the physical attributes of rainfall. Soil erosion involves the expenditure of energy in all aspects of erosion such as breaking down aggregates, splashing them into the air, and creating turbulence in the surface runoff (Wischmeier, 1959). The importance of rainfall splash was demonstrated by Hudson (1957) in field experiments showing that plots of land protected from rain-splash by gauze reduced erosion to 1% from unprotected plots. Stormfall events varied in initial tests with respect to rainfall amounts and actual soil loss although a stronger correlation was recorded between kinetic energy of the rain and soil loss.

Wischmeier and Smith (1958) determined that a compound component parameter, the product of the total kinetic energy (E) of a storm and its maximum 30-minute intensity (I), could represent the interaction between the two rainfall characteristics, and named the product - the energy intensity index (EI). In 1978, Wischmeier and Smith summarized their work, determining that index values in the north-central regions of the United States and Canadian Prairies could be represented by the equation:

$$R = 27.38\, P^{2.17}$$

where: R = rainfall erosion index in units of (ft-tons·in/acre-h)

P = 2-year, 6-hour rainfall (inches)

The metric equivalent was established by Wall et al in 1983, when the average annual EI was calculated using the 2-year 6-hour intensities from 42 Environment Canada weather stations. It remains as follows:

$$R = 0.417\, P^{2.17}$$

where: R = rainfall erosion index in units of $\frac{MJ \bullet mm}{ha \bullet h}$

P = 2-year, 6-hour rainfall (mm)

The rainfall frequency atlas published by Hogg and Carr in 1985 using Canadian Climate Centre normals (Appendix 8.3.2) for precipitation, shows the mean and standard deviation for storm events from five minutes to 24 hours in duration for various regions of Canada. The 2-year 6-hour storm may be calculated for Regina Airport (the closest weather station to the watershed) using the 6-hour Duration maps (Appendix 8.3.3) and the formula:

$$X_T = \overline{X} + K \bullet S$$

where: X_T = Amount of rainfall in the return period (T = 2 years)

$\overline{X}$ = Mean annual extreme

K = −0.164 for a return period of 2 years

S = Standard deviation

Using this formula, the 2-year 6-hour storm for Regina Airport is calculated as 28.4 mm (Appendix 8.3.4), and the subsequent *R* factor index using this calculated storm amount is 594.1 (MJ • mm/ha • h). This is comparable to the value of 563 (MJ • mm/ha • h) calculated by NORMAC Ltd. (1992) for Avonlea, Saskatchewan to the southwest and known to be in a slightly drier geographic location. The *R* factor is assumed to be relatively uniform across the watershed. Therefore 594.1 (MJ • mm/ha • h) is used as the rainfall erosion index for the Upper Wascana Creek watershed southeast of Regina Airport.

3.2.2 Topography (Slope Steepness-Length)

Southern Saskatchewan forms part of the physiographic unit known as the Great Plains which stretches from the Canadian Shield (northeast) to the Cordillera (west). The area to the west of the Manitoba escarpment forms the second prairie steppe, and extends from the lower plains of Manitoba, Pembina Hills, Riding Mountain, and Duck Mountains in the east to the Missouri Coteau in the west. It is in this region that the Upper Wascana watershed runs its northwesterly course to the Qu'Appelle Valley. The topography is generally undulating to gently rolling with very flat regions where the beds of ancient glacial lakes such as Glacial Lake Regina existed (Mitchell et al., 1977).

Topography is important to erosion because it dictates the potential rate that runoff is able to flow down an inclined parcel of land. The length of the slope and the gradient (% slope) are two components necessary in determining the erodibility of a slope. Although soil erosion is generally proportional to the square of the slope length, erosion is much more sensitive to the gradient, where doubling the percent of slope more than doubles the amount of soil loss. Wischmeier and Smith (1965) combined slope and gradient into one term to produce a value indicative of the steepness and length of a given plot of land. The relationship is:

$$LS = l^{1/2}(0.0138 + 0.00957s + 0.00138s^2)$$

where: l = the slope length in metres

s = the gradient in percent

Lands in the Upper Wascana watershed vary from depressional enclosed basins directly south of Regina with less than 0.5% of slope to very steeply sloping and strongly dissected parcels of land with external drainage. The land surfaces directly south of Davin have sharp ridges and steep slopes sometimes in excess of 16% with extremely drained bottom lands which may give way to gully erosion. Exact slopes for specific sections of land have been mapped by Agriculture Canada on the Saskatchewan Soil Map Sheets. In Saskatchewan, the Soil Survey uses the following classes for topographic phases:

TABLE 3.2.2
DEFINITIONS OF TOPOGRAPHIC CLASSES
Saskatchewan Soil Survey (Mitchell et al., 1977)

Class	Topography	Slope %	Frequency*
A	Level to depressional	0 to below 1	0
B	Gently undulating	1 to 2.5	2 or less
C	Moderately undulating	2.5 to 6	2 or less
D	Strongly undulating	6+	1
F	Very gently rolling	2 to 4 4 to 6	3 or more 2
G	Gently rolling	4 to 8 8 to 10	3 or more 2
M	Moderately rolling	8 to 15	3 or more
H	Strongly rolling Hilly	15+ 25+	3 or more 1 or more

* Frequency refers to the number of "rolls" from ridge to ridge, occurring per half mile. Thus the topography of individual quarter sections may be classified in more detailed surveys. The frequency is estimated by taking account of the larger, more important knolls and ridges. Typical slopes are measured with a hand level.

3.2.3 Soil Types and Characteristics

The erodibility of soil is its vulnerability or susceptibility to erosion. In profiles of mineral soils three main horizons are designated from the surface downward as A, B, and C. Generally in the Upper Wascana Watershed, the top horizon begins with the Ah sub-horizon (top) in which organic matter has accumulated from the growth of plants and subsequent later decomposition by micro-organisms. The impacts of erosive elements such as rainfall affect this layer significantly when it is broken and left as fallow (unseeded), making it most susceptible to erosion. It is from this layer that the combined characteristics of silt, sand, organic matter, soil structure, and permeability of a particular soil association tell us how prone the surficial layer of that association is to being eroded (Moss, 1965).

A soil erodibility nomograph (Appendix 8.3.5) was developed for semi-arid agricultural soils by Wischmeier et al. in 1971 to quantify how the aforementioned attributes influence the soil's capacity to infiltrate rain. By plotting the attributes on the nomograph, it is possible to calculate soil erodibility factors (also termed "K-factors") for topsoil layers in specific associations within a soil zone and subsequently, a rate of runoff compared to other topsoil layers. Soil erodibility factors for the associations in the Upper Wascana Watershed were calculated by plotting the morphological, physical and chemical analyses from the Saskatchewan Soil Survey maps and tables onto the nomograph (Ellis et al., 1965). An inventory of these factors, applicable soil associations, and soil maps for the regions in the watershed are included in Appendix 8.3.6.

In general, soils in the Upper Wascana Watershed vary in composition from the Brown Soil major zone at the extreme southwest edge, to the Black Soil major zone along the northeast edge toward Indian Head. The majority of the watershed is composed of Dark Brown Soils to which Regina and Weyburn are apart. Within each of these major soil zones are specific soil associations. The Saskatchewan Soil Survey plots the associations by map areas which include the Weyburn, Regina and Indian Head Map sheet regions (Crosson, 1976).

The chief problems associated with Weyburn soils have been the hazards of drought, wind erosion, and water erosion on the rolling phases. Where water erosion has occurred, the rolling phase loams require the establishment of grass cover to remain fit for arable agriculture. Regina soils are generally very flat, clay-based, drought resistant, and represent some of the best wheat lands in the province (deJong et al., 1983). As a result, very little grassing for livestock grazing exists and water erosion can be a significant problem where the moderately undulating soils of the region exist. Serious gulleying has occurred in the past on the long slopes extending into coulees and valleys south of Davin and Francis, and therefore makes the control of erosion on such a valuable soil very desirable (Agriculture Canada, 1995). The Indian Head soils to the northeast encounter few major problems with drainage and are also very rich crop-producing soils. Indian Head clay-textured soils are more stony than the Regina soils and are slightly inferior to the heavy clay in drought resistance and susceptibility to wind erosion. Again, water erosion becomes a problem on slopes adjacent to coulees and drainage channels where grassed waterways have been cultivated or brush and natural vegetation removed (deJong et al., 1983).

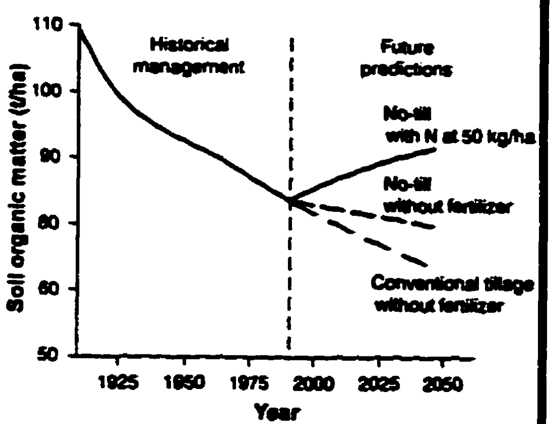
3.2.4 Cropping Practices

The high fertility of the soils in the Regina-Weyburn-Indian Head region of Saskatchewan is optimal for agricultural crop production (primarily wheat). Few of the clay-based soils are used for livestock grazing, although this changes further to the southeast where more till is exposed and the topography is more undulating. Hilly areas to the east and southeast are used for grazing and forage cropping. More surface erosion is prone to occur if these undulating areas are cultivated for grain production because the soil textures are lighter and more loamy in the southern and eastern reaches of the watershed than immediately south of Regina (Ritchie, 1997).

Cropping practices have gradually shifted over a period of several decades as education regarding soil loss and fertility has become more widespread. In the first half of the century, the primary choice of farmers for seeding was wheat on a seeded-fallow rotation, or a seeded-seeded-fallow rotation. This meant that for one growing season, wheat was planted and harvested; the following season, the land was maintained as summer fallow without a crop to help restore the growing capacity of the land in terms of nutrient replenishment. For the latter rotation, the crop (usually wheat) was farmed for two successive seasons followed by fallowing (Tanner, 1997).

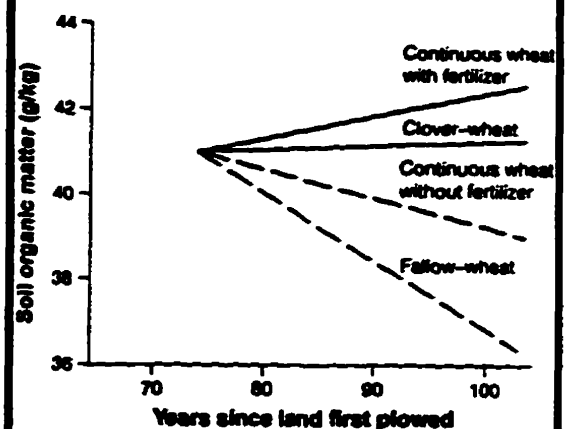
Summer fallowing, or tilling of land without re-seeding, leaves the soil surface in its most vulnerable state to erosive elements such as wind and water. The furrows resulting from tilling may become minute drainage channels for water if they do not run perpendicular to land slope. Plants contribute to soil stability by holding soil particles together with their roots, and in mature stages reduce the intensity of rainfall erosivity before it impacts the soil (Pomeroy et al., 1988). The nutrients necessary for healthy crop production are vulnerable to erosion in heavily cultivated, exposed fallow (Agriculture Canada, 1995). With excessive fallow, comes the necessity to replenish lost nutrients with expensive fertilization over very large parcels of land. There is often a loss of large amounts of soil volume as well (Tables 3.2.4a and 3.2.4b).

TABLE 3.2.4a
ORGANIC MATTER LEVELS AND MANAGEMENT PRACTICES
(Agriculture Canada, 1994)



Computer predictions of total levels of organic matter in the top 30 cm of a prairie soil under no-till with and without fertilizer and under conventional tillage without fertilizer.

TABLE 3.2.4b
ORGANIC MATTER LEVELS AND CROP ROTATIONS
(Agriculture Canada, 1994)



Organic matter levels under different crop rotations in prairie soils.

Continuous cropping is the practice of not fallowing the land for any growing season, thereby keeping the land in production on a regular basis. This used to be deemed an unacceptable practice because of the fear that the land would be exhausted of its growing capacity if it were farmed indefinitely. Research has shown that in conjunction with modern nutrient enhancement programs, the soil's capacity to produce crops is not diminished unless organic material is removed or allowed to erode due to poor management practices prohibiting infiltration or organic decomposition (Anderson et al., 1984).

Zero-till is a process where a crop is seeded into an untilled stubble surface creating a minimal amount of soil disturbance. In conventional tillage, all of the topsoil is inverted and seeding is done by settling the seed into the prepared bed. Zero-till provides minimal soil manipulation, but requires more extensive weed control application for crop protection which is often more costly to the farmer. In the long-term, when used in association with a continuous cropping rotation, soil loss and degradation is at a near minimum and soil productivity is maintained (Cameron et al., 1992).

Hudson (1995) states that it is not the crop which is or is not soil depleting, but the crop management - how the crop is grown. In an attempt to develop better information about crop management, Smith (1941) defined the concept of a permissible soil loss, and made the first attempt at defining a cover factor, or C-factor. With further research, the over all erosion-reducing effectiveness of a crop cover for given rotations was defined in numeric terms by Wischmeier and Smith (1962) in terms of type and density of vegetative cover and management practices. The C-factors for southern Manitoba and Saskatchewan are:

Table 3.2.4c
C-FACTORS FOR SOUTHERN MANITOBA & SASKATCHEWAN
(Shaw, 1980)

Rotation	Variation	C-factor
Continuous fallow	no residue	1.00
Fallow-grain	200kg residue	0.43
Gr-gr-gr-fallow	1100kg residue	0.19
Continuous grain	fall chisel & till in spring	0.19
Continuous grain	no fall tillage	0.15
Flax-grain-3 yrs. hay		0.06
Perennial Forage		0.02
Uncultivated Pasture		0.02
Forest		0.02
Slough/Watercover		0.00
Impermeable Surface		0.00

Within the scope of agricultural land use, there can be large fluctuations in the amount of erosion due to various cropping practices such as contouring, terracing, contour-strip cropping, and diversions. Cropping practice was differentiated from crop management and given a separate quantitative class by Wischmeier and Smith. A *practice* factor, or P-factor for the Canadian Prairies is generally assigned a value of 1.0 due to the even, planar cultivation over a uniform cropping surface, seldom requiring any employment of the aforementioned cropping practices (Peterson et al., 1979).

In the Upper Wascana Watershed, lands used for crop production are currently managed at approximately one-third continuous cropping, one-fifth fallowed regularly in rotation, and one-third with zero-till cultivation (Tanner, 1997). Canadian Wheat Board statistics from 1955-95 indicate that the amount of seeded acres reported to local delivery points (grain elevators/terminals) within the watershed have been increasing, and total number of fallowed acres are decreasing.

3.2.5 The Drainage Network

The drainage network in the Upper Wascana Creek Watershed consists of three orders of stream classes which follow natural drainage pattern through the slightly more undulating terrain, and consist of constructed watercourse in the lower reaches of the watershed.

1. Incipient waterways are the first significant channels for water movement in the uppermost reaches of the watershed, and their direction and morphology is dictated by topography. The range of incision of the channels vary from zero to 200 cm depressions in the landscape and may change as a result of erosion and deposition in the watercourse. Grassed incipient waterways are seldom maintained to control erosion and are therefore often cultivated when land is broken because they run diagonally or meander across farm fields.

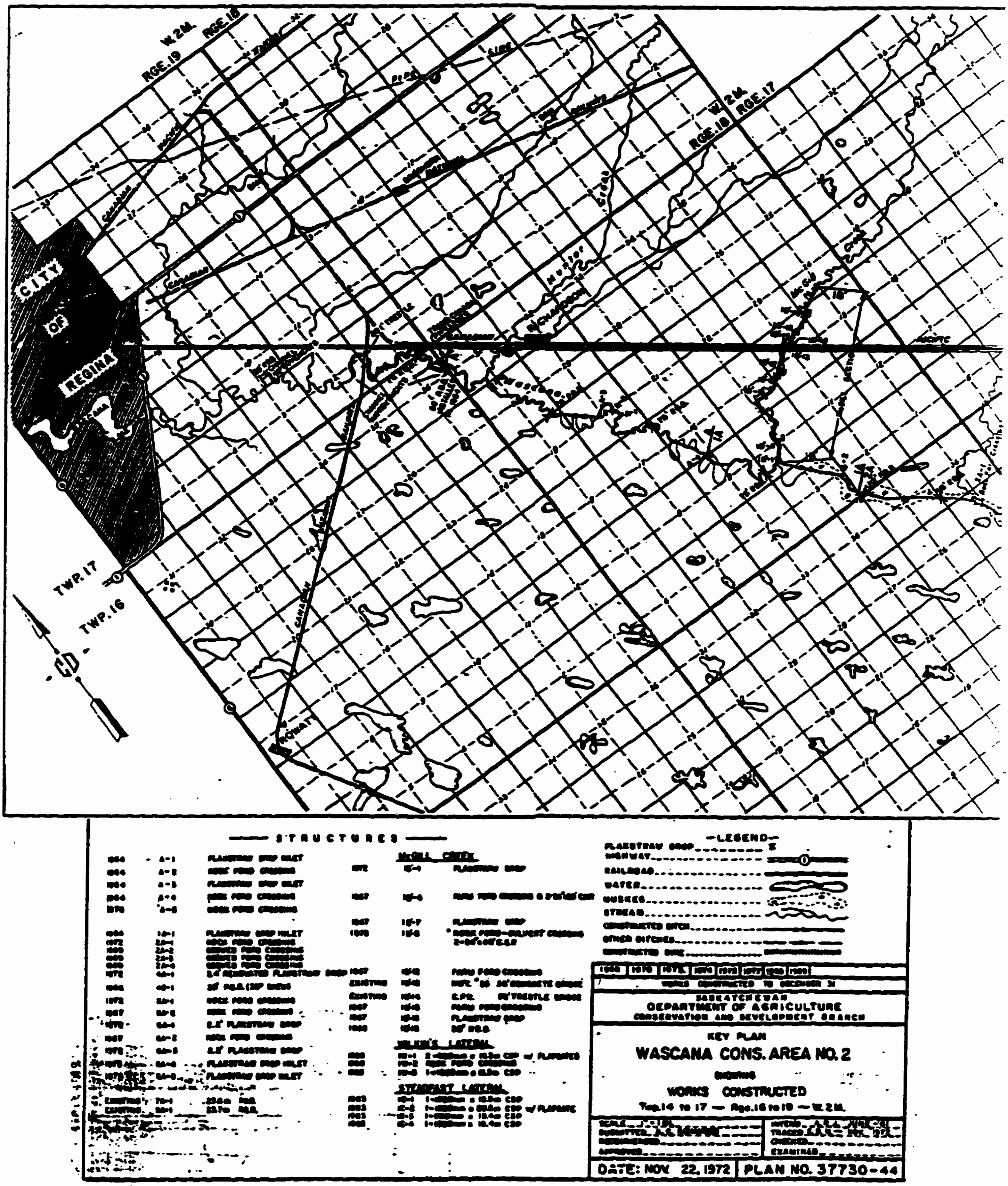
2. Second-order tributaries receive upstream flow from the incipient water runs and display a higher level of incision (≤300 cm below upland level). They generally display a slight increase in the development of more dense vegetation. Erosion and deposition may occur more frequently in cultivated runs, with excessive deposition resulting in clogged lower reaches which forces runoff to find an alternate course (Ravera, 1991). This is particularly problematic at the side laterals of Wascana Creek, where even if a run is grassed for erosion protection, a forced alternate course occurs beyond the edge of the existing waterway thereby gulleying out substantial tracts of valuable organic matter. It should be noted that grassed waterway maintenance and rip-rapping does not exist in these locations.

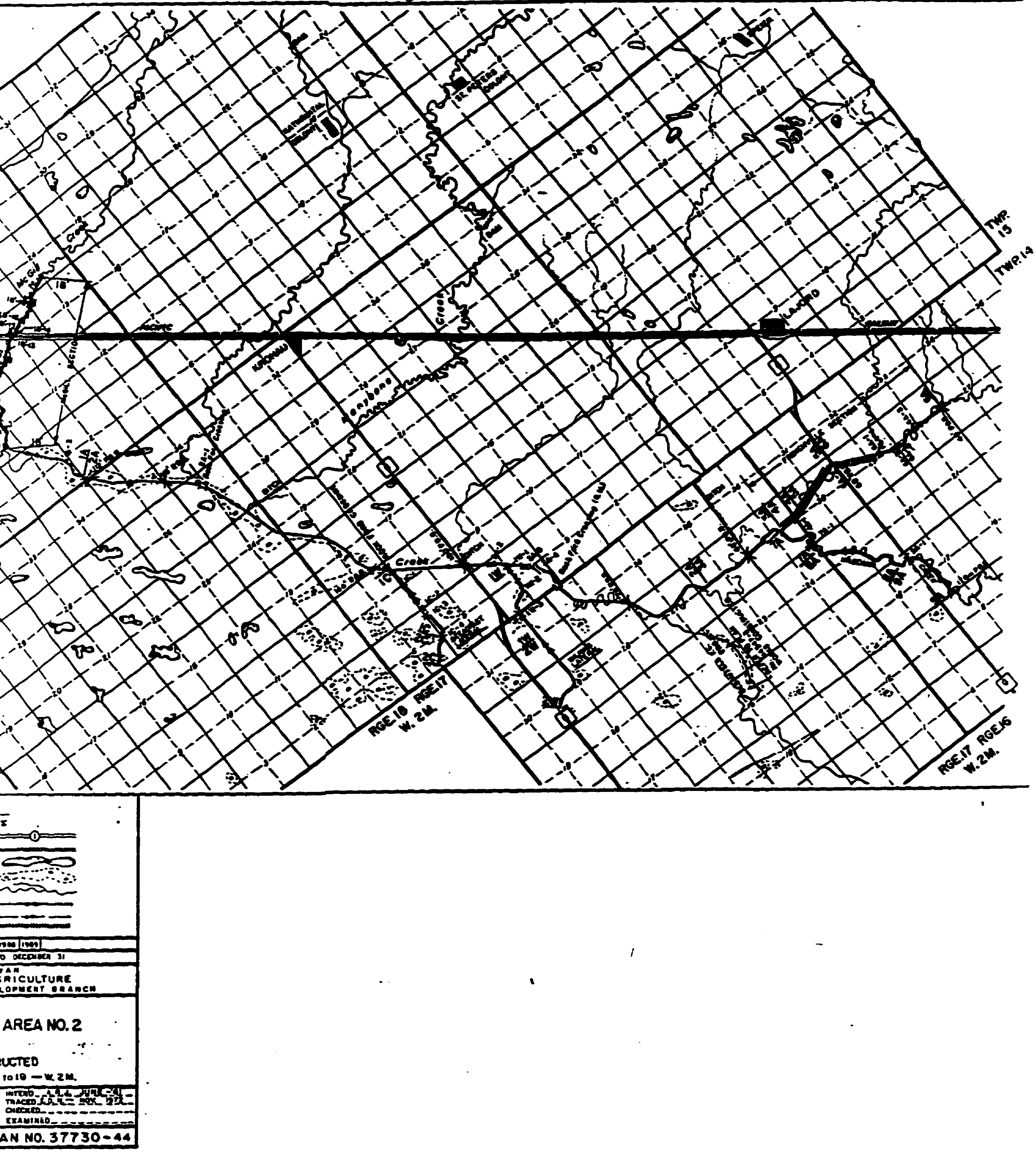
3. Wascana Creek is generally a third-order stream class heirarchically, but displays few third-order morphological or habitat attributes because much of the drainage system has been human constructed. While Wascana Creek still receives the runoff from the incipient waterways and second-order tributaries, much of the flow at the side laterals has been influenced by channelization and contains a heavy sediment load from upstream.

Drainage for farmers in areas such as the RM of Sherwood (with the Stice and Rowatt Sloughs), as well as the RM of Lajord's Kronau Marsh, has remained a problem in wet spring seasons and heavy summer rainfall events. To address the flooding problem in this part of the watershed, extensive drainage and channelization was initiated in the 1950's (Heise, 1997). Straight-line drainage corridors were constructed to act as minor tributaries down ditches and road allowances to expedite drainage. As soil particles are dislodged and transported to a channel for downstream movement, they pick up momentum and form small rivulets which through turbulence, dislodge other soil particles. Without a change in the direction of flow to slow the velocity of the water, or pooling and riffling along the drainage corridor, the bed and banks of the channel deepen to form gullies and eroded ditches (Parsons and Abrahams, 1993).

The Wascana Conservation and Development Area was the second of 172 current watershed associations formed (following the Souris C & D Area) to address the problems of agricultural land flooding in Saskatchewan. As a result, most of the lower reach of the stream corridor of Wascana Creek from the City of Regina boundary upstream for approximately 40 km is a constructed watercourse with very little riparian maintenance (Grigg, 1997). Construction of the channel was designed to create an improved major drainage corridor through the flats to remove water as efficiently as possible at a time when habitat and water quality issues were not weighed against increasing cultivated acreages for higher yields. The drainage works of the Wascana Conservation and Development Area are illustrated on the following page (Illustration 3.2.5).

ILLUSTRATION 3.2.5 -




TWP. 15
TWP. 14
LAJORD
RGE.18 RGE.17
W. 2M.
RGE.17 RGE.16
W. 2M.
RICULTURE
AREA NO. 2
UCTED
AN NO. 37730-44

At the junctions of the second-order side laterals into Wascana Creek, riparian growth is negligible or at a bare minimum to allow for maximum cultivation up to the edge of the watercourse following spring high water levels. Subsequent rainfall events which elevate water levels again in the creek, lap at the edges of the cultivated laterals and carry away topsoil in summer. Erosion at the locations of both natural and constructed side laterals is a significant problem because large gullies develop in the spring and early summer due to unstable sideslopes. The channeling of large volumes of water rapidly from agricultural land into straight-line v-ditches (ditches with sharp slopes and very narrow, pointed bottoms) with little or no riparian growth create headward gulley augmentation at Wascana Creek side laterals and higher soil transport volumes.

Early summer heavy rainfall events are known to be the primary cause of soil erosion because the erosion intensity of the raindrop is able to dislodge soil particles and move them the greatest distance as surface water collects and flows into the drainage network. Spring runoff occurs while much of the soil is still frozen, and is barely significant in calculating major erosion because soil particles are not exposed to the energy of the large, falling raindrops (Ripley et al., 1961). The majority of the silt which enters the watercourse via spring runoff in the Upper Wascana watershed generally drops out at Kronau Marsh (labelled "muskeg" in Illustration 3.2.5) as the flow velocity diminishes.

As spring water levels subside on the flats, the watercourse finds a more direct route of passage through the Wascana drainage corridor. Therefore, the assumed deposition in the marsh may not be as high during late spring and early summer storm events, and sediment is likely transported further downstream during these periods. Silt deposited on the flats at spring melt is likely dislodged with ease and carried further down the watercourse toward Wascana Lake, though in substantially smaller amounts than what is initially eroded from upstream. Presently, the channel immediately upstream from the Wascana Lake is not adequately grassed or maintained to decrease flow velocities or sedimentation.

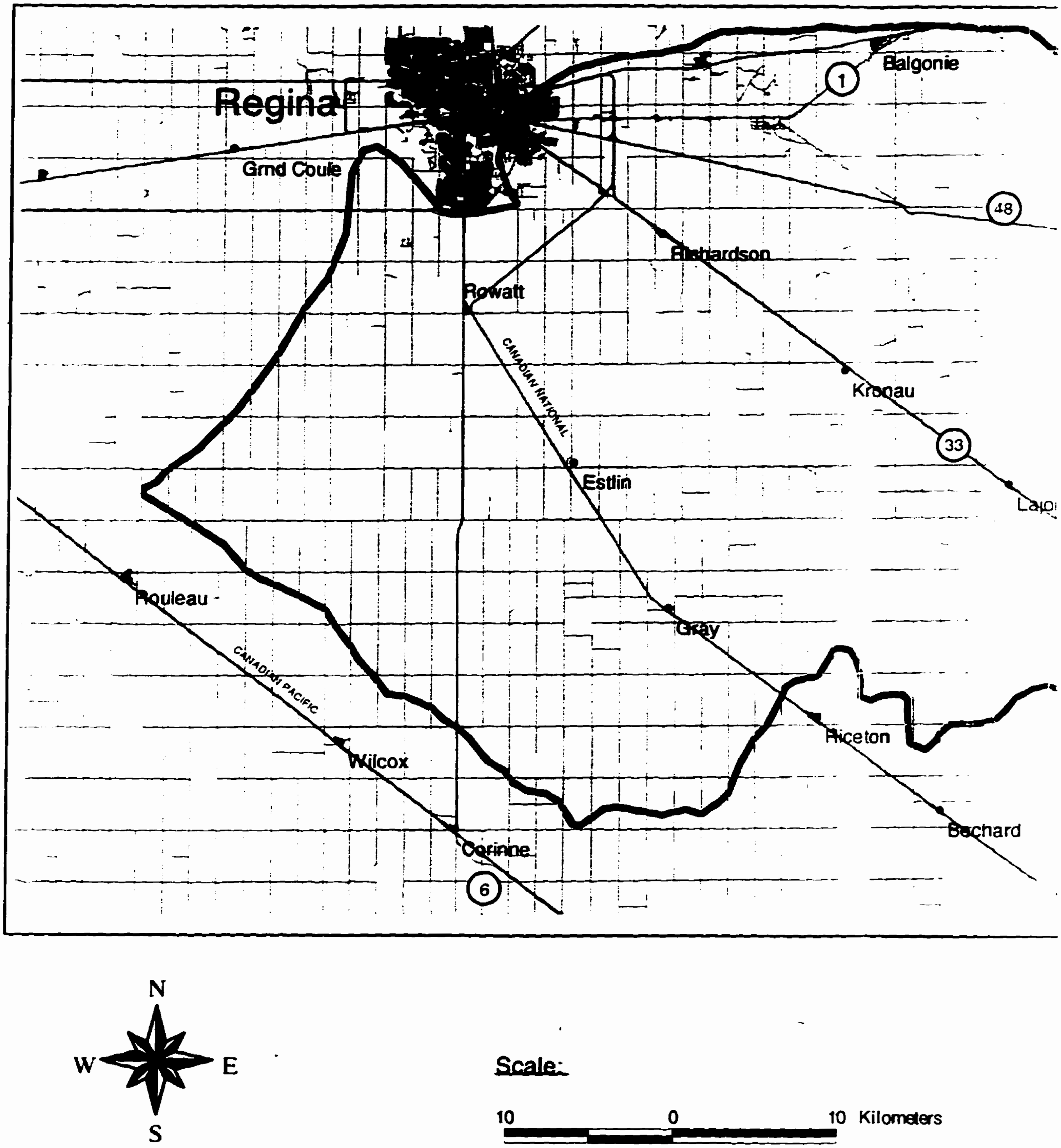
The desire to free any agricultural land of standing water has traditionally been the goal of many farmers. In more undulating terrain, depressional areas collect water and constitute marshlands, gradually recharging groundwater aquifers through seepage. Subsurface aquifers are an important source of drinking water to many rural communities and farms that are not near a surficial stream or river. Since the time of settlement, over 40% of Saskatchewan's wetlands have been lost, in most cases due to individual agricultural land drainage projects (Government of Saskatchewan, 1996).

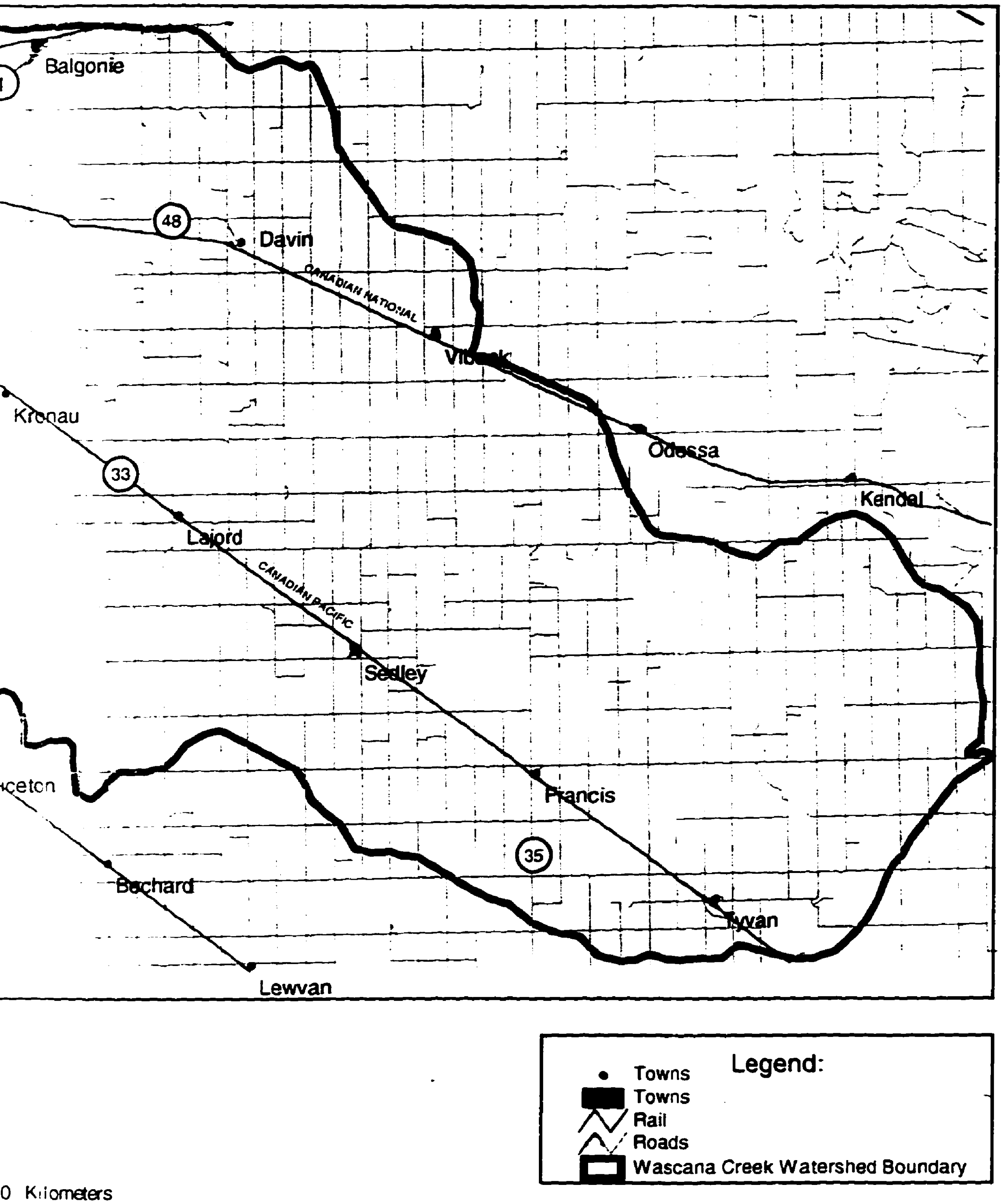
3.2.6 Land Use Changes and Development

Changes to land use in the watershed as a result of development have generally not been significant. As seen on the locational maps, village settlement makes up very little of the land use compared to the agricultural functions. White City, a bedroom community east of the City of Regina on the Trans-Canada highway, has seen expansion to its residential area, the construction of the new Emerald Park Golf and Country Club, and the Great Plains Industrial Park (Armstrong, 1997). The entire land area covers 2½ sections of land, a portion of which contributes to drainage received by incipient waterways.

Road construction has the potential to dislodge high amounts of soil and contribute to the problem of increased sediment transport. Following the culvert installation and ditch sculpting which accompanies road construction, there often is little effort made to re-grass ditches. This has great potential for soil transport because surface run-off from the road surface erodes the unstable edges of the new road as it creates rills into the ditches. Rapidly moving water from culverts can scour out large gullies as water gushes into the ditches. Most construction occurs in the summer months when heavy rainfall events occur, and can contribute to sediment loading if extensive road work is taking place (Cameron et al., 1992).

ILLUSTRATION 3.2.6
Road and Rail Network





Produced By Jo Ashley 06/97

Although minimal monitoring and research has been initiated regarding specific volumes of sediment dislodged due to road construction, the physical evidence of roadside washout and water clouding is visually apparent near most road construction sites. Present-day road repairs or rebuilding projects down road allowances where Conservation and Development Area drainage channels exist contribute to sediment loading in the stream network. When built, the constructed channels and ditches were designed to move water as quickly as possible to the creek and therefore were not created with erosion control in mind. Road repairs along these existing channels and drainage ditches are very likely to contribute to soil loss unless there is immediate soil stabilization through re-grassing which retards the forward momentum of the water current.

Extensive road construction presently averages about one major re-surfacing or construction project per RM every 3-5 years and is assisted by provincial funding. Due to fiscal constraints, many desired new projects have not been undertaken by municipalities because they are unable to fund them independently. The Department of Highways and Transportation completed construction of provincial highway #46 east of Balgonie. Three miles of the grid road north from White City to highway #46 was improved in 1996. A proposed gravel road improvement project east of provincial highway #6 may be undertaken in the RM of Sherwood if a road enhancement grant enables construction in the near future (Rollie, 1997).

In the lower reaches of the watershed closest to Regina, runoff through natural corridors on the extremely flat land surface were altered due to the construction of the Trans-Canada highway (Rollie, 1997). Drainage studies have shown that in the RM of Sherwood, standing water in the Stice Slough region used to drain to the north and into Wascana Creek downstream of the Albert Street weir. Lands to the south and east (Rowatt region) were also susceptible to surface retention, and were subsequently channelized in the late 1950's and 1960's to expedite drainage through the Conservation and Development (C & D) Areas program. Few water retention or riparian restoration projects have been attempted in the region except for the Tyvan water supply reservoir at the extreme southern bend in the Wascana's watercourse, and the Oyama Regional Park reservoir on Manybone Creek east of Kronau.

Worthy of note however, has been the alteration of natural marshlands to farmable agricultural land (Government of Saskatchewan, 1996). It is not known exactly how many acres have been converted, or how many new cultivated acres begin to be farmed on an annual basis. When drained, wetlands become cultivated depressions, and feed incipient waterways which are often already unprotected from erosion. The entire hierarchy of the stream system becomes altered by the increased ephemeral flows, resulting in increased incidences of gulley erosion along the watercourse, and sheet erosion in the location of the former wetland prior to new seeded growth (as the low-lying areas take longer to dry for seeding).

The monitoring of wetland drainage has been piecemeal, and enforcement of conservation guidelines minimal. The individual farmer often views the wetland area as more potential farmland for cropped acreage, the long-term result often sees more expense to the individual farmer due to a loss of soil and decrease in total yield from lost organic matter and nutrients.

3.3 FIELD OBSERVATIONS

Field visits to the study area, in September of 1996, and in February and May of 1997 provided a chance to note localized land use concerns from municipal officials, agrologists, and hydrologists. Aerial photographs were used in conjunction with local expertise to identify the watershed drainage network and significant land use changes. Six of the nine municipalities in the watershed were contacted; their comments regarding reported soil loss or drainage problems in their municipalities are noted in Section 3.3.1. The remaining three municipalities constitute less than 10% of the land in the watershed when combined and were not contacted. (Appendix 8.3.7 lists all of their names and contact numbers.)

3.3.1 Rural Municipality Comments

The municipal administrators/planners from Sherwood, Bratt's Lake, Edenwold, Lajord, Francis and Wellington stated that drainage in the spring, or following heavy rainfall events was of greater concern to area farmers than soil loss. Edenwold commented on gravel pits near Balgonie which had been a problem addressed in 1996 because of water erosion, but was deemed a one-time occurrence. No expenditures or subsidies were issued by the municipalities for work related to decreasing soil loss as it was deemed to be the jurisdiction of SaskWater, the provincial association in charge of Saskatchewan water resources.

The office of the extension agrologist in Indian Head confirmed that a very slow shift in farming practices has gradually been occurring toward continuous cropping and zero-till, thereby increasing soil stability. Unfortunately, soil loss continues to increase where cultivation still occurs across waterways and where wetlands are incorporated into seeded acreage.

3.3.2 Aerial Photograph Use

Aerial photographs were analyzed to register any important recent changes to land use and inquire about their significance from SaskWater in Weyburn. Of special concern were changes in the numbers of wetlands and yearly variations in cultivated field depressions. SaskWater has a mandate to ensure that unauthorized drainage is not permitted, but admits that it is difficult to police the vast land area of the province with its current staffing, other necessary project work and administrative requirements. It therefore tries to ensure that farmers are made aware of the implications of cultivating through wetland areas and incipient waterways, realizing the volatility of telling farmers what they should not do with their own lands.

In many cases, monitoring waterway cultivation and wetland clearing is made extremely difficult from season to season with inconsistencies from farmers due to wet and dry weather patterns. Ducks Unlimited has recently undertaken a cataloguing project to attempt to map and record all of the designated wetlands in the province of Saskatchewan. To date there is no record of where natural wetlands once existed or a tracking of which ones are currently disappearing or re-appearing on privately owned farmland. Aerial photos allow for a general approximation, but in most cases do not date back further than 15-20 years and do not comprise complete inventories.

4.0 SEDIMENT LOADING AND PROBLEM AREAS

4.1 CALCULATION OF SOIL LOSS

Since the first civilizations, humans have exploited their natural resources and have paid the price of drought and famine where soil and water conservation was not practiced. Soil depletion from the continual planting of the same crop, soil erosion by cultivated field runoff, and salt buildup in irrigated soils led to the abandonment of lands such as those of the ancient Mayas in Central America and other ancient civilizations (Eblen, 1994). As the New World was being settled, the unlimited supply of new land appeared to exist in infinitum to replace the old land if it simply ran out.

Today, we have the opportunity to appraise how we manage our lands and identify our needs for the future to enable us to plan with greater efficiency and effectiveness in resource management and use (Van der Ryn and Cowan, 1996). Given the continued global increase in demand for food, it is as important now to our future to improve our land and water management practices as it should have been to the agrarians of ancient Central America. By accurately estimating the volumes of sediment lost from our farmlands each year, a better understanding of the results of reparative measures can be attained. Earlier in the century, procedures for erosion control could be likened more to home remedies than substantiated scientific knowledge (Troeh et al., 1991). In many cases, the results were good; in other cases, the control measures were excessive.

The design of erosion control strategies, whether policies or field projects, requires precision to get the best value for the dollar and to ensure that the purpose is being effectively fulfilled. George M. Browning of the American North Central Agricultural Experiment Station in Ames, Iowa has stated that:

> Overdesign of expensive water and erosion control structures to avoid failure under extreme conditions has used limited resources that might well have been used elsewhere. On the other hand, failure of large detention structures, for whatever reasons, has resulted in the loss of lives and millions of dollars in property.

With the technological tools available today, it is possible to scope problems more effectively and offer the most effective solutions.

Soil scientists and specialists working in agricultural research have discovered through years of testing that by understanding the relationship of erosion factors to each other, it is possible to accurately approximate soil loss volumes from agriculture land. Factors such as the amount and intensity of rainfall, the length and steepness of slope, the erodibility of soil, the cropping system being used, the management practices, and the diverse geographic conditions each affect soil loss resulting from sheet and rill erosion (Wischmeier and Mannering, 1969). The calculation of where and how much soil loss is occurring in a watershed enables effective solutions to be engaged. This does not negate the *common sense* approach to land management, rather reinforces it (Anderson et al., 1984).

The Upper Wascana Creek watershed has been well documented in terms of its erosion factors and qualitative field observations. The information that continues to accumulate from watershed improvement projects elsewhere demonstrates the positive results of watershed and land management improvements. Quantification of soil loss and the determination of where the greatest likelihood of erosion risk exists, are necessary to determine reparative measures. The effectiveness of these strategies can be monitored over time.

4.1.1 Universal Soil Loss Equation

The Universal Soil Loss Equation [USLE] was designed to predict annual soil loss from sheet and rill erosion (Wischmeier & Smith, 1965). Its purpose is to provide an estimate of the long-term average annual soil loss from segments of arable land under various cropping conditions. The use of this estimate is to allow agrologists, watershed planners, farmers and policy makers to select combinations of land use, cropping practice, soil conservation mechanisms, and policies, which will reduce soil loss to acceptable levels and make farming a more sustainable activity.

The USLE estimates average annual soil loss using the equation:

$$A = R \times K \times LS \times C \times P$$

where:

A is the average annual soil loss in tonnes per hectare
R is a measure of the erosive forces of rainfall and runoff
K is the soil erodibility factor - a number which reflects the susceptibility of a soil type to erosion, that is it is the reciprocal of soil resistance to erosion
L is the length factor, a ratio which compares the soil loss with that from a field of specified length of 22.6 metres
S is the slope factor, a ratio which compares the soil loss with that from a field of specified slope of 9%
C is a crop management factor - a ratio which compares the soil loss with that from a field under a standard treatment of cultivated bare fallow
P is the conservation practice factor - a ratio which compares the soil loss with that from a field with no conservation practice, (e.g. ploughing up and down the slope).

For the Upper Wascana Creek watershed, we know that there are 5160 quarter sections of land that slope downward in some degree into the creek basin and contribute to the runoff. Each quarter section has its own attributes from which the average annual soil loss in tonnes per hectare may be calculated. By placing values into the USLE, it is possible to obtain estimates of how much annual soil loss occurs from each unit of land given the unique combination of characteristics for each quarter section. When it is known whether the rate of soil loss is greater or less than the rate of soil regeneration, it can be determined whether soil conservation measures need to be considered for that particular land unit or adjacent quarter sections. The calculated value of *A* is therefore an indicator of what the soil losses under certain conditions are likely to be.

4.1.2 Limitations of the Equation

Hudson (1995) states that there are limitations to the use of the equation and it should therefore not be criticized for:

- Predicting sediment total yield from a watershed, because it does not include deposition and delivery ratios.
- Predicting soil loss from a single storm, because the factors are all long-term averages which smooth out the large variations.
- Predicting soil loss outside the range of its own database (for example, the slope factor has only been experimentally determined up to 16%, and extrapolation beyond this should be tested by experimental studies).
- Predicting soil loss in concentrated channel flows or ephemeral gullies.
- Predicting sediment movement in streams and rivers.
- Predicting the deposition of eroded soil.
- Separating the factors as if they were each independent. Wischmeier says: 'The relation of a particular parameter to soil loss is often appreciably influenced by the levels at which other parameters are present. To the extent that these interaction effects could be evaluated from existing data, they are reflected in the equation through the established procedures for computing local factor values. Factor *R* reflects the interaction of storm size and rain intensities.'
- Being used as a precise research tool to study the processes of erosion by treating it as a mathematical equation which can be solved for one of the input factors (for example, by measuring soil loss, estimating all the factors but *K*, and then solving for *K*.

The USLE does not consider channel erosion or sediment yield from gullies, and may prove inaccurate when slopes and textures are extreme, *or* in areas where erosion is the result of overland flow without the force of rainfall (Peterson & Swan, 1979).

Despite the limitations, the USLE is a valuable vehicle in producing an erosion risk map of a watershed by calculating soil loss from individual units of land (e.g. sections, ¼ sections, etc.) and comparing them to each other in terms of their contribution to the over-all sediment loading of the watershed. In the case of the Upper Wascana Creek watershed, the erosion risk map is a very useful environmental planning tool for identifying the units of land which have the greatest chance of erosion in the watershed because of their attributes. These land unit areas can then be prioritized for receiving reparative attention in conjunction with the knowledge which exists about localized gulley erosion, channelization and wetland depreciation.

4.1.3 Gulley Erosion

Gullies are short drainage courses seldom longer than 100 metres, that indent the landscape with a broad cross-section and channel runoff from catchment areas often not larger than themselves. They appear in the steeper, higher walls of the tributaries and junctions to the creek and are sometimes cultivated by farmers. Where cultivation occurs, the gullies continue to grow headward. With each runoff event, whether snowmelt or rainfall, a small channel incises along the floor, in the order of 0.2 x 0.5 metres (Cameron et al., 1992). With seasonal re-cultivation, the channel is filled in again with sideslope soil drawn down into the gulley. The gulley subsequently continues to increase in size, aided by the cultivation of the farmer.

The measurement of erosion in gullies was attempted in the Avonlea Creek Sediment Loading Study prepared by NORMAC, A.E.S. Ltd. in 1992 using the Ephemeral Gulley Erosion Model (United States Department of Agriculture, 1988). Their results showed the value of using this modeling technique on small sideslopes, but greater inaccuracies as the longer runs and ditches were entered into their database. Generally, the anticipated behavior of gullies was confirmed by their modeling that erosion increased as slope-steepness increased, and erosion decreased as the cover management changed from fallow to cropped land to zero-till maintenance. A table detailing their results is included in Appendix 8.4.1.

4.2 GEOGRAPHICAL INFORMATION SYSTEM DATA MANIPULATION

The need to store, analyze and output intricate and voluminous environmental information has resulted in recent years to the utilization of computer programs for data handling and the creation of complex information systems (Tomlinson, 1976). Geographical information systems [GIS] are an essential tool for doing this, enabling very large volumes of spatial data to be manipulated and analyzed. They help decision makers and planners by demonstrating the options in conservation and development planning, and modeling complex interrelationships (Valenzuela, 1991). Planners also use it as an important tool to access earth science-related facts and combine the facts with various products to create decision alternatives (Star and Estes, 1989).

As a management tool, the GIS is very effective in handling the huge amounts of data needed for resource management and development plans. Geographic Information Systems consist of four basic components; data gathering and input, geographic databases, data analysis and modeling and data visualization, and presentation (Valenzuela, 1991). The launching of satellites into the atmosphere have enabled data to be gathered through photographs of the Earth's surface which show the many different types of land use, watercover and vegetation in almost all regions of the planet. The massive amounts of data from these remote sensing images can only be stored and analyzed through a GIS, and are becoming a very useful tool in depicting how changes in land use over time is affecting natural processes in the environment. The presentation component generally consists of the depiction of the analysis in map format representing a given area of land on the surface of the Earth. Today, a GIS allows for the rapid adjustment of variables in complex problems such as watershed management and planning.

In the Upper Wascana Creek watershed, there are 5,160 quarter sections of land which must individually have an A-value calculated via the Universal Soil Loss Equation by multiplying together the six categories of information that describe the various attributes. By inserting the values of the corresponding attributes into the USLE through the GIS, A-values for 5,160 quarter sections are calculated in a substantially shorter length of time from a manual input process. Further, because the A-value represents the soil loss from a given parcel of land over a one year period, it is possible to calculate the sum of all the quarter sections [ΣA] and state a total value of A for the entire watershed. This process would take many months to complete if it were attempted without the use of a GIS.

By understanding the relationship of the factors in the USLE to the product, it is often possible in the analysis stage to observe the effects of changes in the variables on the product [A-value]. In better understanding which factors can be effectively adjusted, planners can see more effective results through physical site changes at specific geographic locations in the watershed.

4.2.1 Erosion Risk Maps - Calculation Methodology

The Erosion Risk Maps were constructed by creating overlays from existing datasets and inserting values into the Universal Soil Loss Equation. The USLE was run for each individual quarter section of land defined by the watershed boundary. 5,160 quarter sections were run through the GIS establishing a soil loss value for each.

The watershed was defined by the topographical upper ridge at which point no creek, waterway, tributary, canal, channel or slough drained outward from the Upper Wascana Basin as defined by the Saskatchewan Property Management Corporation's [SPMC] *Central Survey and Mapping Agency*. These watershed boundaries were confirmed by the maps provided by SaskWater. Where the watershed boundary line crossed through a given quarter section of land, the quarter section was included as an active contributing cell to the watershed.

The rainfall erosivity index was assumed to be $594.1\frac{MJ\cdot mm}{ha\cdot h\cdot year}$ for the entire watershed based upon Environment Canada Climate Normals. Given the size of the watershed, there is little variation in the rainfall frequency over such a small area of a similar climate region. Each quarter section received this constant value in the USLE for the soil loss calculation.

The soil erodibility factor was calculated through value association with the soil categories provided by Agriculture Canada's *Semiarid Prairie Agricultural Research Centre* at the University of Saskatchewan in Saskatoon. Given the soil types from Rural Municipalities 96, 97, 126, 127, and the Regina Map Sheet, each quarter section was classified into a soil type category. The dominant soil type was assigned using the "has their centre in" command option, which assigned a certain soil type to a cell if its centre point was within the delineated soil region from the GIS map sheets.

The calculated K-values for specific soil types (refer to Appendix 8.3.2) were then subsequently assigned for each quarter section of land. Because soil attributes generally do not change rapidly over a period of time, the soil erodibility K-values remain constant for their respective quarter sections in the USLE calculation.

The slope length and steepness factors were derived from the SPMC topographic datasets and were also assumed to be constant for the purposes of the soil loss calculation because significant changes to slopes affecting entire quarter sections do not occur over short-term time periods unless natural disasters take place or there is human intervention.

The conservation practice factor is a rather crude factor in USLE calculations compared with the precision with which the other factors are calculated according to Hudson (1995). One of the reasons is that the effect of major surface manipulation such as graded channel terraces and similar practices cannot be adequately evaluated on smaller plots of land. Where the land is basically flat and farmed with the contour, as in the case of what is assumed to be almost all of the prairie farms, the P-value is said to be 1.0. In the soil loss calculations for the Upper Wascana Creek watershed, the practice factor was always assigned the value of 1.0 for each quarter section.

The primary purpose of the cover management factor is to reflect how much protection is given to the soil by the vegetative cover. By mapping the amounts of different types of land use and vegetative cover in specific locations, it is possible to locate where different types of activities occur and in what magnitude. The effects that human activities have on erosion can be approximated based upon the changes in land use and vegetative cover over a period of time. Records from previous land uses can therefore be compared to the present, to determine whether certain changes have resulted in positive or negative conservation of soil resources.

Taking inventory of all of the land cover characteristics and land uses for very large tracts of land has been simplified by the tools of sophisticated satellite remote sensing technology that records infrared, ultraviolet and visible wavelength reflections from the earth's surface. By classifying wavelengths into categories, land cover can be differentiated easily to assign coverage values. Ground truthing and aerial photographs are other methods from which datasets can be generated, but tend to take very long periods of time for analysis and have far less precision. Computerized satellite remote sensing data can be very beneficial to watershed planning because the land areas involved are often vast.

Unfortunately, there are only a handful of publicly-funded agencies in Canada which are able to provide this information for public research. Many of the bureaucrats at these public agencies are *very* possessive of this public information and do not willingly share it for education and research in the public interest beyond their own domains. The competitive market places a high value on this information because of the costs involved in obtaining the data from space, and makes it next to impossible for educational institutions or student researchers to afford one-time purchases. Therefore, it is in the best interests of both government agencies and universities to forge agreements ensuring that free and easy access to information can be obtained for common research purposes.

Because the vast majority of the Upper Wascana Creek watershed is used for agriculture, seeded acreage statistics were obtained from the Canadian Wheat Board [CWB] in lieu of the Satellite Remote Sensing data to indicate the number of acres that were farmed in a certain way across the watershed in a given year. By using the CWB totals from delivery points within and around the watershed, it was possible to determine the percentages of land which were cropped in a certain way around a given delivery point. These acreages are included in Appendix 8.4.2 as they are published by the CWB.

The calculated percentages are only spatially representative of the center point of each individual delivery point (Ashley, 1997). To determine the percentage of types of land use for quarter sections between delivery points, a process of interpolation calculates the average values between delivery points to spatially depict the approximate percentages of land use types for the land units within the watershed. Each quarter section is thereby broken down by percentage into land use categories theoretically representing the amount of land being used for each type and the sum of which totals 100%. The spatial parameters of specific land uses within a quarter section cannot be defined using this method.

A GIS kriging (interpolation) process predicted the value of all unsampled points which lay between the known delivery points. the original delivery point data was entered to construct a semivariogram indicative of the variance between sample point distances in the watershed. When choosing a kriging model that interpolates unit values closest to the actual range of values, the process which models closest to the actual semivariogram is chosen for more accuracy. The Linear Model was used in the kriging process to generate the interpolated C-values. An example of the 1960 summer fallow model is included in Appendix 8.4.3.

The C-values associated with different types of land cover (listed in Table 3.2.4) are multiplied by the calculated percentages of different land uses for the individual quarter sections. The products give an appropriate C-value weighting for each land use in the individual quarter sections based upon the CWB land use averages. The sum of the weighted averages depicts a C-value for each quarter section which can be used in the USLE.

The CWB values by themselves are deficient in accounting for some non-agricultural land uses needed in the USLE calculations. The CWB values do not account for tree groves, forest vegetation, watercover, sloughs, and impermeable asphalt surfaces. These cover types must be manually factored into the weighted averages per quarter section based upon their percentage of land coverage as depicted by polygons on the SPMC topographic maps.

The weighted-averages calculation which combines the CWB values and the additional land uses, does not accurately depict crop rotations (excluding continuous fallow). The CWB values are annual land use totals for one growing season, and therefore are representative of the land use for that seasonal period. The gradual shift that is known to be slowly occurring from a crop-fallow rotation to a continuous fallow rotation though, means that the number of fallowed acres in rotation has been slowly decreasing over the last four decades.

The effects of changes to land use and crop rotation on soil loss can only be represented by running the USLE for separate time periods and can only be done as far back in time as CWB statistics for delivery points are available. Subsequently, the first complete set of seeded acreages from the CWB was in 1960, and the most recent was in 1996. By calculating the soil loss for different time periods, it is possible to verify the effects of altered farming practices and land management strategies on sediment movement estimates in the watershed. The computed value of *A* in 1960 is substantially higher than the value of *A* in 1996, verifying that altered crop rotations have likely led to decreased soil losses. The continued increase in the *A-value* in 1975 suggests that land conservation initiatives did not begin producing significant decreases in soil loss until the late 70's and early 80's. Table 4.2.1 compares three estimated soil transport amounts in a period of 36 years, from 1960 to 1996:

TABLE 4.2.1
UPPER WASCANA CREEK WATERSHED
ESTIMATED SOIL TRANSPORT AMOUNTS

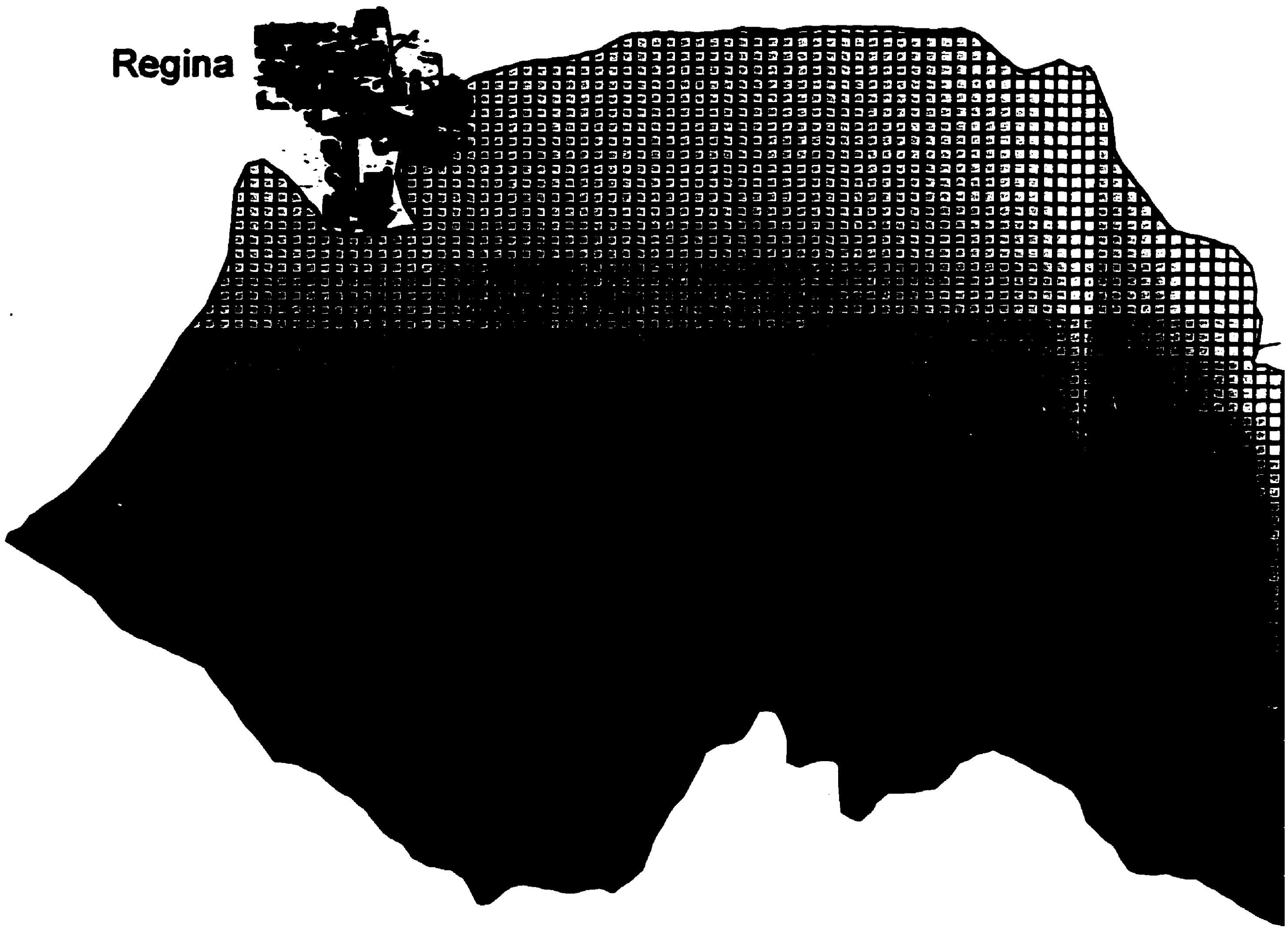
1960	19,276 tonnes
1975	21,068 tonnes
1996	13,972 tonnes

The combinations of erosion factors or attributes are what determine whether or not a plot of land will retain its existing volumes of soil or if it will be able to replenish depleting volumes by organic regeneration. By calculating soil-loss estimates (A-values) for each quarter section, it is possible to isolate areas where there is likely to be a high risk of erosion. Soil scientists have valued the equilibrium threshold at 11.2 tonnes/hectare/year - the rate that soil departure from a land unit due to erosion is counter-balanced by an equal rate of soil regeneration (Troeh et al., 1991).

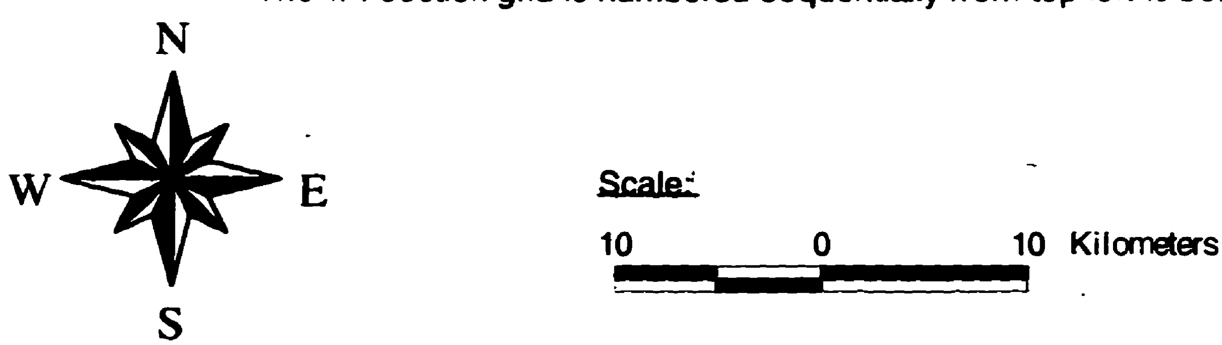
The Erosion Risk Map classifies the soil loss (A-values) into five categories: very low risk, low risk, medium risk, high risk, and very high risk - regarding their susceptibility to soil loss. These categories do not indicate what necessarily is *actually* happening, rather what the potential likelihood of occurrence is for each quarter section. Areas with a high or very high risk of erosion should be imminently addressed as areas where reparative watershed measures should be implemented and diligent monitoring of management strategies should be taking place. These areas area losing soil mass and organic material at a rate faster than regeneration is taking place. Because the risk map is created using the USLE, ephemeral gulley erosion is not considered in the calculation. Aerial photographs and ground truthing account for this deficiency in decisions regarding reparative measures and implementation of management strategies. The erosion risk maps for 1960, 1975, and 1996 are shown on the succeeding pages.

ILLUSTRATION 4.2.1a

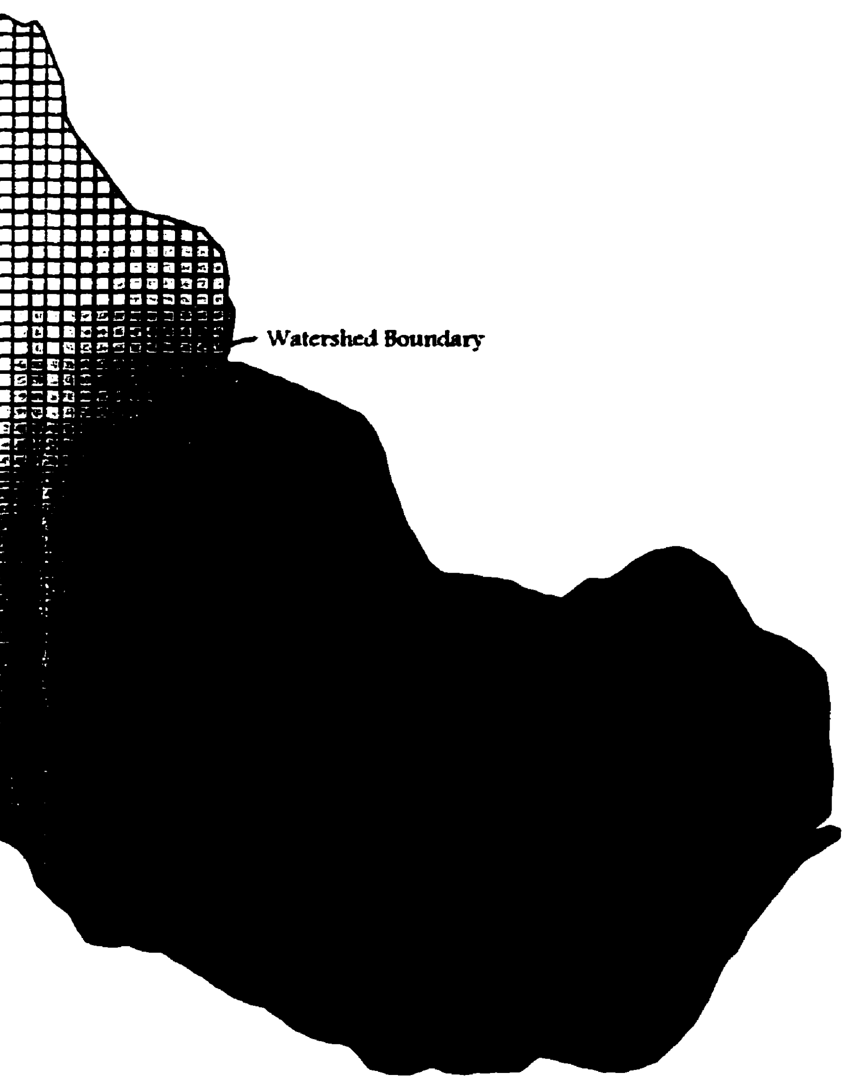
1/4 Section Grid Reference

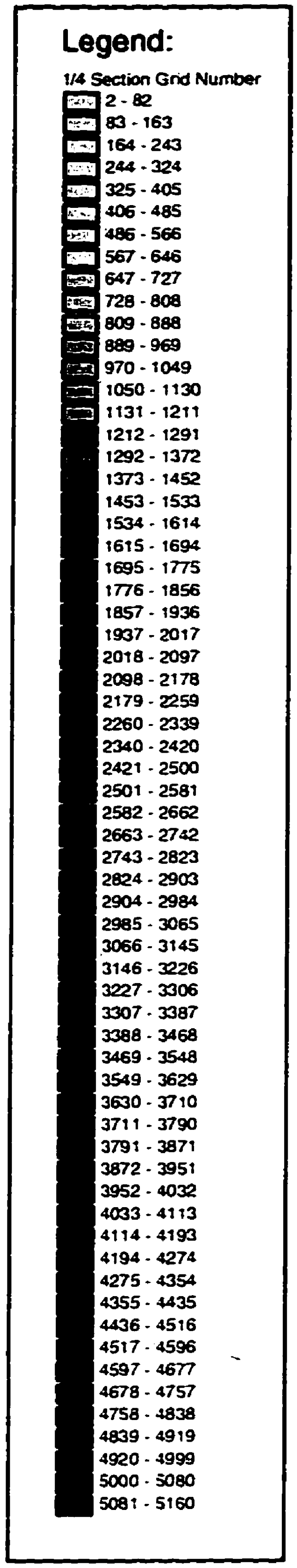


The 1/4 section grid is numbered sequentially from top left to bottom right.



rence





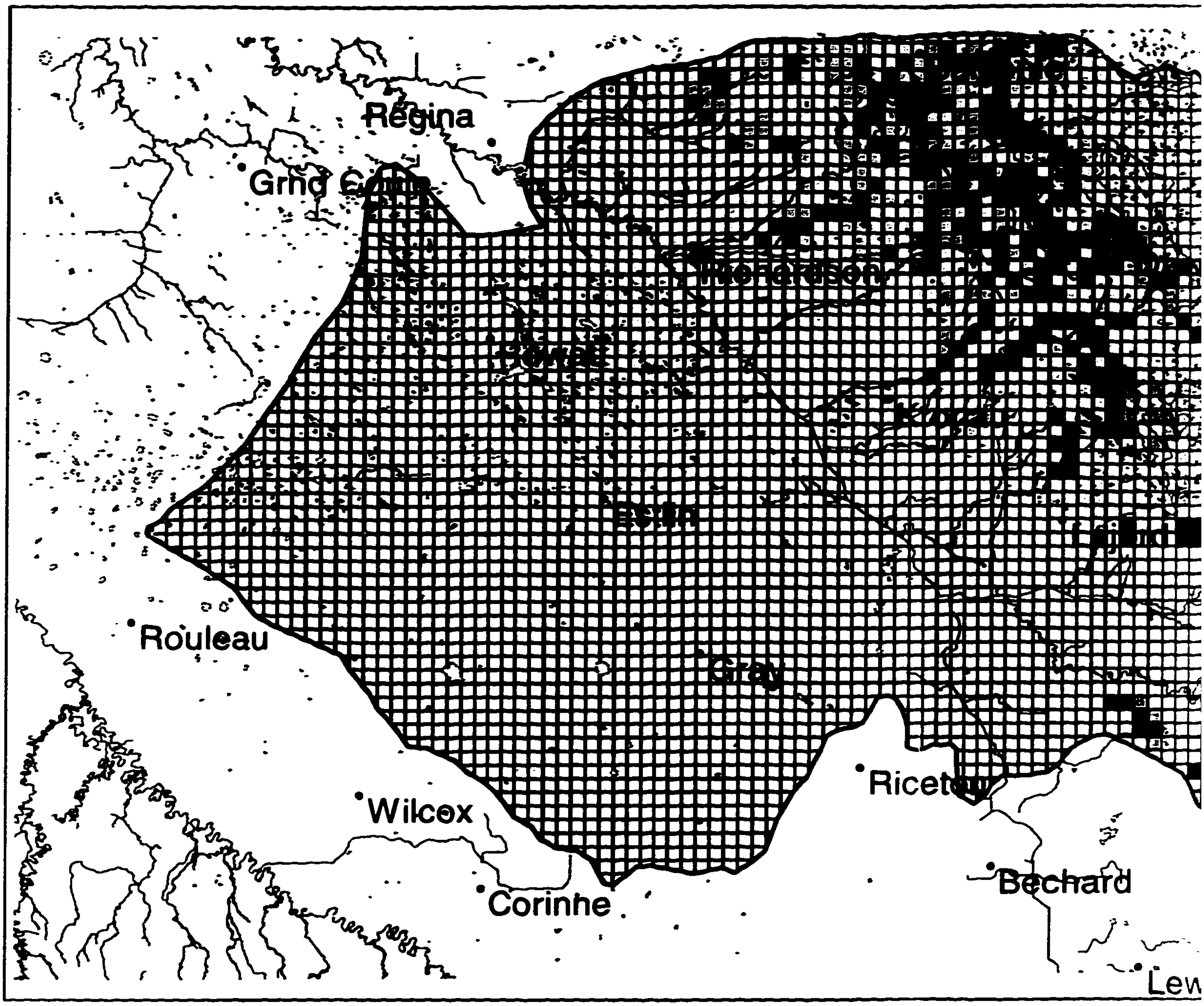
t to bottom right.

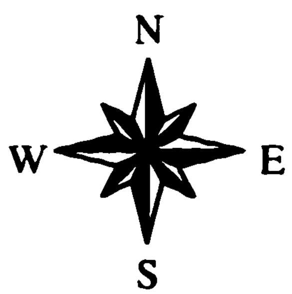
ometers

Produced By Jo Ashley 06/97

ILLUSTRATION 4.2.1b

Erosion Risk Map - 19





Scale:

10 0 10 Kilometers

k Map - 1960

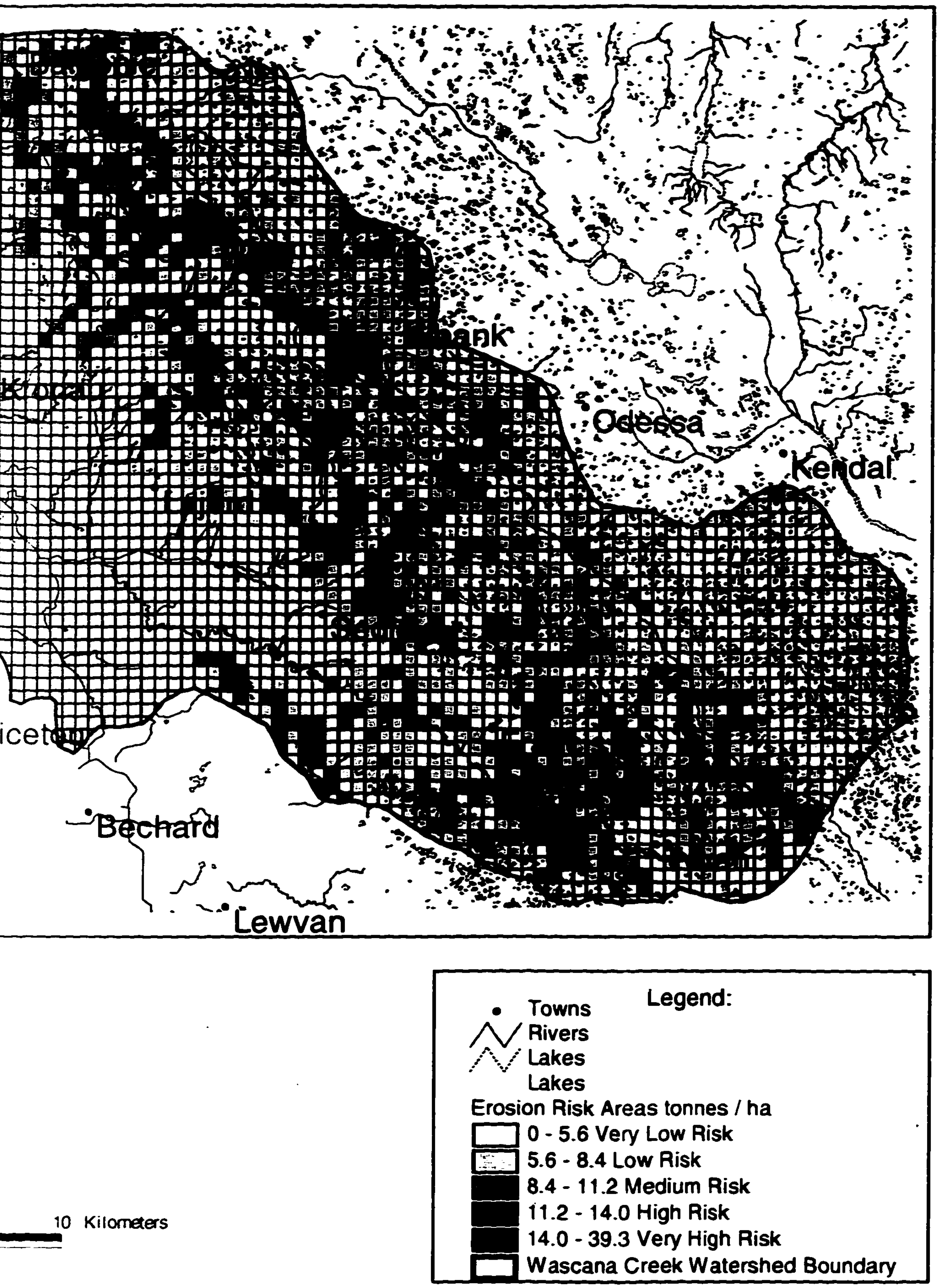


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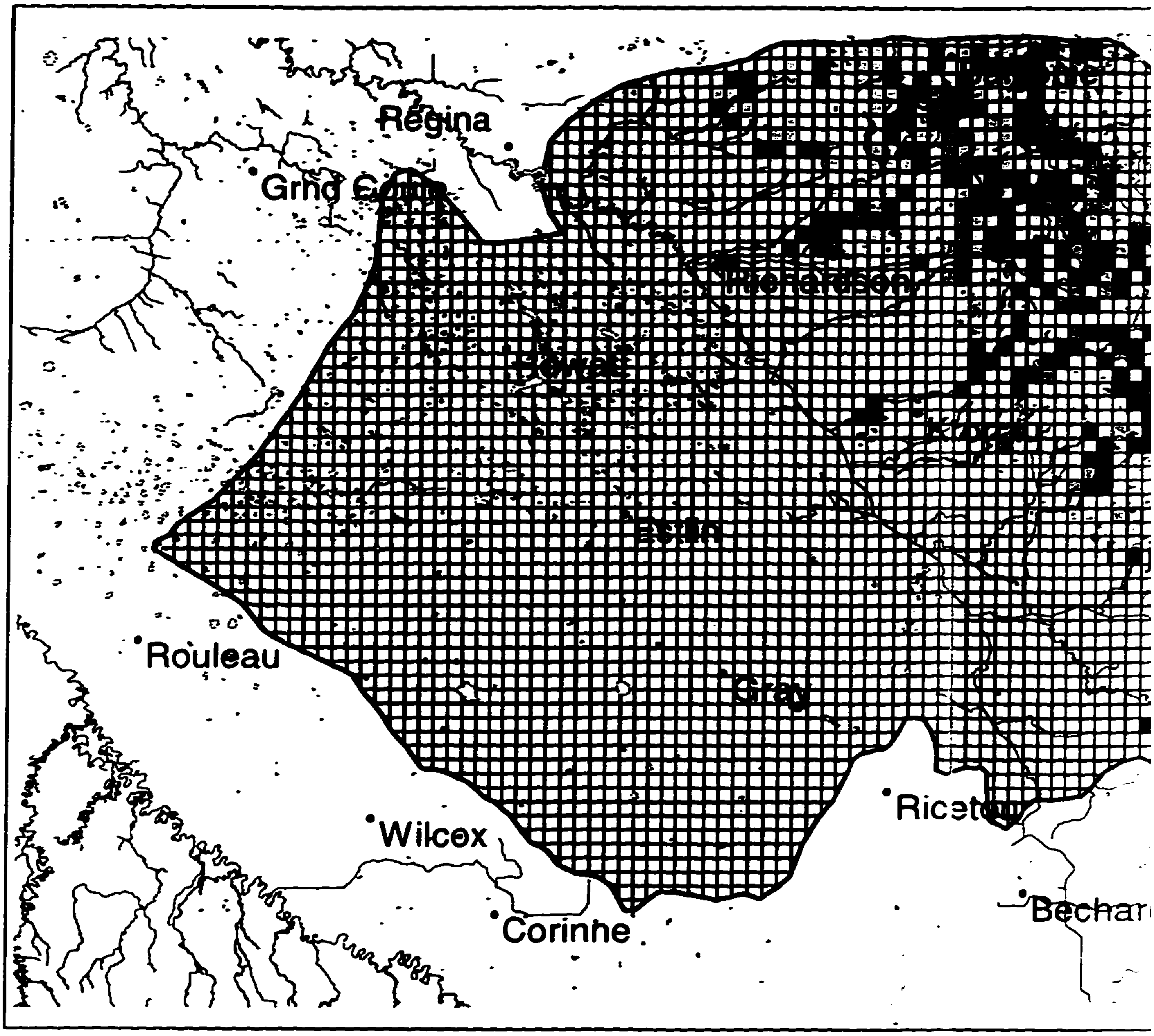
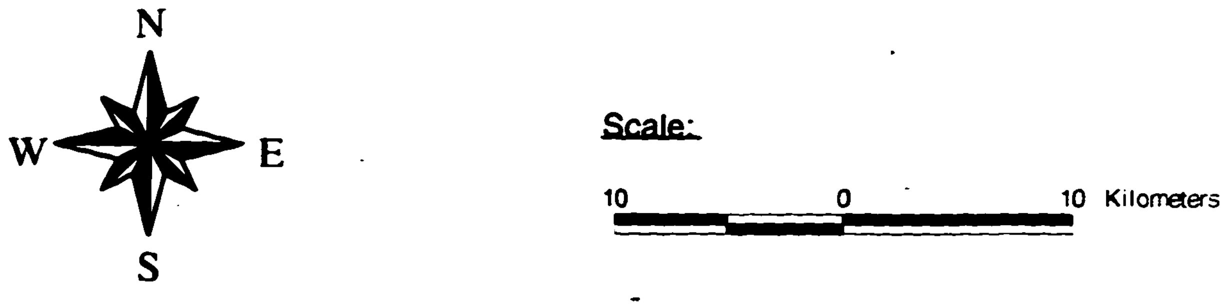
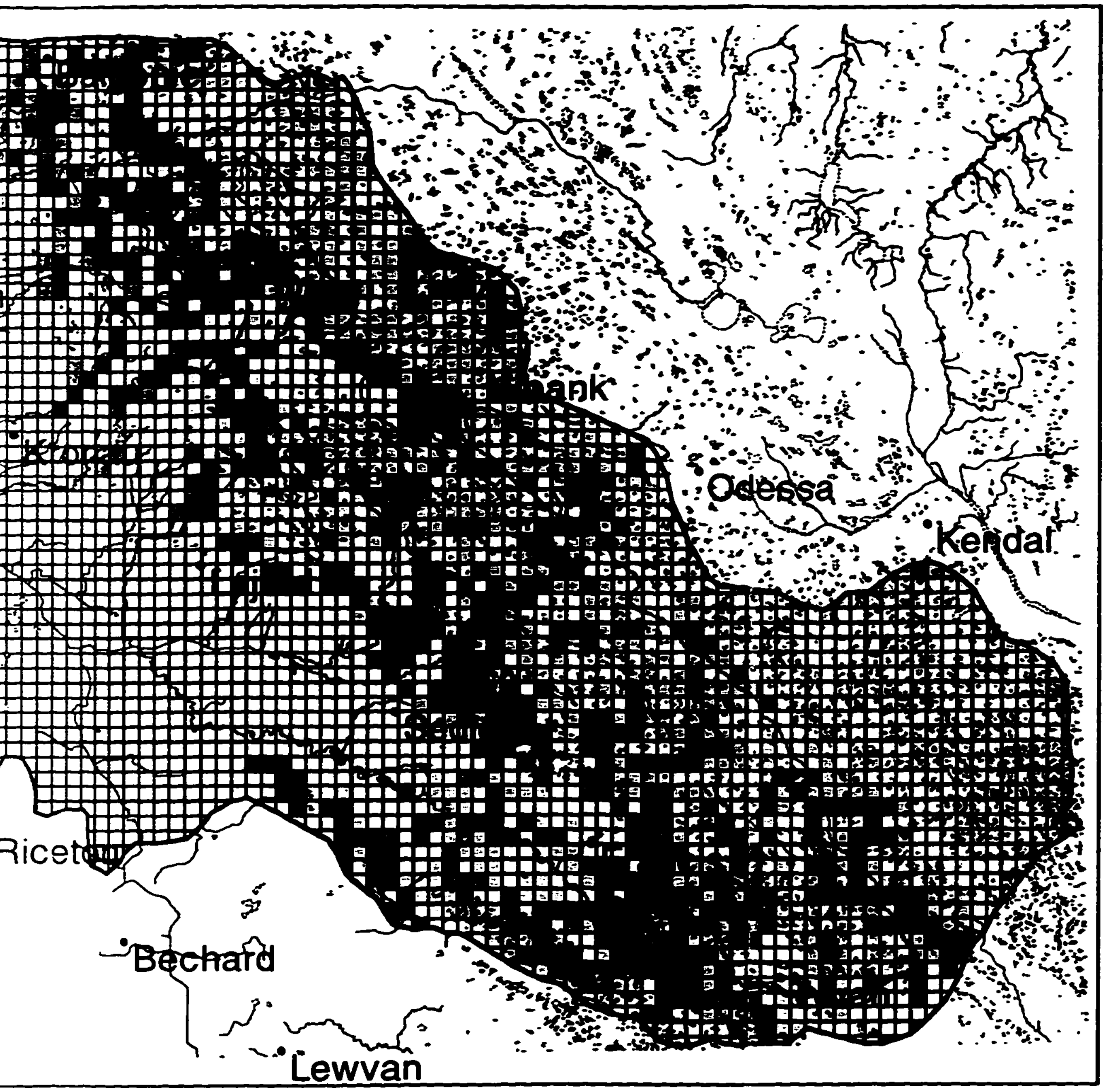
ILLUSTRATION 4.2.1c

Erosion Risk Map -





k Map - 1975



Legend:

- • Towns
- Rivers
- Lakes
- Lakes

Erosion Risk Areas tonnes / ha

- 0 - 5.6 Very Low Risk
- 5.6 - 8.4 Low Risk
- 8.4 - 11.2 Medium Risk
- 11.2 - 14.0 High Risk
- 14.0 - 42.1 Very High Risk
- Wascana Creek Watershed Boundary

10 Kilometers

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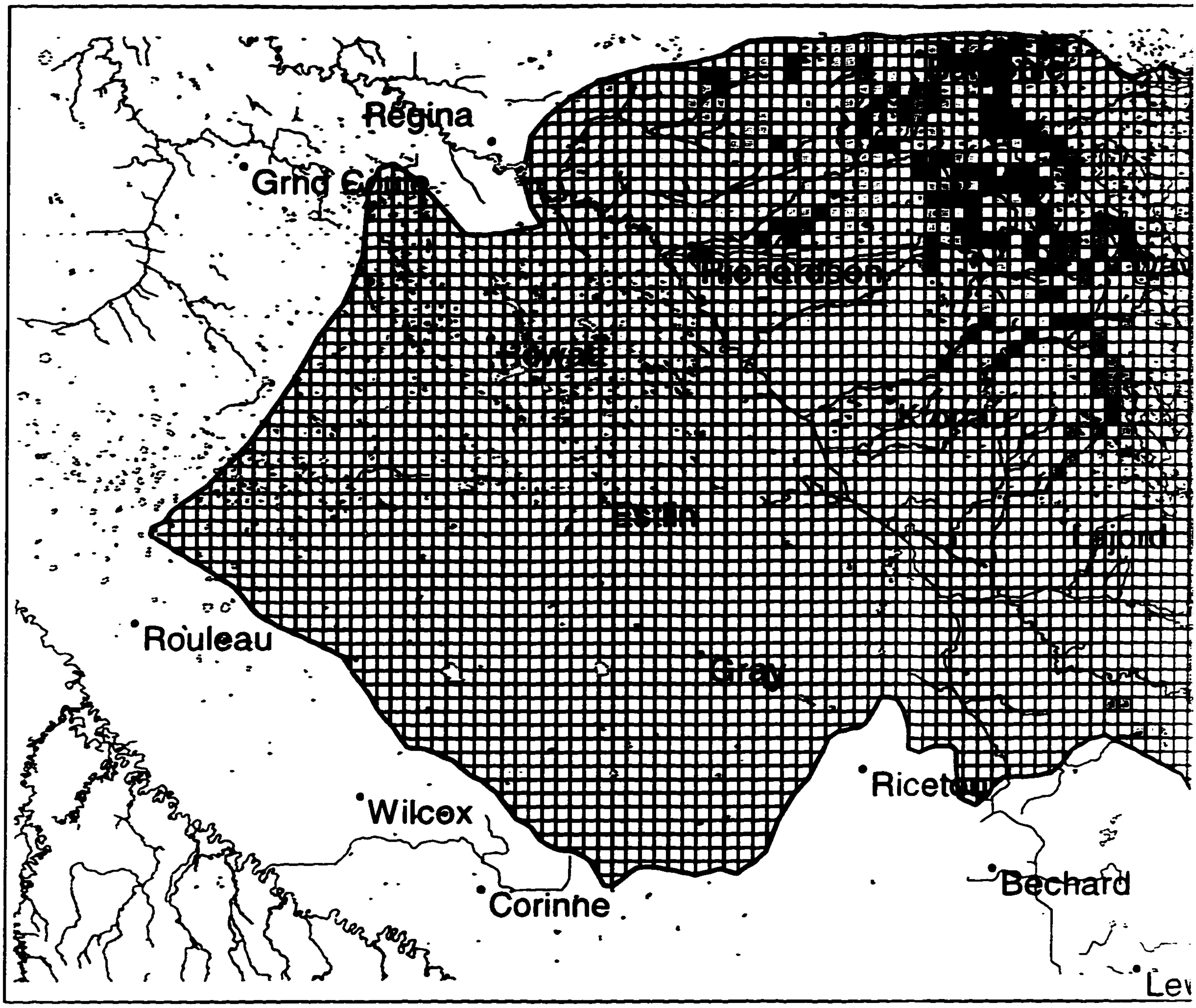
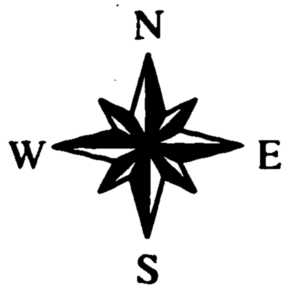
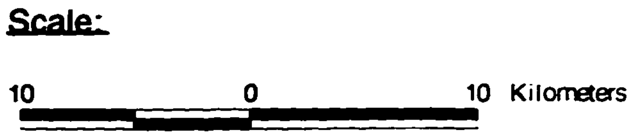
ILLUSTRATION 4.2.1d

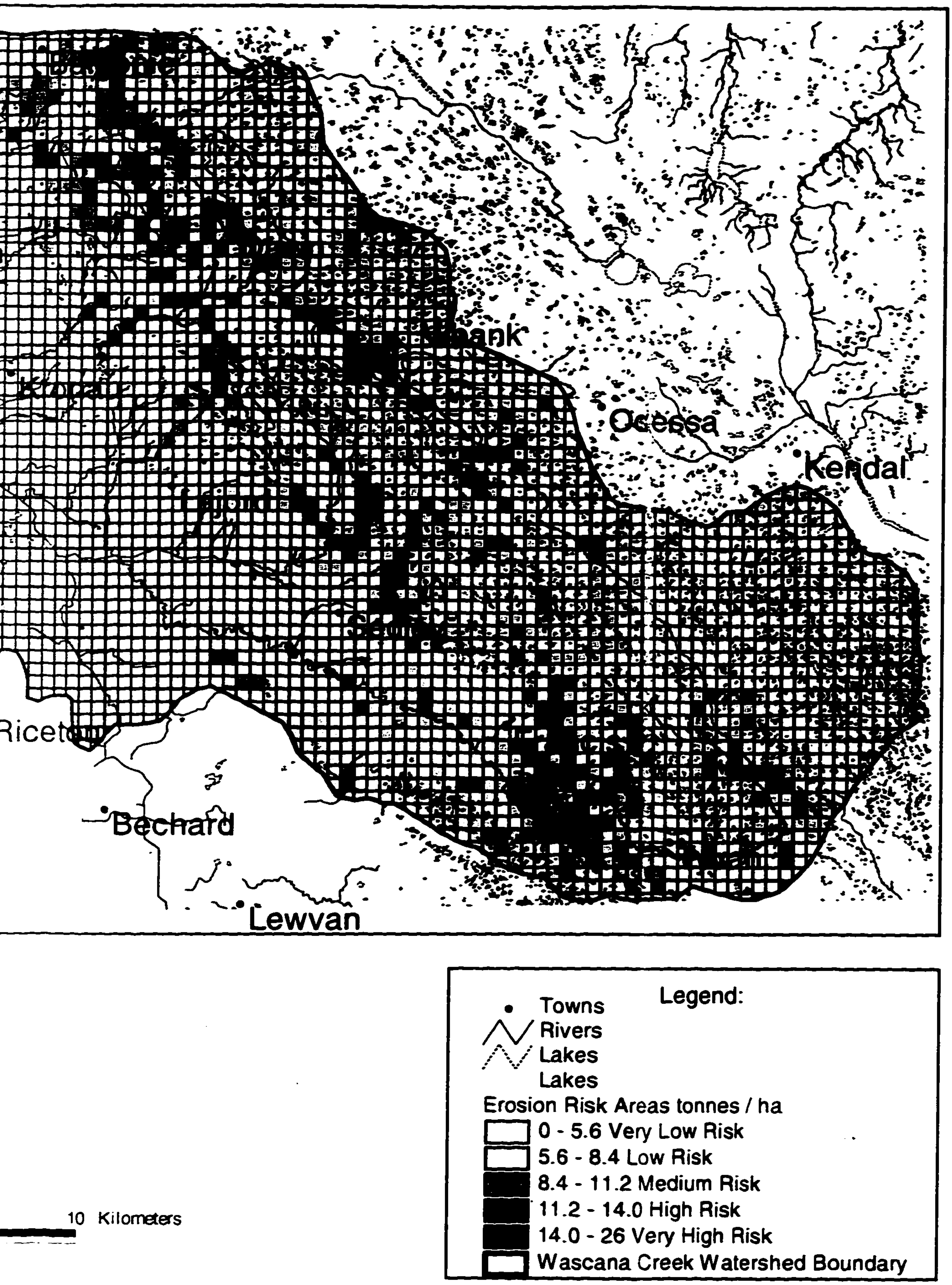
Erosion Risk Map - 19







k Map - 1996



Produced By Jo Ashley 06/97

Each cell on the Erosion Risk Map is the equivalent of one quarter section of land. The quarter sections within the Upper Wascana Creek watershed which are classified on the Erosion Risk Map are referenced in Appendix 8.6.1. The specific soil type values (K), cover management values (C) for 1960, 1975, and 1996, and specific calculated erosion risk values (A) for 1960, 1975 and 1996 are referenced for each individual quarter section in the watershed.

Erosion Risk Maps were produced for the three different time periods to illustrate the effects that cover management has had on the watershed in the last 36 years. The approximate midpoint where the most data was available between 1960-96 was 1975. Of significance is the fact that although soil loss has basically decreased uniformly over time as crop management has improved, the highest erosion risk locales have geographically remained constant. This indicates that factors such as topography and soil type also contribute to increasing the erosion risk in certain areas of the watershed.

4.2.2 Critical Variables of Erosion in the Watershed

The use of the Universal Soil Loss Equation for calculating the potential soil loss for each quarter section in the Upper Wascana Creek watershed requires the input of quantitative data for each of the six factors in the equation. As stated in the calculation methodology, the critical variables of erosion which humans have direct control over are the conservation practices (as they relate to the conservation practice factor calculation), and the cover management and land uses. Because the conservation practice factor is always assumed to be 1.0 in southern Saskatchewan, the cover management/land use factor is the critical variable for erosion control. It is therefore the way that the land is farmed, the types of crops that are grown, the crop rotation, how quickly surface water is drained, and how the waterways are maintained that determine how great the soil transportation rate will be.

It is difficult to quantify with accuracy what the effects of reparative measures would be on the sediment yield using the USLE because of the scale at which the equation is designed to be used. For example, isolated ephemeral gulley erosion is not adequately represented in the USLE because it usually occurs within a small portion of a quarter section at the locale of a tributary or incipient waterway. Yet gulley erosion and degradation of side laterals are significant contributors to sediment loading in prairie watersheds (United States Department of Agriculture, 1988). For greater precision in calculating gulley effects on sediment yield, these phenomena must be modeled using scientific modeling processes not factored into the USLE. The USLE is able to give an adequate overview of the watershed's susceptibility to water erosion.

Studies of other watersheds with their sediment control measures and riparian restoration initiatives provide insight into what tangible benefits have resulted from specific land use changes and remediation programs (Cameron et al., 1992). Following a land use change or program implementation, monitoring of sediment loading is essential to determine whether further improvements are necessary and to quantify the decrease in sediment transport.

4.2.3 Analysis of the Data Manipulation

The inflow of annual sediment to Wascana Lake is estimated to be 6,300 tonnes of annual sediment mass (Pentland, 1991). The sum of all *A*-values [$\sum A$] calculated for the quarter sections in the watershed theoretically total the amount of sediment lost from the watershed in one year. The fact that $\sum A$ does not equal the estimated 6,300 tonnes indicates that only a certain percentage of the total calculated annual sediment actually reaches the headwaters of the lake each year.

Erosion puts soil in motion but does not assume that every gram of soil mobilized into the watercourse will be carried to its resting place at the bottom of the watershed. Soil may be dislodged and then settle out of the watercourse only a few metres downstream if the flow velocity decreases substantially. The same particulate may then be mobilized again in a later rainfall event and be incrementally carried through the watershed. This dynamic process means that although topsoil is continually being lost from cropland, it does not get transported in its entirety through the watershed all at once. The USLE estimates the amount of soil dislodged and transported within the watershed, which is only a percentage of what makes its way to the headwaters of the lake annually.

Of the 13,972 tonnes (1996) of sediment estimated to move through the watershed each year, 6,300 tonnes reach Wascana Lake and are deposited there, resulting in the infill process. Since 1931, the lake has lost an estimated average of 2.0 metres of depth with very gradual improvements in farming practice and soil conservation over 65 years. At the average rate of 6,300 tonnes per year (which has likely fluctuated a great deal in 65 years), about 409,000 tonnes of sediment mass has hypothetically settled into the Wascana Lake reservoir. If the depth of the lake is therefore increased (either through deepening or shore raising) to 3.0 metres again, a conservative life expectancy of 60 years will return the lake to its 1996 depth assuming that no new land stewardship or soil conservation programs are initiated.

If the medium, high, and very high risk erosion quarter sections were targeted and reduced to yield levels less than or equal to 8.4 tonnes per year (considered to be 25% less than the soil regeneration rate, or low risk category), the sediment load in the watershed could be decreased by 7.6%. A reduction of 1,056 tonnes by improving land management and farming techniques could see the 6,300 annual tonnage reduced to 5,821 tonnes.

Through further riparian improvements in the stream corridor and watercourse design to retard sedimentation, the reduction of other forms of erosion potential such as gullies, streambank instability, and drained wetlands (prevalent, yet unaccounted for in the USLE calculations) could result in an additional sediment loading decrease of another 7.5% using a combination of initiatives (PFRA South Tobacco Creek Pilot Project, 1996). This further decrease would establish the sediment load target at 5,355 tonnes per year (a 15% decrease from the current estimated annual sediment load, if measured annually as an indicator).

By permanently decreasing the sediment load of Wascana Creek to 5,355 tonnes per year, the permanent rate of infill for an average diminished lake depth of 2.0 metres would be extended by 12 years. As outlined in Section 6.0, when adopted in conjunction with some form of lake deepening option (to be determined by the Wascana Centre Authority), sediment reduction initiatives and a watershed management plan decrease the frequency of any expensive deepening program by extending the 2.0 metre sedimentation rate to 77 years - an environmental and economic saving.

A realistic reduction of 15% of the present soil movement and displacement in the watershed through the implementation of permanent soil conservation and land stewardship initiatives would result in prolonged life expectancies for the lake. Because Wascana Lake is a human-constructed reservoir where sedimentation cannot be prevented, it is constantly in a process of reverting back to a prairie wetland state. It is therefore important to try to reduce the inflow of sediment to a level which allows for the effective regeneration of organic matter in the soil of the watershed, and maximize the life of the reservoir by increasing the time-span between major technical maneuvers that increase lake depth.

Specific reparative measures are outlined in the subsequent remediation section. These measures result in numerous tangible benefits to many aspects of the Saskatchewan economy and environment. Some of these include social capital investment with job creation in the region, savings in the agriculture sector due to soil conservation and better crop yields over the long-term, greater biodiversity from maintained habitat areas, improved water quality in both the creek and the lake, and continued tourism revenue in the City of Regina from the many visitors to Wascana Centre's permanent functions and special events. These reparative measures attempt to address the problem of sediment loading at its source through a feasible reduction of sediment volumes - the result being a greater compatibility between urban and rural land use functions.

5.0 REMEDIATION

5.1 NEED FOR CHANGES

Erosion is a natural entropic process which cannot be prevented, but the rate of which can be controlled by understanding the forces at work and the possible ways of countering them (Keeley and Walters, 1994). Changes to land management practices in the Upper Wascana Creek watershed are needed to decrease the amount of organic matter being transported downstream into Wascana Lake. Soil loss continues to decrease the productivity of land and cost the agriculture sector in decreased yields (Agriculture Canada, 1995). Erosion also results in unwanted deposition in other locations in the watershed such as the City of Regina.

The Erosion Risk Map is a tool designed to act as a spatial aid in defining areas which require reparative attention to reduce soil loss. The map indicates the areas of the watershed where there is a high likelihood of erosion presently occurring. In areas of undulating topography, land is generally at higher risk to erosion than areas on the flats to the west of Wascana Creek and south of Regina. Danger areas, or areas of higher risk, exist along the eastern region of the watershed (as shown on the 1996 erosion risk map). Because the risk map is a tool which estimates potential areas of high erosion, danger areas on the risk map can be verified with field visits to help ascertain which reparative measures would be best suited to various areas prior to any construction decisions.

Comparing the total amount of predicted sediment movement from the 1975 and 1996 computer-generated estimates, volumes of sediment being transported through the watershed have gradually decreased by about 33% over the 21 year period. According to Saskatchewan Agriculture (Tanner, 1997), the crop rotation has gradually been changing from a fallow rotation to continuous cropping, and has also involved decreasing numbers of new breakage areas. Yet in the Upper Wascana Creek Watershed, 44 quarter sections remain in the "very high risk" erosion category, 80 quarters are at "high risk", and 228 are at marginal or "medium risk" to erosion. This quantitatively indicates that there is still a need to engage in better land management practices in the watershed and more sustainable farming practices.

Given the results from other watershed improvement projects (such as the Tobacco Creek Watersheds initiative and the Dauphin Lake Stream Restoration project) permanent reductions of 10-15% in sediment loading over the short term (2-5 year period) can be achieved. A combination of ameliorative measures addressing road construction projects, waterway maintenance, farmland management, wetland conservation, and development controls must be implemented to reduce the amount of sediment in the watercourse.

5.1.1 Ditches and Road Work

Road construction is a contributor to sediment loading in the watershed because of the exposure of bare soil to rainfall and runoff (Cameron et al., 1992). Runoff from paved highway surfaces creates rills along the shoulders of the road and carry soil particles into the ditches. In the initial stages of construction, ditches should be sculpted so that top soil is graded to provide a gradual slope from the shoulder of the road through the base of the ditch.

Ditch sculpting must take the shape of a "U"-ditch to increase the amount of surficial resistance that runoff must encounter as it moves through a straight-line channel. "V"-ditches are usually created when ungrassed or cultivated channels are gullied by water flowing through them at a rate that carries away soil along the bottom of the ditch (Ripley et al., 1961). The V-ditch continues to deepen as water continues to erode into the centre of the ditch unless the soil is stabilized by forage. Following the completion of a road, excavated top soil should be replaced, and ditches and road allowances should be seeded to forage. The Department of Highways or municipal road crews must ensure that re-seeding of ditches occurs immediately following construction.

Farmers must be encouraged not to cultivate beyond the edge of their land into road allowance ditches. Routine cultivation along the edge of fields allows a peripheral lip to form around the edge of the field where water that is flowing down the slope of the field is arrested and often infiltrates or flows laterally on the surface. By not maintaining a routine cultivation pattern and infringing into the ditch, water gains momentum as it flows down the slope and into the ditches and subsequently carries top soil from the field. Top soil continues to be lost with succeeding tillage moving more top soil toward the ditch.

Cultivation into the road allowance also prohibits grasses from stabilizing the ditches. In areas of the Upper Wascana watershed where straight-line channels were designed to remove the water from the flats as quickly as possible, grass is vital to ensuring that sediment already in the watercourse is not allowed to agitate the soil in the channel and dislodge more particulate. Runoff moving through ditches dislodges sediment and contributes to increased sediment transport which usually settles near junctions in the road allowance or plugs culverts (Grigg, 1997). This contributes to increased expenses to the rural municipality in annual maintenance and construction costs which ultimately are borne by tax dollars.

5.1.2 Maintaining Waterways

Waterways are the topographical depressions through which water from within the watershed travels in its downstream path to the mouth of the creek (Parson and Abrahams, 1993). Natural riparian corridors have comparatively less erosion than constructed corridors because banks are covered by plant foliage which slows the speed of water and vegetative root systems which hold soil in place on the shore. The morphology of natural streams have been altered to straighten the channels and maximize the use of the recovered land for seeding. Because most areas of the drainage basin have been altered by drainage improvement projects or affected by unsustainable farming practices, several primary reparative measures must be enacted to reduce the causes of high sediment loading in the watercourse.

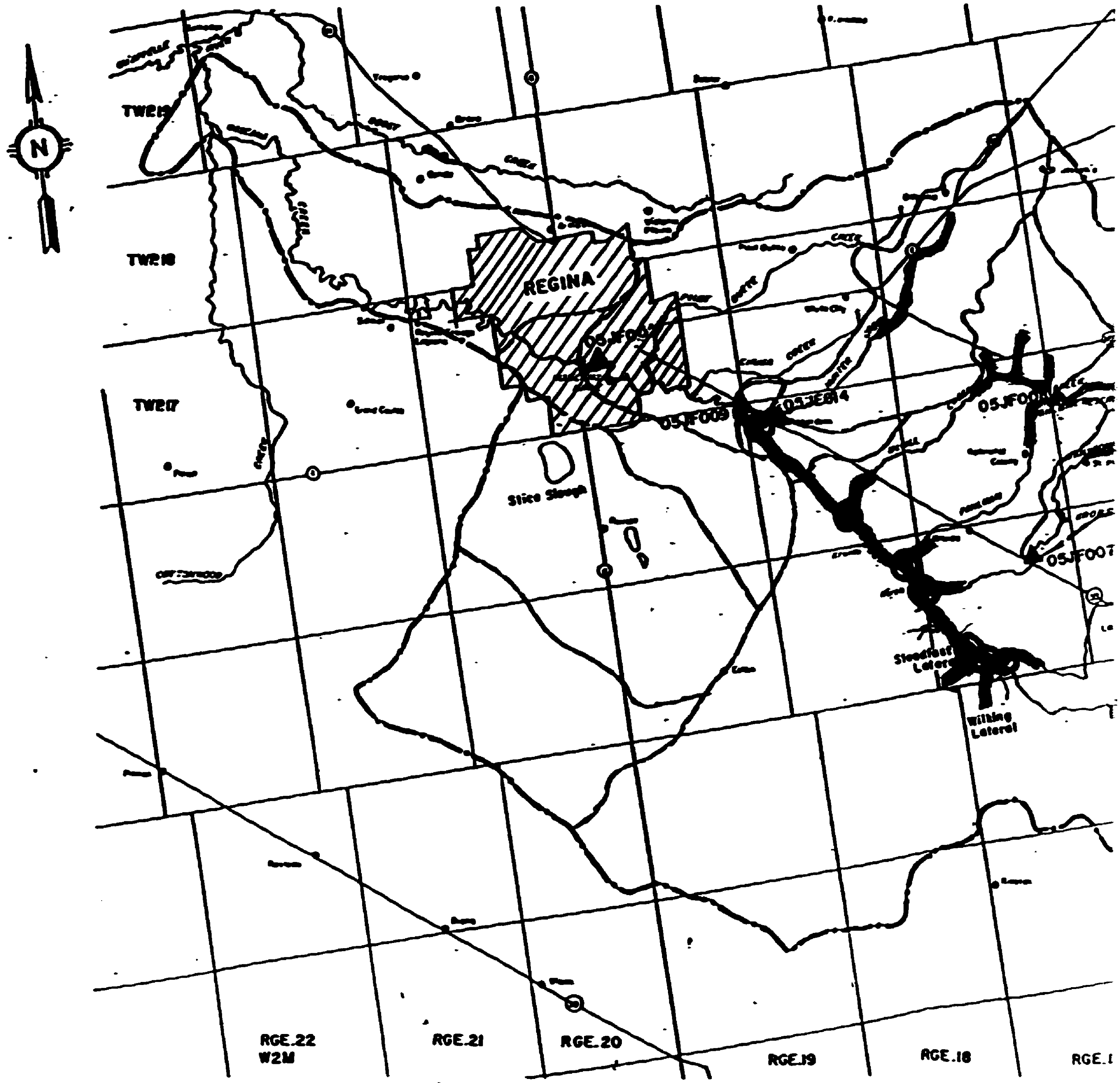
5.1.2.1 *Grassing of Waterways*

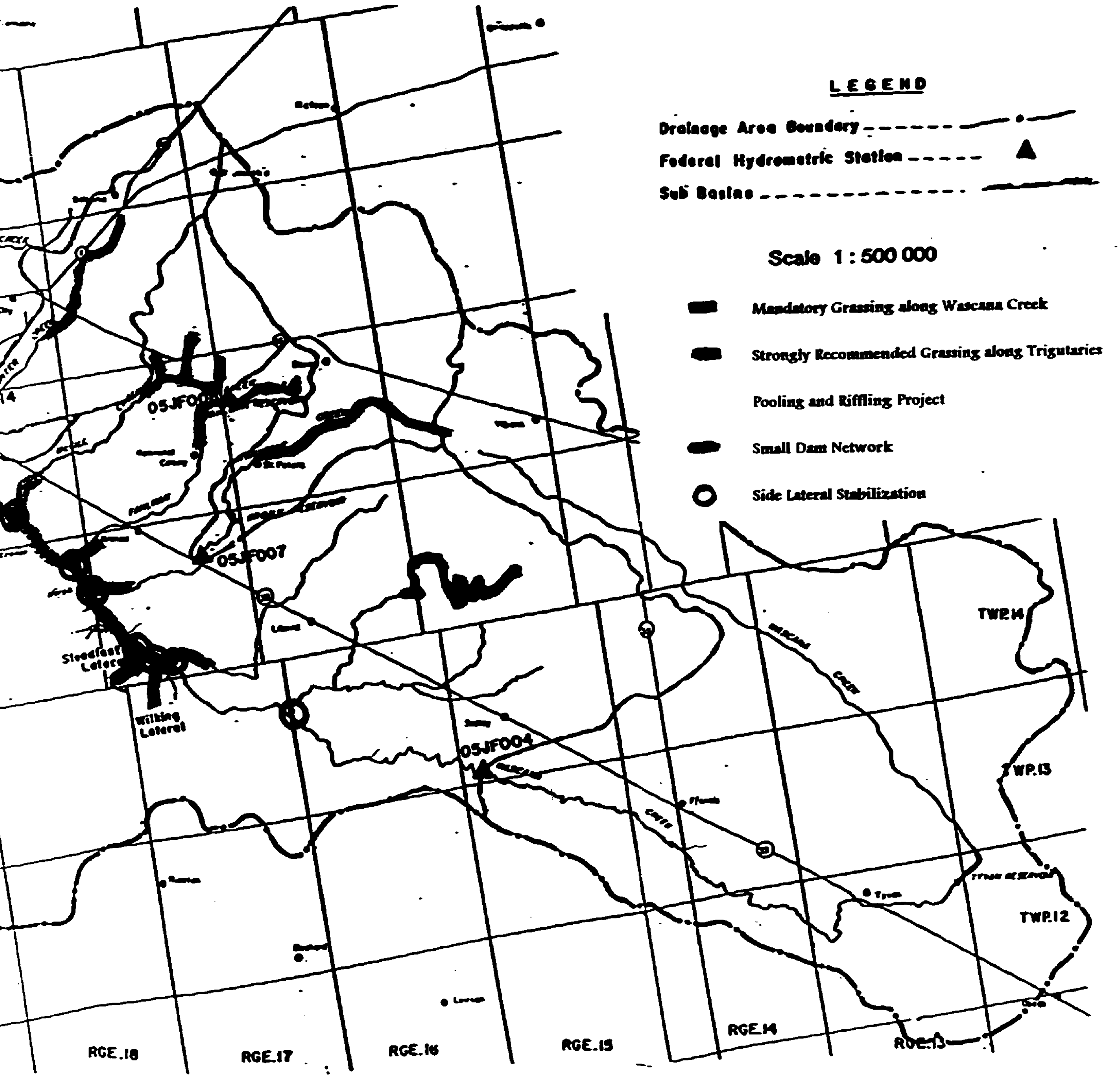
There is approximately 35 kilometres (22 miles) of constructed watercourse where the main creek channel flows in a straight line to expedite the flow of water from the flats to prevent flooding. In many locations along the creek, farmers cultivate up to the edge of the creek and into the riparian zone. Soil stability is achieved by plant roots that keep it in place and foliage mitigating the impact of falling rain or water moving across a land surface. Grassing prevents the dislodging of particles into the creek and keeps the banks of the creek stable (Ripley et al., 1961).

The width of the grass strip across the waterway is an important consideration because if the creek spills its banks onto cultivated land, soil loss will likely take place. Creek banks should therefore be seeded no less than 10 metres (30 feet) across in accordance with the general 4:1 slope standard accepted by Agriculture Canada and SaskWater (Waggoner, 1996). The approximate cost of seeding one acre of grass (including equipment) according to Manitoba Natural Resources is twenty dollars per acre. Assuming a worst-case scenario, that no grassing exists in the entire 35 kilometre length of the entire constructed waterway of the main creek, 80 acres of land would need to be addressed. These areas are highlighted in Illustration 5.1.2 in red.

Several lateral channels also have the same problem as the main creek and should be grassed where needed (highlighted in orange in Illustration 5.1.2). The additional area which this covers is approximately 16 kilometres (10 miles) of channel and an additional 36 acres. The majority of this additional area is not part of the main Wascana Creek corridor and runs through the upstream regions of the Wascana Conservation and Development Area across private farmland where right-of-ways are seldom (if ever) enforced or maintained.

ILLUSTRATION 5.1.2
Recommended Areas for Improvements




LEGEND
Drainage Area Boundary
Federal Hydrometric Station
Sub Basins
Scale 1 : 500 000
Mandatory Grassing along Wascana Creek
Strongly Recommended Grassing along Trigutaries
Pooling and Riffling Project
Small Dam Network
Side Lateral Stabilization
05JF007
05JF004
Steadfast Lateral
Wilking Lateral
TWP.14
TWP.13
TWP.12
RGE.18
RGE.17
RGE.16
RGE.15
RGE.14
RGE.13

5.1.2.2 *Pooling and Riffling*

Changing the morphology of a prairie creek from a meandering watercourse to a linear drainage channel results in water during peak flows of heavy rainfall events or spring flows moving through the creek at higher velocities than it normally would (Parsons and Abrahams, 1993). Sediment cannot settle out of the water because the water does not have an opportunity to slow its velocity. The Upper Wascana Creek has been channelized across much of the area of the flats to receive drainage from adjacent ditches and side lateral channels.

The construction of a series of riffles and corresponding pools retard the velocity of water moving through a straight line drainage channel. They enable the same volume of water to pass through the channel, but slow down the flow velocity by forcing the water to pool behind rock infill (Sopuck, 1997). Sediment being carried by the stream is deposited over the course of several hundred metres as the water is slowed in pools and then rapidly forced over the riffles. The highest amounts of deposition usually occur in upstream pools and decrease further downstream.

Along with reducing sediment in the watercourse, the pools created by the riffles provide a location for wetland habitat and fish to spawn. The flows of the Upper Wascana generally are not fast-flowing or deep enough for many fish species to exist (Leavitt, 1997). Yet in the areas of the main creek closest to Wascana Lake, it is likely that fish could inhabit the creek seasonally. Where the creek passes through the channelized area of the flats, there is a minimal change in elevation and therefore pooling and riffling would not be feasible.

As the creek begins to meander along the final 11 kilometres (7 miles) closest to the city, pooling and riffling should be considered to reduce the amount of sediment in the creek before it enters Wascana Lake. In addition, the area near Tyvan where the soil type (Appendix 8.3.6) seems to contribute to making the area more prone to soil loss should be evaluated to determine the possible effectiveness of pooling and riffling Wascana Creek (highlighted in yellow in Illustration 5.1.2).

The slope of the land which second-order tributaries cross before entering the main creek from the east is greater than the channelized area on the flats. Pools and riffles should be constructed in these tributary corridors where gully erosion is taking place, to decrease the flow of runoff collected from the field drainage channels (incipient waterways). These natural sediment traps prevent sediment from reaching the main creek and being carried further downstream (Sopuck, 1997).

The Dauphin Lake Advisory Board together with Manitoba Fisheries, constructed an 800 metre long series of pools and riffles at 100 metre intervals as part of a restoration project at Dauphin Lake, Manitoba in 1985. The project has seen the settling of 0.3 metres of sediment settling out of the stream in the upper two riffles. The average cost of constructing these projects are approximately $30,000 each covering the hauling and placement of rock and riprap, as well as the initial excavation of the pools (Habitat Heritage Corporation, 1995).

5.1.2.3 *Slope Stabilization*

Side laterals are junctions in the stream channel where one second order waterway flows into the main stream. In the spring and early summer, the flow of the tributary is disrupted in velocity and direction when it meets the larger current of Wascana Creek. The subsequent churning and turbulent flow at these junctions causes some erosion of the channel walls, or deposition of suspended sediment at the delta of the tributary into the creek. Soil movement is often compounded by adjacent right-of-ways which have not been grassed, rather have been cultivated up to the edge of the watercourse and then flooded in high water seasons.

Slope stabilization should be considered at side laterals where major junctions along Upper Wascana Creek exist. These include the tributaries of Hunter Creek, McGill Creek, Kronau Creek, Manybone Creek, the Steadfast Lateral, the Wilkins Lateral, Frenchville Section, Sedley Creek, and Francis Creek which flow into Wascana Creek (circled in Illustration 5.1.2). The possible one-time stabilization of these areas and continued maintenance will reduce the expense of dredging accumulated sediment at the junction and repairing eroded channels on an annual basis.

Stabilization should involve re-inforcing the slopes around the junction of the waterways with boulders or riprap (Manitoba Fisheries, 1996). Rock and riprap should also be laid at intervals to riffle the downstream flow of the tributary before it meets Wascana Creek. Tributary flows should be slowed as much as possible to mitigate the erosivity of the tributary at the side lateral junction. Sediment already in the flow of the tributary will likely not settle out before entering the main creek but will dislodge other soil particles as it hits the shoreline unless the shoreline is stabilized. It is therefore also important to manage the sediment volumes flowing downstream via the tributaries through upstream stewardship initiatives.

Boulders, stones and riprap placed along shorelines at stream junction where erosion occurs would likely cover about 30 metres of shoreline with rock, and should be placed in conjunction with grass seeding along presently cultivated shoreline where there is exposed soil. The right-of-way at side laterals should be expanded to a minimum width of 12 metres across the mouth of the tributary and maintained by regular annual cutting. The approximately cost for hauling and placement of the riprap would be $8,000-$10,000 per stabilized lateral, and an additional cost of likely no more than $200 for re-grassing the junction following spring flooding during the low flow season (Habitat Heritage Corporation, 1995).

5.1.3 Cultivation Practices

Cultivation has commonly occurred through land drainage channels to enable farmers to gain additional acreage. The furrowing of these channels has resulted in as much as 66 tonnes of organic matter eroding from gullies in one season through some Agriculture Canada experiments (Ripley et al., 1961). Farmers must ensure that they are not contributing to soil loss by destabilizing surfaces which are susceptible to erosive runoff.

Incipient waterways often begin in wetlands and drain excessive water from a wetland depression across fields to larger streams or ditches. Although the incipient waterways often carry very little water, they are capable of gulleying a tract through cultivated land in heavier rainfall events. These small drainage tracts must be permanently covered by plant material with extensive root systems (alfalfa, blue grass, clover), even if the drainage corridor is only 2-3 metres in diameter (Canada/Saskatchewan, 1995). Areas of private farmland are not currently monitored to ensure that incipient waterways and drainage paths are being cultivated or suitably maintained. Farmers must take the responsibility to ensure that these areas are adequately cared for.

Farmers engaging in zero-till seeding and fallow reduction have substantially reduced their amount of soil disturbance. Zero-till does not require the breakage of the soil for seed germination. Fertilizer application enables continuous cropping to occur without fallow disturbance for an entire season. Farmers who continuous crop and have switched from cultivated to zero-till seeding have optimized the stability of the soil by allowing root networks to hold soil together and organic residue to decompose (Anderson et al., 1984).

Where cultivation is still being practiced, contour cropping must be adhered to on slopes up to 10% (Agriculture Canada, 1995). Furrows made by the tillage machinery and the rows of crop plants create small dams when they follow the surface contours. This practice retards the flow of the water down a slope and reduces erosion. Procedures such as contour cropping, continuous seasonal crop rotation, zero-till seeding, and grassing small drainage channels into forage, combine to make individual farm maintenance sustainable for the land and economically viable for the farmer over the long-term. Farmers should continue to be informed about the benefits of improved crop management to soil stability and personal savings.

5.1.4 Wetland Conservation

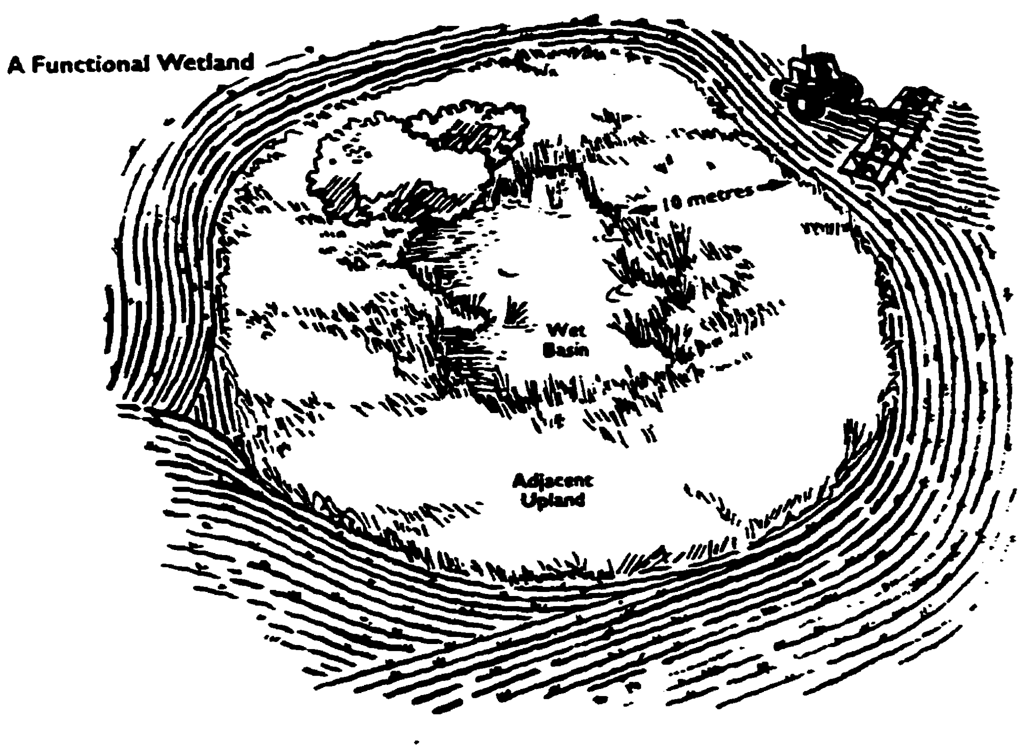
Wetlands are topographical depressions which contain water long enough each year to provide a home to aquatic plants and wildlife (Ravera, 1991). They are an integral part of the Prairie landscape and provide a variety of necessary functions to both humans and nature. A rich array of wildlife finds refuge in the variety of vegetation surrounding the wet basin. They contribute to re-charging groundwater aquifers and help to filter contaminants before permeating the surface. They also provide a source of good quality hay from plants surrounding the wet basin (Canada/Saskatchewan, 1995).

Wetlands have traditionally been perceived as having no value to farmers because the covered acreage was being wasted to shrubs, trees and slough. To obtain more productive agricultural land, it has been necessary for farmers to drain the wet basins and clear the associated vegetation (Government of Saskatchewan, 1996). The long-term effects of doing this have been the erosion of top soil, water shortages (both surficial and aquifer), and reduced land productivity. Water that routinely collected in wet basins is drained across cultivated lands resulting in gullies and soil loss. The declining number of wetland areas is a problem which continues to exist today and preservation must therefore remain a priority.

To adequately maintain a functional wetland, the farmer must ensure that cultivation does not occur onto a 8-10 metre zone of land surrounding the wet basin known as the adjacent upland (Government of Saskatchewan, 1996). The grassed area closest to the water often provides nests and habitat for birds and small animals, but can be harvested as hay and baled in the harvest season. Illustration 5.1.4 on the following page shows the relationship of farming operations to a functional wetland.

A complete inventory of wetlands in southern Saskatchewan (including the Upper Wascana Creek Watershed) needs to be compiled so that a subsequent land exchange might be initiated between farmers and their rural municipalities to permanently protect wetlands from being lost to agriculture. The present work of Ducks Unlimited involves the development of a partial inventory of wetlands using remote sensing imagery and should be incorporated into a complete, and current inventory of the entire Upper Wascana Creek Watershed's wetlands by the Saskatchewan Wetlands Conservation Corporation. The inventory should form part of the basis of a possible Land Exchange Program (refer to Section 5.2.1.2) and help the Corporation enforce wetland preservation. Additional personnel may need to be acquired to meet the needs of this program or the help of non-profit organizations.

ILLUSTRATION 5.1.4
A FUNCTIONAL WETLAND
(Government of Saskatchewan, 1996)



5.1.5 Small Dam Networks

Small dams can be an effective means of reducing large volumes of sediment from smaller tributaries and controlling downstream flooding (PFRA, 1992). When water flows through the creek system without encountering any obstructions, it dislodges sediment as it continues to build momentum moving downstream. Effective small dams are not possible on very flat tracts of land because natural topography does not provide walls for a backwater reservoir, and water behind a constructed dam floods many acres of surface area in a very shallow reservoir. In more undulating terrain, reservoir capacities are much greater for the amount of cropland they displace.

When built in a series, small dams help to prevent flooding by delaying the release of water reaching areas further downstream (PFRA South Tobacco Creek Pilot Project, 1996). Water flows into the backwater reservoir carrying sediment from upstream and is halted by the dam. The sediment is forced to settle in the reservoir before the water flows over the dam back into the waterway. The depth of the reservoirs are monitored to determine when they may need to be drained down and emptied. This usually occurs in alternating years, late in the summer season or early autumn to avoid heavy rainfall events. The farmer is able to re-integrate the organic material back into the soil following dredging. The dams also provide a source of water for irrigation, birds and duck habitat (Canada/Manitoba, 1997).

The Deerwood Soil and Water Management Association has been able to achieve reduced peak flows of between 16-25% for 1:2 year flooding events in the Tobacco Creek Watersheds in southern Manitoba using a network of 42 small dams designed in conjunction with the PFRA and Manitoba Agriculture (Oborne, 1995). Peak flows cannot be directly correlated to specific sediment volumes because geomorphology, regional climate, slope and soil types vary between locations. The focus of the Deerwood project was primarily on the design of a small dam network, although the Tobacco Creek Watershed was a Prairie watershed with steeper slopes and ravine walls than the Upper Wascana.

Three types of dam designs were used in the Deerwood project (Oborne, 1995):

1. Dry dam - designed to reduce the peak flows in runoff and rain events by retaining water for short periods of time and reducing flow rates (average cost: $11,770).

2. Backflood dam - designed to retain water for several weeks at shallow depths over large areas of land to increase soil moisture for the benefit of crops and wildlife (average cost: $5,103).

3. Multi-purpose dam - designed to retain water for various seasonal, domestic, and irrigation functions. Constructed with a stand pipe to regulate seasonal storage, control spring flood water, release excess slowly, or store for summer use.

Drained in the fall to clear out and prepare for flooding in the spring (average cost: $8,882). An example of this design is included in Appendix 8.5.1.

Presently, runoff with a high sediment load flows downstream onto the Wascana Creek flats near Kronau, and creates flooding when it spills the banks of the creek (Karon, 1997). The 1996 Erosion Risk Map shows several areas in the eastern half of the Upper Wascana Creek Watershed which are estimated to have a medium, high or very high risk of soil loss. These areas occur where the watershed topography is more undulating and some small dam construction may be possible.

A series of 3-4 small dams should be designed per subwatershed if deemed necessary by further study in the eastern areas of the Upper Wascana Creek Watershed similar to the procedure used in the Deerwood Project. The PFRA and SaskWater should collaborate with the Wascana Conservation and Development (C & D) Authority in the determination of the areas suitable for weirs and reservoirs. Where small dams are deemed to be impractical, pooling and riffling through excavation and riprapping must be implemented. The areas for immediate analysis should be areas in the upper reaches of the following (highlighted in purple on Illustration 5.1.2):

1. Hunter Creek - south of Balgonie
2. McGill Creek - west and northwest of Davin
3. Manybone Creek - southwest of Davin
4. Frenchville Creek - north of Sedley, east of Lajord
5. Wascana Creek - southeast of Francis

The survey and design of small dams in these subwatersheds must be a joint effort by the support agencies and the farmers together. Support funding must be made available to farmers through the SaskWater Water Control Assistance Program which supports up to 50% of the construction expense (Appendix 8.5.2). In addition, the Wascana C & D Authority should subsidize the majority of the remaining cost with project funds from other support agencies and levels of government. If a combination of several ameliorative measures (which include waterway maintenance, wetland conservation, and cultivation) were established with the small dams in these areas, a 10-15% reduction in watershed sediment loading would be a realistic possibility in the short term (PFRA South Tobacco Creek Pilot Project, 1996).

5.1.6 Development Controls

Some areas of the watershed have experienced large percentages of urban growth and development in the last decade which may be contributing to increased sediment loading in certain second-order tributaries. White City / Emerald Park, along the northern boundary of the watershed encompasses several hundred additional acres of recently developed land.

Included in the new developments, have been a new industrial park, a golf and country club, and residential subdivisions (large homes with outdoor swimming pools). The developed land now covers over 2½ sections of decreased permeable surface and result in additional runoff from parking lots, driveways and street surfaces (Armstrong, 1997). Presently some of the runoff from the golf course enters the incipient waterway of Hunter Creek, but is currently thought to be not a significant enough volume by the municipality to warrant any water control mechanism. Because of the pollutants that are known to exist in urban runoff, water quality may be jeopardized over the long-term with an increase in urban development.

The growth rate of Emerald Park between 1991-96 was estimated by Statistics Canada to be 20%, and the entire municipal growth rate was 16.6% with a significant increase in professionals with young families (Elliott, 1997). With new first-time buyers seeing the safety and security of this Regina bedroom community, it is likely that growth and development will continue in the succeeding decade. It is therefore critical that a growth management plan address the problem of urban runoff in the high-growth areas of the Rural Municipality of Edenwold.

The result of increasing volumes of unregulated runoff from an urban development into small intermittent drainage channels (such as the headwaters of the Hunter Creek tributary), will result in massive downstream soil losses during runoff and heavy rain events as the water consistently overspills its banks onto adjacent farmland and expands its channel. The incorporation of retention ponds into residential subdivisions, sustained riparian zones around existing waterways, and re-grassing of exposed soil at construction sites should be mandatory under the regulations for any continued expansion of development in the area.

5.2 IMPLEMENTATION AND MANAGEMENT RESPONSIBILITIES

The implementation of institutional and physical changes needed to reduce the sediment loading in the watershed requires that agencies, institutions, government departments, and individuals understand what their roles must be in contributing to better land and water management in the region. The willing participation of the stakeholders in maintaining the health of a system to support the sustained activities of all stakeholders within that system over an indefinite period of time constitutes stewardship (Wharf, 1959).

Stewardship involves the willingness of the stakeholders to engage in a process which encourages the watershed improvements to take place in a timely fashion, and avoids duplication of services, programs, and funding. The health of the urban and rural components of the Upper Wascana Creek Watershed relies on the coordinated efforts of several groups and their management responsibilities. The participation of all stakeholders in a watershed planning process is necessary to ensure that various responsibilities are administered, and to ensure that conservation of the agricultural land base is immediately addressed and sedimentation in Wascana Lake is reduced.

5.2.1 Programs and Incentives for Farm Stewardship

Farmers constitute the largest group of independent stakeholders in the rural watershed. They are undoubtedly a group with a great deal to gain from better soil management. Higher productivity from the land translates into more stable farm household incomes and a more prosperous agriculture sector (PFRA, 1983). Many farmers are engaging in better land management practices due to knowledge of the economic repercussions of poor crop rotations and tilling procedures.

Unsustainable farming practices such as cultivating through field drainage channels and the drainage of wetlands still occur because there is a desire to harvest crop from the seeding of those acres. Government monetary incentives that encourage farmers to alter practices only result in short-term change because farmers maintain the right to farm privately owned land as they please. Changes are often only temporary to receive an incentive and then revert back to previous procedures (Tanner, 1997). Unless the benefits of a change are seen by the farmer to be tangible and fairly immediate, permanent changes are unlikely.

5.2.1.1 *Baling Grassed Waterways and Adjacent Uplands*

Baling can provide a supplementary source of income to farmers who maintain grassed waterways and adjacent uplands of wetlands. Right-of-ways along the shore of the creek are not supposed to be cultivated, but are often seeded by farmers to obtain the additional crop and extra revenue generated by it. The incentive for farmers to endorse shoreline maintenance is the revenue which can be generated through the sale of bales following the annual swathing of forage crops.

The right-of-ways along Wascana Creek (10 metres in width), which fall under the management jurisdiction of Conservation and Development Area Authorities, if seeded with an alfalfa-grass mix can be baled by farmers of adjacent lands. When sold, bales of this mixture can bring an average price of $25-$35 per bale, which constitute feed for cattle or other livestock game, and are often sold to livestock farmers outside of the region. The initial seeding costs usually amount to approximately $15 per acre for an alfalfa-grass mixture and grows perennially for 8-10 years (Saskatchewan Wheat Pool, 1997).

Farmers can apply for assistance under the SaskWater Erosion Control Assistance Program (Appendix 8.5.3) to seed areas on their own land to forage. This incentive, which funds up to 50% of the cost, should be maintained and publicized to encourage farmers to retain incipient waterways and wetland buffer zones as grassed forage on private lands. In return for the free maintenance of right-of-way lands by farmers, the

C & D Authority should relinquish any claim to revenues generated by the sale of forage by the land stewards.

5.2.1.2 *Land Exchange for Wetland Conservation*

Wetlands cover many acres of private land which farmers often permanently drain to seed crops. Although wetlands contribute to the health of the ecosystem and help reduce the loss of topsoil, farmers often view wetlands as productive farmland which can contribute to higher short-term economic gains. The problem is how to make the conservation of a wetland on private farmland mandatory, yet still beneficial to the farmer in the short-term.

Rural municipalities often own lands throughout their jurisdiction which are designated as pastures, road allowances or right-of-ways. These lands are often maintained as forage or grassland, but could be seeded for crop production in many cases (Mus, 1997). This does not mean that some of this land is not valuable natural Prairie habitat. In these cases, land should be duly protected. But, other plots of land might be seeded to forage and baled to increase land productivity. Assessment is currently not collected on these lands because they are owned by the RM. The land might therefore generate minimal income for the RM if the land titles are relinquished by the RM back to farmers (Grigg, 1997).

Following an inventory of the total amount of arable municipal land in the RM, farmers should be encouraged to engage in a land exchange with the RM to preserve wetlands. Farmers should register the size and location of the wetland with the Saskatchewan Wetlands Conservation Corporation, and have an equivalent acreage of available municipal land titled to them for use (crop production, forage or grazing). Farmers would subsequently be expected to maintain the current size of the wet basin and adjacent upland on their parcel.

With the consent of the farmer in exchanging land for wetland conservation, a caveat would be filed with the Land Titles Office to ensure that any future sale of the farmer's land parcel would protect the existing wetland. The Wetland Corporation would be responsible for policing the sizes and conditions of wetlands following land exchanges between the farmers and the rural municipalities. The Conservation & Development Authority should be the administrative body to coordinate this initiative between the farmers, rural municipalities, Saskatchewan Wetlands Conservation Corporation, and Land Titles Office.

5.2.1.3 *Land Improvement Programs and Grants*

The development of financial programs which support rural municipalities and farmers in watershed management activities that reduce erosion and sediment loading in the Upper Wascana Creek Watershed basin must be continued. This support must be provided to a watershed planning process through the following established formal funding grants.

1. Federal support through Agri-Food Canada's *Innovation Fund* which enables farmers or organizations to seek assistance for developing and implementing new technologies or innovative new practices in agriculture.
2. Provincial support through Environment and Resource Management's *Wildlife Development Fund* which will assist farmers or C & D's with wetland preservation initiatives, or small reservoir construction via earth damming in a subwatershed soil conservation scheme.
3. Provincial support through SaskWater's *Water Control Assistance Program* which provides to farmers or C & D's up to 50% of the costs involved in constructing works to alleviate flooding and drainage problems associated with agricultural lands (Appendix 8.5.2).
4. Provincial support through SaskWater's *Erosion Control Assistance Program* which contributes to farmers or C & D's up to 50% of the costs involved in repairing lands damaged by gulleying, sheet and rill erosion, or instability of waterways (Appendix 8.5.3).

5. Provincial support through SaskWater's *Channel Clearing Assistance Program* which provides support to rural municipalities for clearing obstructions from waterways which disrupt natural flows.
6. Non-governmental support through *Ducks Unlimited* to assist the C & D, the Saskatchewan Wetlands Conservation Corporation, and the rural municipalities in the coordination of a Land Exchange Program for wetland conservation.

5.2.1.4 *Design Assistance*

Design assistance is available to farmers for soil and water conservation projects or flood control works in the form of professional expertise. Structurally-intensive projects on private lands which involve large scale improvements such as tree clearing, re-grassing, reforestation, surveying, and small dam construction are supported by design professionals from the provincial and federal government if there has been prior approval (Lamberdy, 1997). This approval is sometimes dependent upon whether or not money is available in the budget of the respective government department or agency.

Subwatershed improvements such as a small dam network in the eastern part of the Upper Wascana Creek Watershed should be organized by the Wascana Conservation & Development Authority as a shared initiative between the PFRA, SaskWater, Environment and Resource Management, the rural municipalities and the farmers. If a similar project description was to be established similar to the Deerwood Dam Project in southern Manitoba, the PFRA and SaskWater would share in the design funding responsibility of dam projects, as called for in an official Watershed Management Plan.

5.2.1.5 *Education*

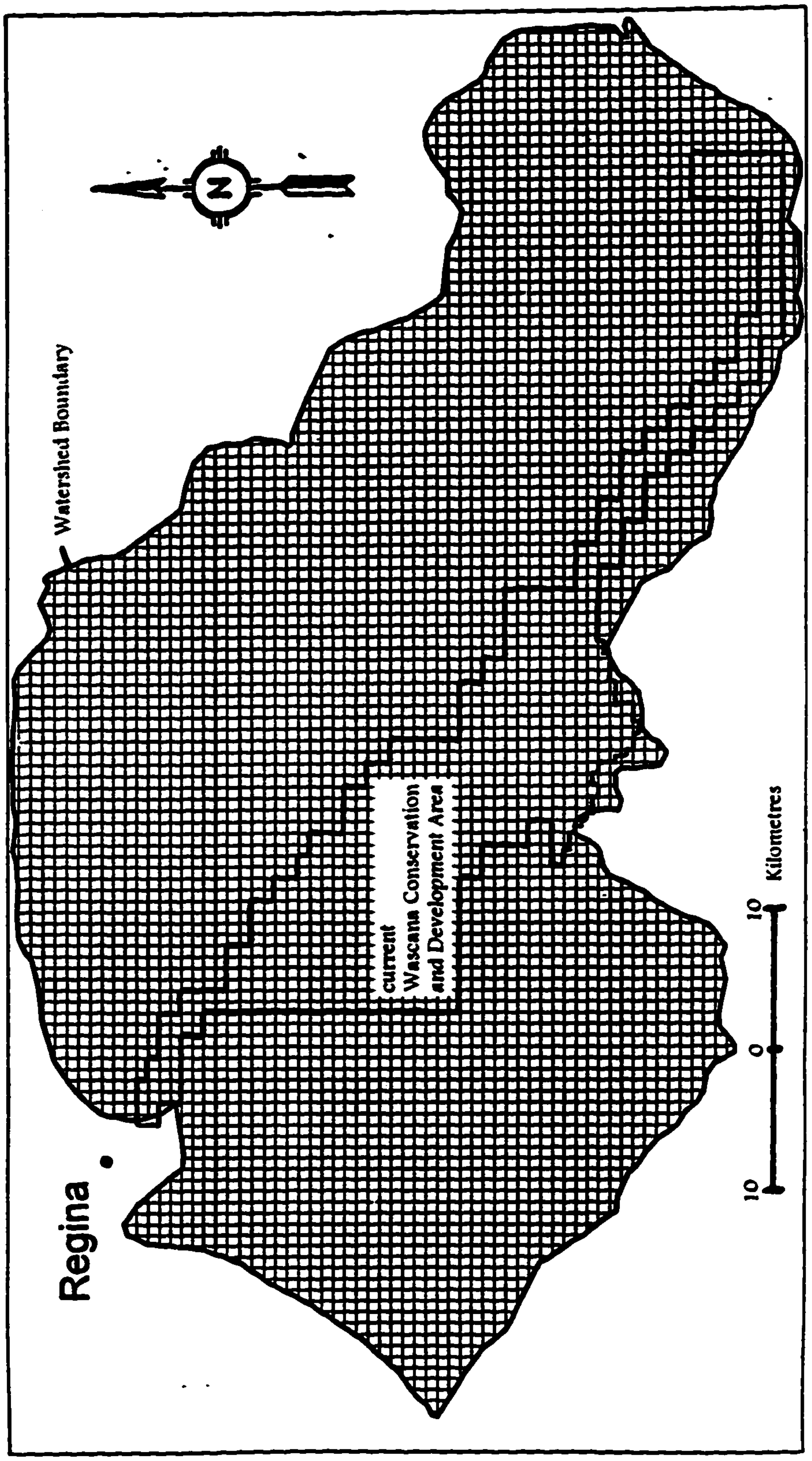
Education remains the most effective tool to achieving long-term permanent changes in farm practices (Tanner, 1997; Grigg, 1997). As a result of a better educated farm community, many farmers are realizing that the utilization of every available acre often results in net losses to gross productivity over time. It is imperative that the federal and provincial governments continue to fund post-secondary education programs which provide instruction in contemporary farm practices and better land management.

Support funding to the Department of Agriculture should be maintained by the province to enable Extension Agrologists to run workshops for farmers to explain the grants and assistance packages available to them. The Extension Agrologist's Office at Indian Head, Saskatchewan should be equipped with additional personnel to assist with the development and delivery of a public farm education program encouraging the active support of farmers in a watershed management plan of the Upper Wascana Creek. This initiative should be a joint endeavor between the Department of Agriculture and applicable organizations (including SaskWater, the PFRA, Wascana Conservation & Development Authority, Environment and Resource Management, Wetland Conservation Corporation, Ducks Unlimited, Nature Saskatchewan and respective Rural Municipalities) where applicable.

5.2.2 A Coordinating Organization

The Wascana Conservation and Development Authority is a governing body representing farmers which has the authority to construct and maintain projects which concern the conservation or development of land or water in its jurisdiction (Government of Saskatchewan, 1984). The Wascana C & D Authority consists of a board of elected and/or appointed individuals who own land within the defined C & D area and make decisions regarding drainage, flood control, soil conservation or other such projects. The authority applies for and administers funds on behalf of the land owners of the area (including grants, loans and levies on certain lands benefiting from certain projects). They are eligible for support funding through municipal, provincial, federal and non-governmental agencies under the Saskatchewan Conservation and Development Act (Government of Saskatchewan, 1984). The Wascana C & D Area currently encompasses 192 square miles of land from the perimeter of the City of Regina to the southern limit of the Upper Wascana Creek Watershed near the village of Tyvan. This is shown on the next page in Illustration 5.2.2.

ILLUSTRATION 5.2.2
Current Boundaries of the Wascana Conservation & Development Area



Projects in the Wascana C & D have traditionally involved the construction of drainage channels along Wascana Creek for expediting the removal of water from the flats for spring seeding. The boundaries of the present C & D exclude most of the medium, high or very high risk areas of land indicated by the 1996 Erosion Risk Map. To effectively administer projects in these areas and represent the farmers seeking assistance with individual stewardship initiatives, the boundaries of the C & D should be expanded to the east. The C & D should include all areas of the rural municipalities of Edenwold, Lajord, Francis and South Qu'Appelle east of Wascana Creek which lie within the drainage basin of the Upper Wascana Creek.

With the geographical expansion of the C & D, the Executive should engage in partnering with organizations such as Nature Saskatchewan, the Saskatchewan Wetlands Corporation, Ducks Unlimited, and the Extension Agrologist's Department to derive ways of seeking support and involving farmers in conservation programs and initiatives to help minimize erosion. This group should plan erosion reduction activities that include detailed watershed improvements to encourage individual farmers to do their part in land management. Individual farmers are apt to willingly engage in initiatives when they know they are a part of a communal effort (Cameron et al., 1992).

The Wascana C & D should be the implementing organization of a detailed *watershed management plan* for the Upper Wascana Creek Watershed and summon the advisory assistance and financial support of other organizations, including an environmental planning consultant, in the process. Specifics of the plan which address the technical aspects of implementing the necessary changes should be immediately identified by a detailed environmental report to confirm cost estimates, sediment reduction schemes, and an implementation timeline.

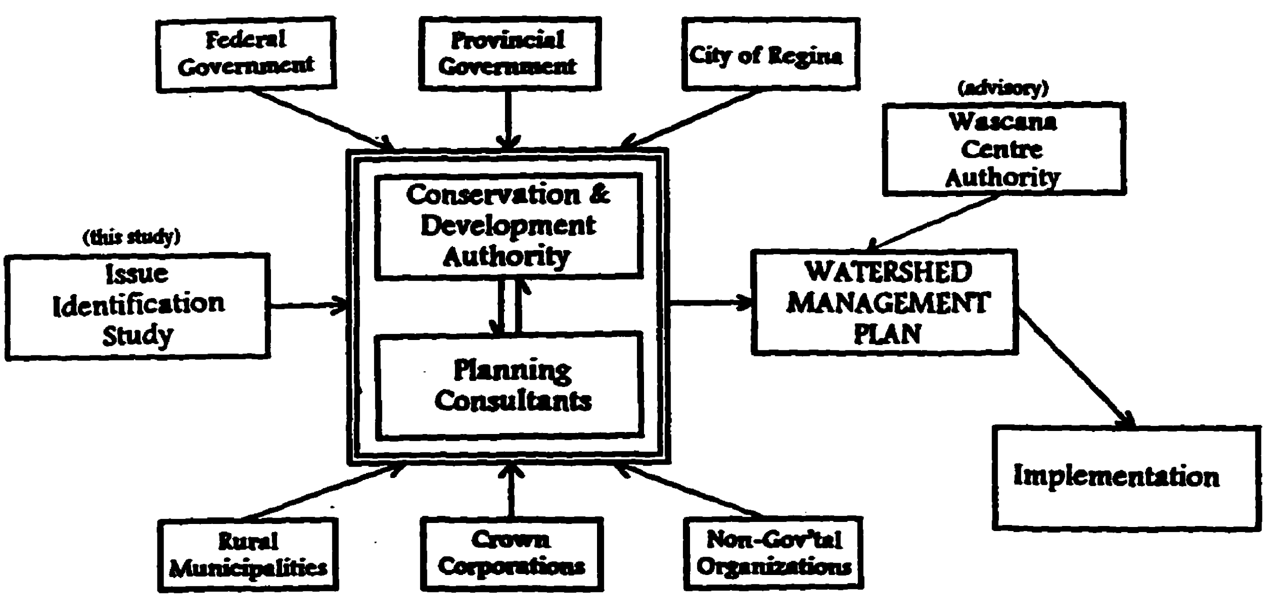
5.2.3 The Need for a Watershed Management Plan

There is a need to specify the sequence of improvements to the Upper Wascana Creek Watershed through a detailed watershed management plan. A watershed management plan is a set of steps which give breadth to these identified issues and general recommendations by outlining a specific timeline for improvements and a specific funding scheme for the participants involved in watershed improvements (Keeley and Walters, 1994). It articulates the reparative design needed in the various subwatersheds and invites farmers, and community organizations to contribute to defining how the improvements should be implemented.

The Conservation & Development Authority should seek the professional services of a qualified planning consultant to assist in coordinating the community input, environmental design and economic management components of the process. Wascana Centre Authority professionals should take an active role in sharing information and advising the Wascana Conservation & Development Authority of its structurally intensive operations, lake management plan and greenspace designs as the watershed management plan is being developed with the planning consultants.

All levels of government must be firmly behind the coordinating action of the Conservation and Development Authority and provide support in the form of professional assistance, financial aid and technical services. The integration of support from the federal and provincial governments, City of Regina, rural municipalities, crown corporations and non-governmental organizations must take place to ensure the effectiveness of the watershed management plan. The following diagram illustrates this relationship in the process:

ILLUSTRATION 5.2.3
LAND STEWARDSHIP PROCESS
UPPER WASCANA CREEK WATERSHED



The roles and responsibilities of the various organizations in the planning, implementation and funding process should be as follows:

Environmental Planning Consultants

- Define specific areas for small dam construction in the upper reaches of the watershed (refer to Fuller Report, University of Regina, 1996).
- Confirm the most effective specific locations for pooling and riffling, riprapping, and re-grassing zones.
- Provide detailed economic projections for the watershed management plan and long-term maintenance strategy.
- Recommend a formal funding arrangement between the stakeholders in the watershed and organizations involved in the watershed reparations.
- Investigate potential ways to re-integrate the Wascana Lake sediment back into the agricultural watershed with the Wascana Centre Authority.

Wascana Conservation and Development Authority

- Coordinate the Upper Wascana Creek Watershed Management Plan.
- Represent the interests and concerns and farmers in the planning process.
- Administer the tendering of re-grassing projects.
- Police and enforce riparian right-of-ways to ensure that cultivation and topsoil disturbance is not occurring.
- Assist the Wascana Centre Authority with the problem of disposal or reintegration of lake sediment back into the watershed.
- Facilitate the establishment of the Land Exchange Program between rural municipalities and farmers.

SaskWater

- Continue to provide technical assistance where possible, to farmers and C & D's for necessary watershed improvements.
- Assist in the funding of waterway stabilization initiatives (grassing, riprapping, pools & riffles, etc.)
- Assist in the funding of small dam construction for sediment control and flood protection.
- Establish a sediment gauging station at the headwaters of Wascana Lake for annual measurements; monitor annual sediment volumes entering the lake.

Wascana Centre Authority

- Provide the Wascana Conservation and Development Authority with advice on the impacts of watershed improvement initiatives on Wascana Centre.
- Share research and development studies regarding environmental impact assessments and water quality improvement with the C & D.
- Participate as an equal partner with the C & D in improving the Wascana Creek stream channel at the entrance to Wascana Lake (streambank stabilization, pooling / riffling, and re-grassing).
- Coordinate any action regarding lake deepening or sediment disposal in conjunction with other appropriate organizational bodies.

Saskatchewan Wetland Conservation Corporation

- Work in conjunction with Ducks Unlimited to complete a detailed inventory of all of the wetlands in the Upper Wascana Creek Watershed.
- Ensure that the adjacent upland areas for each wetland are appropriately defined and included in the calculation of wetland surface areas prior to enacting a land exchange program between rural municipalities and individual farmers through the Conservation and Development Areas.
- Police and enforce the defined wetland parameters to ensure that wetland is not being encroached on by cultivation.

Prairie Farm Rehabilitation Administration

- Provide design services for areas deemed to be appropriate for weir construction as part of a small dam network to reduce sediment loading.
- Generate current annual erosion risk maps using specific land use data (satellite remote sensing) and a geographical information system to monitor erosion risk in the Upper Wascana Creek Watershed.
- Work with farmers and the C & D to develop innovative sediment reduction procedures for implementation within the watershed.
- Ensure that federal monies are budgeted toward assisting the C & D with administrative costs and project implementation.

Saskatchewan Environment and Resource Management

- Provide environmental impact analyses of construction areas where small sediment control structures may pose a threat to natural habitat.
- Monitor the post-construction restorative procedures and environmental impacts on all watershed projects.
- Oversee the construction of pool & riffle series in the tributaries or main creek channel (Fisheries Division).

Rural Municipalities

- Ensure that re-grassing of ditches and municipal waterways occurs following road maintenance or construction.
- Provide the Conservation & Development Authority with an inventory of unused farmable municipal lands (forage land, road allowance, right-of-ways, etc.) and pastures which can be incorporated into a land exchange program for wetland preservation, not to include any pristine native vegetation areas.

Saskatchewan Agriculture

- Ensure that provincial monies are budgeted toward assisting the C & D with administrative costs are budgeted toward assisting the C & D with administrative costs.
- Increase funding to Extension Agrologists Office to provide information to farmers regarding the impacts of crop rotation and cultivation procedures on soil loss and farm economics through public workshops or publications.
- Continue to support public education of soil and water conservation through the development and funding of new programs in conjunction with non-governmental educational organizations such as Nature Saskatchewan.

City of Regina

- Contribute part of the support funding to the Wascana Conservation & Development Authority for watershed restoration initiatives which will reduce sediment loads in Wascana Creek and result in improved water quality for Wascana Lake.

5.3 LAND STEWARDSHIP EXAMPLE

The combination of government incentives, the desire for more effective soil conservation by individual land owners, and the knowledge of how to use design as a proactive mechanism to improve the symbiosis between humans and the natural environment can produce changes to individual parcels of land which effectively control erosion (Ripley et al., 1961). A farmer who owns land which is significantly contributing to sediment loading can effectively implement changes to the land which will decrease the potential for soil loss. Seldom are any two parcels of land identical, thereby requiring that designs for reducing soil erosion be site specific and sensitive to the needs of the location.

The following five steps outline a generic process whereby a farmer can reduce the soil loss from his/her land parcel:

1. Identify the pertinent factors contributing to erosion (problem).
2. Determine the objectives for solving the problem at the specific location.
3. Design a sustainable solution to meet objectives and reduce erosion.
4. Implement the design as cost-effectively as possible.
5. Maintain the land over a long-term period to control sedimentation and avoid future structurally intensive improvements.

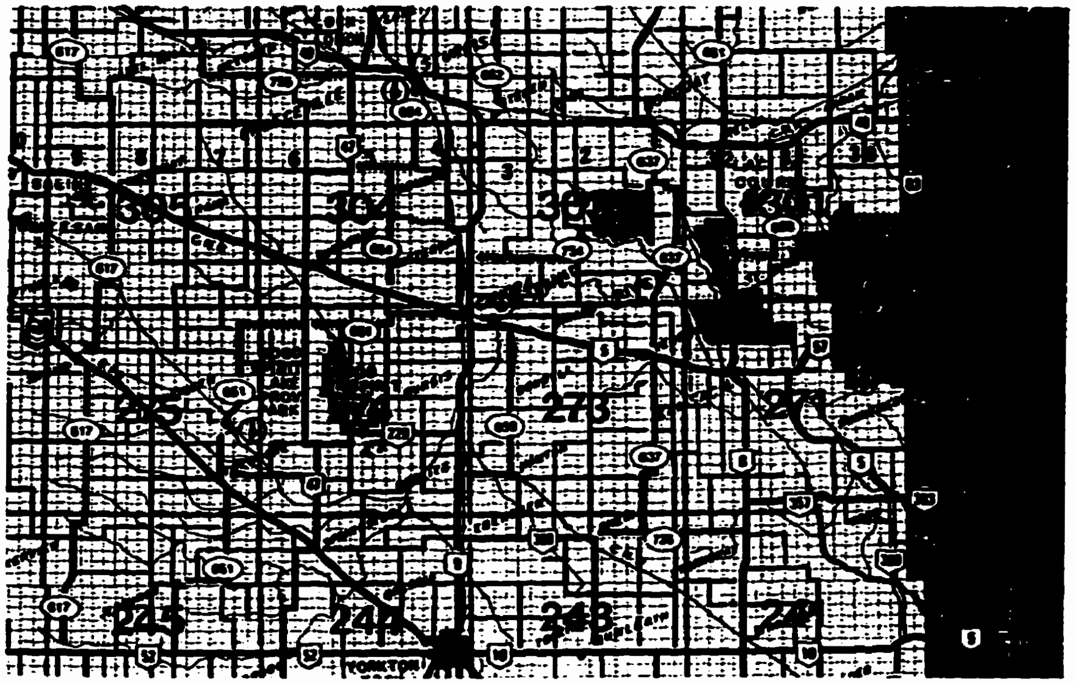
The following case example is a quarter section of land (NW¼-18-30-01, W2M) in east-central Saskatchewan through which flows two intermittent waterways which are tributaries to Kamsack Creek in the Assiniboine River watershed (Illustration 5.3.0). This land parcel is not in the Upper Wascana Creek watershed, but is similar in slope, cover management, soil texture and conservation practice to most quarter sections in the Upper Wascana Creek watershed where an estimated high rate of soil loss exists.

As a result of the serious flooding of 1994 in the Upper Assiniboine River watershed (including very high spring snowmelt volumes in the recent years), Manitoba Natural Resources, SaskWater and Environment Canada have started developing a basin management plan and guidelines for future development through the Upper Assiniboine River Basin Study. Although a drainage moratorium is in effect for three years, small projects which contribute to improved water management are still being considered for approval. This example has not been implemented but is in the application stages with SaskWater.

5.3.1 Problem Identification

The quarter section is depicted in aerial photographs taken in October, 1996 (Plate 5.3.1 and 5.3.2). Plate 5.3.1 faces east and includes the adjacent quarter section in the picture; the bottom of the photograph parallels a north-south section line (north is the left side of the photograph). Plate 5.3.2 is a photograph oriented with north on the right side of the picture. As shown on the corresponding site map (Illustration 5.3.1) one stream enters the land from the northwest corner, and the other enters from the western edge of the land and flows east to merge with the former.

ILLUSTRATION 5.3.0
Case Example - Location Map



KEY MAP

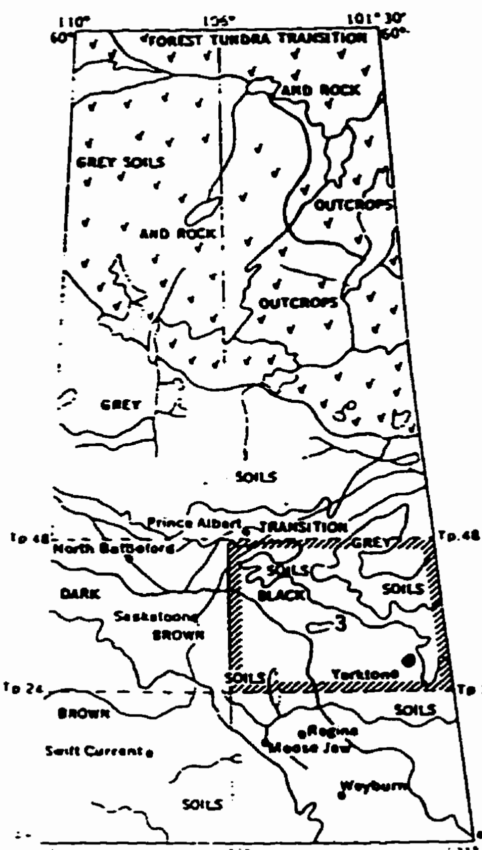
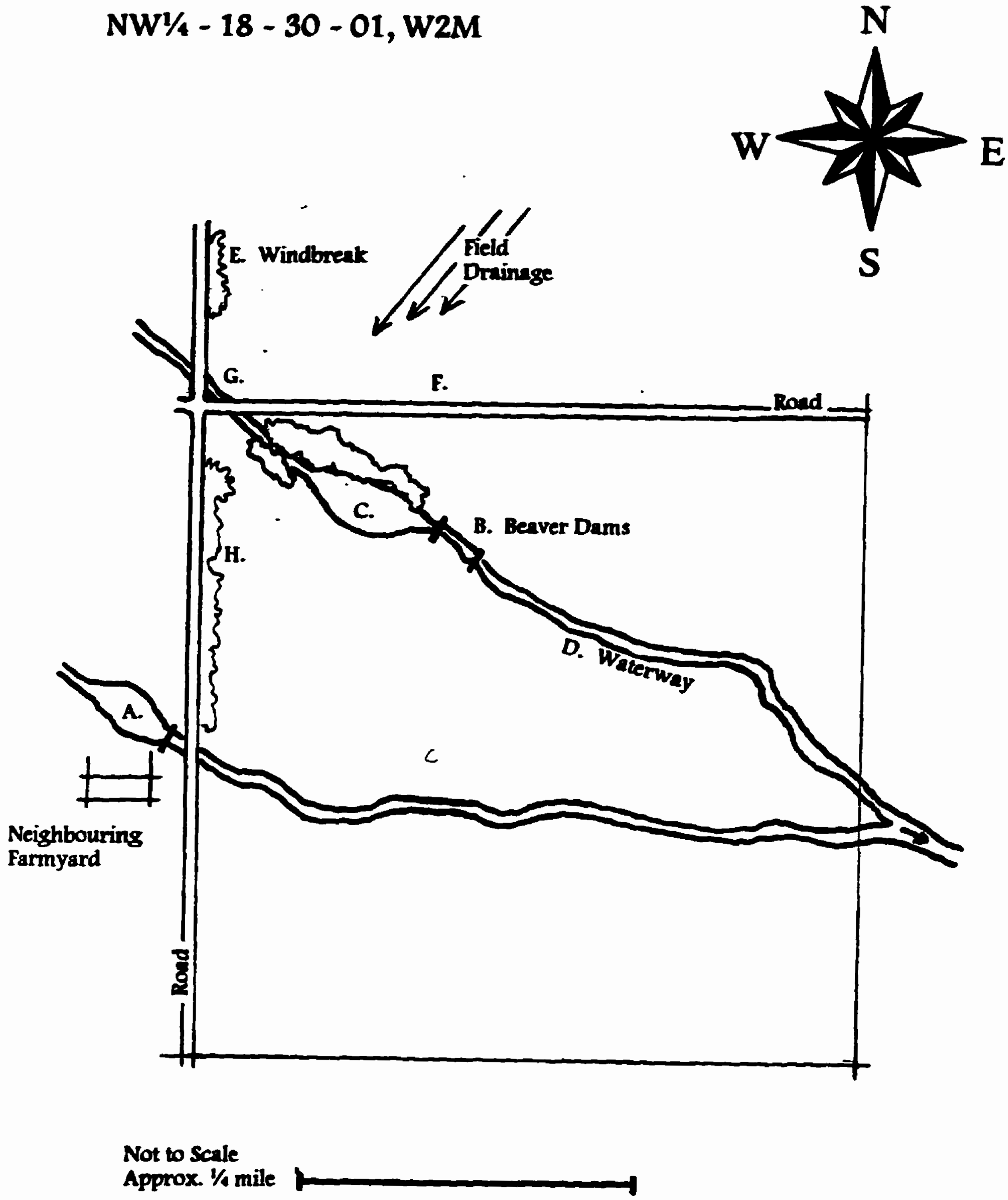


ILLUSTRATION 5.3.1
Case Example - Site Map



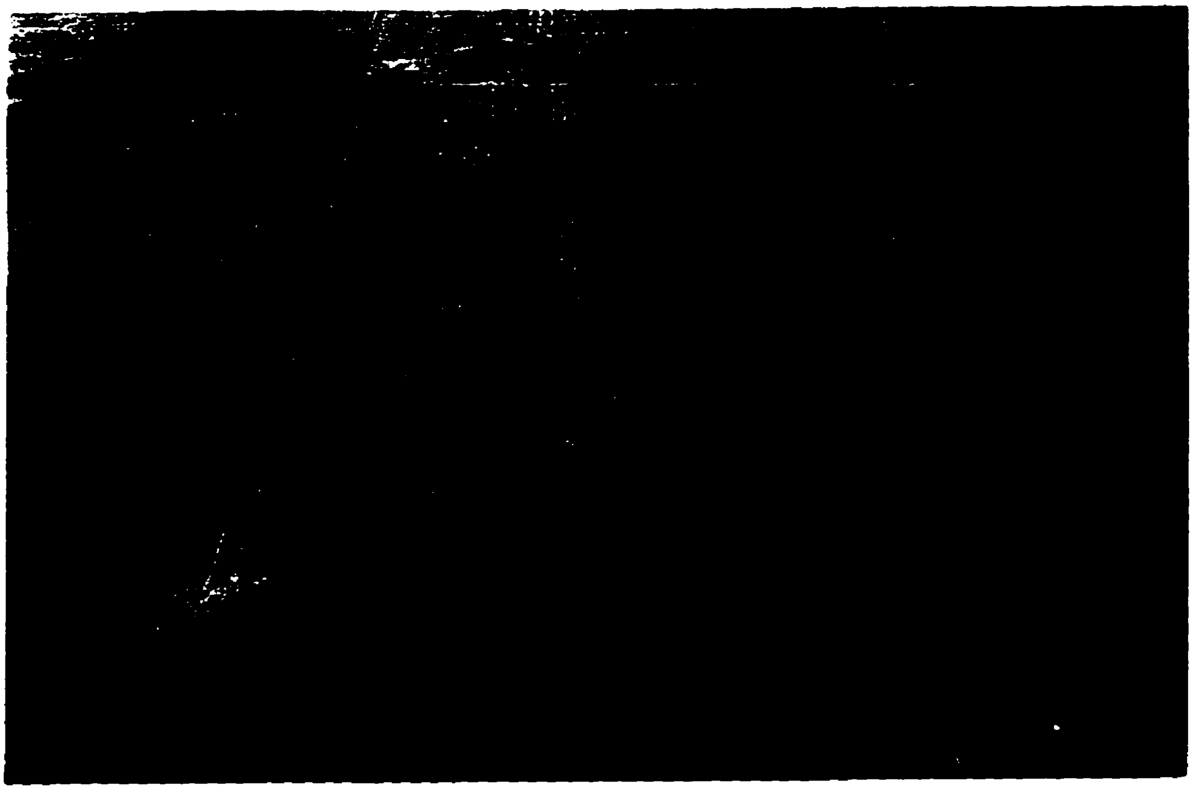


PLATE 5.3.1 Aerial Photo #1 (October, 1996)

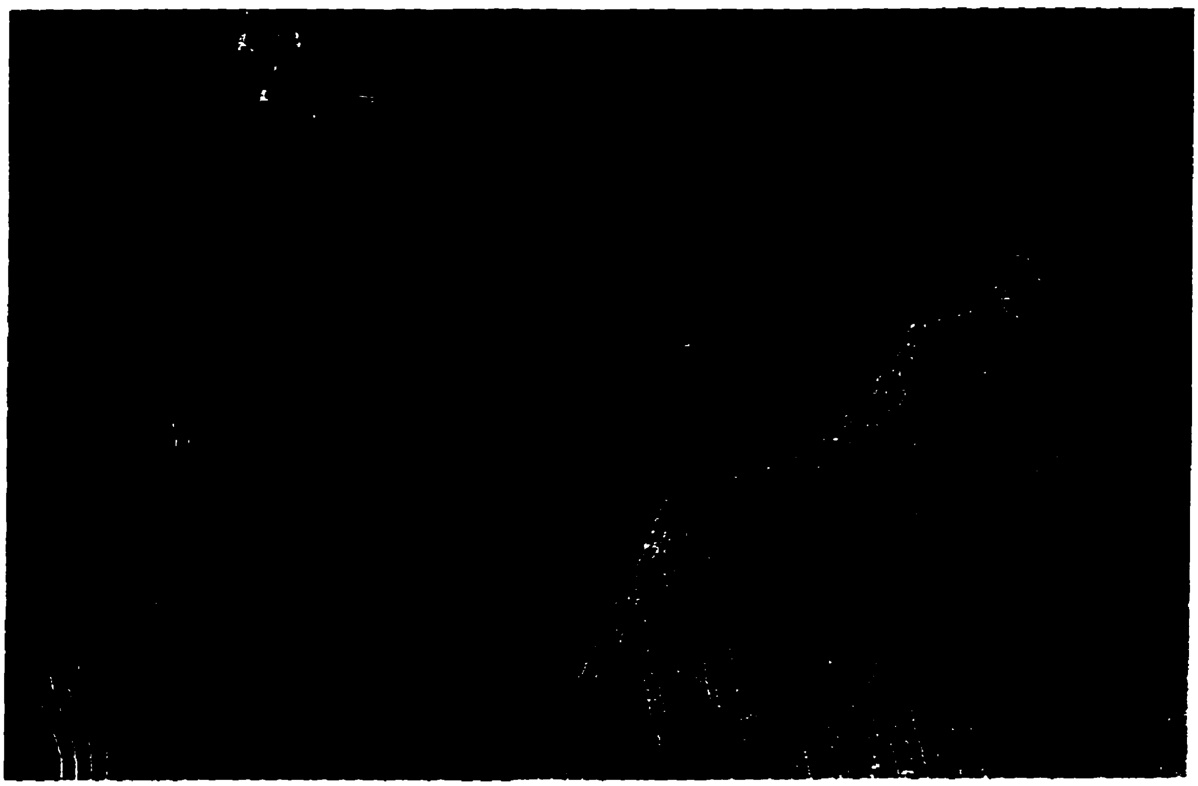


PLATE 5.3.2 Aerial Photo #2 (October, 1996)

PLATE 5.3.3 Beaver Dam (facing west)

PLATE 5.3.4 Beaver Dam (facing north)

A combination of problems exist with this plot of land that are interfering with crop production and general maintenance for the owner. The land is plagued by beaver dams, unwanted vegetation, and contains the intermittent creeks that drain both this quarter section and a sub-watershed of neighbouring upstream farms (an approximate basin area of 15km²). The results of rainfall events are fast-flowing torrents of unregulated runoff which are laden with sediment. The land is currently being evaluated to determine what suitable reparative measures can be undertaken to maximize crop production and contribute to watershed management.

Referring to Illustration 5.3.1, the south creek flow is currently retarded by beaver damming on the neighbouring west plot of land (A). The north creek channel is surrounded by trees which have invited beavers onto the land to dam the flow in undesirable locations (B). Presently, beavers create flooding through the riparian grove (Plate 5.3.3 and 5.3.4) and onto adjacent farmlands on either side (C). In heavy rainfall events or spring melt periods, water flows into the reservoir, over the dam and down the watercourse. The watercourse remains an uncultivated grassed waterway (D), but is in the mature stages of dense shrub growth which is becoming attractive foliage for further beaver damming downstream.

The existing beaver dam creates a sediment trap for the upstream flows, but is constantly being enlarged by the beavers using the aspen trees around the creek. In addition, there is no control mechanism to occasionally drain down the reservoir and remove excess sediment when deposition reduces the depth of the pond. A grove of old-growth aspen trees (7 metres in width) extends one-half of the length of the western boundary (H) and acts as a shelterbelt from the prevailing northwesterlies. A windbreak (E) continues north of the road allowance intersection and makes the aspen grove along the beaver reservoir redundant for wind protection.

The neighbouring quarter section of land to the north (SW¼-19-30-01, W2M) slopes to the southwest and flows down the north road allowance at (F), entering the creek at the road allowance intersection (G). The neighbouring owner cultivates and seeds the road allowance which currently drains the quarter section and collects topsoil as it flows down to the road allowance intersection. Gulleying has occurred near the intersection where the north quarter drainage lateral meets the stream and flows through culverts into the adjacent beaver reservoir (C) to the south.

5.3.2 Objectives for Problem Resolution

Improvements to any parcel of land must address the identified problems through a concise set of objectives which guide a more specific design process. The objectives attempt to balance the needs of the land owner, the neighbouring land owners, the ecosystem at the location, and the downstream watershed. Objectives should be established in accordance with SaskWater's policies on land drainage which discourage or prohibit channel clearing projects that contribute significantly to downstream flooding.

The objectives for this case example were identified as follows:

1. Clear the drainage channel of vegetation which is conducive to beaver habitat.
2. Retain a small dam to reduce the sediment loading downstream.
3. Maintain an uncultivated grassed right-of-way adjacent to creek and reservoir.
4. Provide a shelterbelt for wind protection and habitat on the land.
5. Address the drainage of the adjacent neighbouring north quarter section of land.

5.3.3 Sustainable Design

Sustainable design speaks to the ability of humans to recreate environments which allow them to function in coexistence with nature so that the relationship remains mutually beneficial over a long period of time (Van der Ryn and Cowan, 1996). The use of land for crop production has resulted in net soil losses because humans have traditionally grown crops without regard for ensuring the health of the soil. Today, the challenge is how water quality, soil mass and biodiversity can be repaired and maintained in agricultural regions while allowing humans to use the resources at their disposal in a non-wasteful manner and to their economic benefit.

This case example has attempted to address the existing problem by addressing the objectives and accommodating the needs of the stakeholders as well:

1. *Clear the drainage channel of vegetation which is conducive to beaver habitat.*

The creek corridor from the road allowance intersection (G) to the beaver dam (B) will be cleared of the aspen vegetation which is essential for the construction of new beaver lodges and dams along the watercourse. Beavers are still present in the ecosystem but will likely reside in the pond along the south creek (A). The cleared land will be permanently seeded to forage and maintained as an uncultivated adjacent upland.

2. *Retain a small dam to reduce the sediment loading downstream.*

A small backwater earth dam will be constructed near the location of present beaver dam (B) with a sluice (culvert) installed to drain down the reservoir when the sediment build-up on the bottom of the reservoir needs to be cleaned out. Small dams of this nature are constructed with overflow channels which enable water to spill over the dam back into the creek, allowing sediment and suspended solids to settle out of the stream and the water to continue down a grassed waterway. Late in the season when flows diminish, the reservoir can be drained and dried out to enable basic excavation. Depending on the accumulation rate, dredging may take place as occasionally as once every three to five years. The recovered organic matter can be leveled back into the field and re-used for crop production.

3. *Maintain an uncultivated grassed right-of-way adjacent to creek and reservoir.*

Both north and south stream corridors will be maintained as grassed waterways to stabilize the grade of the shoreline. The neglect of grassed areas results in brush and shrubs over just a few seasons. With the growth of heavier vegetation, swathing and baling are not possible and the channel (and reservoir shore) begins to revert to aspen growth.

4. *Provide a shelterbelt for wind protection and habitat on the land.*

The removal of the present aspen grove surrounding the reservoir and along the north channel constitutes a habitat area for not only beavers, but for other Prairie fauna as well. The shelterbelt on the western perimeter (H) will remain as a windbreak to provide protection to the cropland and shelter to habitat.

5. *Address the drainage of the adjacent neighbouring north quarter section of land.*
The owner of the neighbouring land parcel wanted to install a culvert to allow water to flow from the north parcel under the road allowance directly to the reservoir. This would have meant that a new waterway be constructed and grassed from (F) to the reservoir across several acres of farmable land. The neighbour wished to continue farming the road allowance where the surface runoff normally flows down to the existing culvert at the intersection (G). Because the neighbour is farming road allowance which would normally be maintained as ditch, a culvert will not be installed and a new grassed waterway from (F) to the reservoir will not be created. The neighbour will be encouraged to maintain the ditch and channel the runoff into the creek at the culvert by the intersection (G).

5.3.4 Implementation and Costs

Construction has not yet begun on this project because it is currently being submitted to SaskWater for review. The owner of this land parcel has investigated potential assistance mechanisms to make this stewardship initiative feasible following SaskWater review. Support for these initiatives is available from SaskWater at the provincial level, the PFRA at the federal, and often the rural municipality. The onus is on the farmer to initiate the project, seek the required approval, and coordinate the efforts of the stakeholders in the implementation and funding process.

On this land parcel, channel clearing and disposal is estimated to cost $800.00. Obstruction removal (beaver dam) costs are estimated at $200.00. Grassing the edge of the waterway and reservoir (where the aspen are removed) will cost $150.00 for an alfalfa-grass seed mixture to cover 10 acres of surface area. The small dam construction is estimated to cost approximately $7,500. Total estimated expenses for the project are $8,650.

Under the provincial "Channel Clearing Assistance for Rural Municipalities" program (through SaskWater), up to 50% of the expense incurred for tendering the vegetation and beaver dam removal may be reimbursed to the farmer. Under the Erosion Control Assistance Program, SaskWater will cost-share half of the expense of seeding a waterway to forage. If the land being grassed is Crown land (such as the road allowance draining the neighbour's land), the other half of the grassing expense is covered by the municipality. A farmer building a small backwater dam for the purposes of reducing sediment loading in the watercourse and preventing downstream flooding is eligible for reimbursement of up to 50% of the cost of the dam construction through the provincial Water Control Assistance Program. In addition to provincial assistance, the PFRA has often contributed in-kind dam designs (Appendix 8.5.1) to farmers trying to control flooding and maintain water quality.

With the subsidies available, the cost to the farmer of implementing the proposed reparative changes to this quarter section is $4,400. The farmer can recover some of the cost directly by baling the alfalfa and selling the bales for feed. Depending on demand, the price of bales fluctuate. But given an average price of approximately $30 per bale, the farmer could recover up to $400 from the sale of bales per season from this parcel of land.

5.3.5 Importance of Long-term Maintenance and Management

Following the improvements to the land, regular maintenance will be necessary to ensure that the farm does not require large-scale, expensive improvements again. If grassed areas are not swathed, the dense growth will again require the use of heavy equipment to remove brush. If shelterbelts are not maintained, they will expand onto farmland which should be producing crops. If the reservoir depth is not maintained, the usefulness of the dam will decrease and the farmer will not be able to maximize the use of the organic material from the sediment trap to enrich his/her soil.

The key to the success of any farming operation is management (Anderson et al., 1984). If farmers realize the benefits of stewardship over a long-term period of time then they are likely to engage in more sustainable farming practices. Using this example as a demonstration of how a quarter section of land can contribute to soil conservation through better land management, it is possible to see how effective the individual farmer can be in combating soil loss with the support of existing programs at a reasonable cost. It is therefore critical that the money and support personnel in organizations such as SaskWater and the PFRA be maintained or increased by the provincial and federal governments to ensure the sustainability of the agriculture sector.

6.0 COST OF IMPROVEMENTS

6.1 VALUE OF WASCANA CENTRE TO REGINA

The value of Wascana Lake to the City of Regina and the Saskatchewan Capital Region has not been extensively studied from an economic perspective. The lake is the centerpiece of a manicured greenspace that attracts thousands of visitors to an array of different activities and permanent functions over the course of the year. An approximation of the tangible economic benefits from the permanent functions of Wascana Centre was calculated to provide a frame of reference to illustrate the contribution that visitor (non-Regina) dollars provide to the local economy. The calculation was based only on tourist visits and was designed to be a rough approximation of the contribution that six permanent functions around the lake make to the local Regina economy and bring to Wascana Centre. The following functions were tracked for their out-of town visits in 1996 and the approximate head counts were as follows (figures obtained from respective locations as referenced in bibliography):

		Out of Town Visits
1.	Royal Saskatchewan Museum (confirmed 65-70% out-of-town)	99,033
2.	Mackenzie Art Gallery (based on 65-70% out-of-town)	77,913
3.	Saskatchewan Science Centre/IMAX Theatre (confirmed 50% out-of-town)	115,000
4.	Saskatchewan Centre of the Arts (conventions & theatre) (based on 50% out-of-town)	113,578
5.	Legislative Assembly Tours (based on 50% out-of-town)	20,000
6.	Other Wascana Centre Visits to: Wascana Place, Diefenbaker Homestead, Willow Island, Nature Walks, Ferry Boat Rides, and Gift Shop (based on 65-70% out-of-town, except Gift Shop- 100%)	23,659

The total number of estimated out-of town visits to these six permanent functions at Wascana Centre for 1996 was 449,183 people. Some functions (such as the Legislature) do not charge for tours, while others (such as Centre of the Arts concert performances) were not tracked and could not be credibly estimated. The total admission fees which were able to be approximated, and other known revenues based on the estimated out-of-town visits were as follows (WCA Monthly Visitations, 1996):

Recorded income from Wascana Centre:	
Gift Shop revenues	$20,000
Ferry Boat Rides	6,000
Parking Tickets	6,500
Saskatchewan Science Centre:	
Adult out-of-town, 50% of non-tour	258,500
Children out-of-town, 50% of non-tour	176,250
Children out-of-town tour group rate ($3.75ea)	78,750
Royal Saskatchewan Museum (hall rental)	2,000

The total admission and other revenue for 1996 was approximately $548,000.
Based on the assumption that an average family/group size is four individuals, and one in four pays $30.00 for the transportation costs (one fill of gasoline), one in four pays $80.00 for accommodations (one night hotel), each visitor purchases one meal not exceeding $7.50, and each visitor spends $20.00 of his/her buying power on miscellaneous items (books, clothes, shoes, groceries, etc.) while in the city, the annual contribution of the 449,183 out-of-town visitors to Regina is $24,705,065.00. Including the admission and other revenue, the total annual net worth is approximately $25,530,065.00.

The importance of having Wascana Centre within the city is illustrated by the estimated annual net worth of out-of-town dollars. Not included are 211 special events that Wascana Centre hosted in 1996 which were not tracked, and likely brought several thousand additional visitors into the city. These included the annual Waskimo Festival, Mosiac, International Children's Festival, and the annual Dragonboat Festival.

The tourism visits from non-Regina residents bring money which might be spent elsewhere into the city. Regina also provides many facilities for a provincial population which is primarily rural based, resulting in many out-of-town rural residents using urban facilities which their own communities cannot afford to provide. This extends far beyond the Wascana functions included here into the health care sector, post-secondary education, the performing arts, Saskatchewan Roughriders football club, and specialized retail (Newton, 1997). The relationship between Regina and its hinterland is mutually beneficial and interdependent.

6.2 RESTORING LAKE DEPTH

The problem of Wascana Lake's decreasing depth will likely warrant a large expenditure by the Wascana Centre Authority to increase the water level and preserve the functions and appearance of the lake. If the choice is made to pursue lake deepening or shore raising, the costs will be significant. Although the sedimentation problem will be recurrent, by reducing the rate at which the sediment is transported through the watershed and into Wascana Lake, the effectiveness of any depth-increasing option can be improved. Other problems resulting from deposition on the lake bed, such as weed growth and eutrophication will not be further exacerbated.

The costs for deepening the lake using a dredging operation were cited for minimum, moderate, and maximum depths. The following illustrates the cost projections for lake deepening inflated to 1996 dollars by 7.5% (National Consumer Price Index):

TABLE 6.2.0
COST ESTIMATES OF LAKE DEEPENING
(Pentland, 1991)

Depth	1991 Dollars	1996 Dollars
Minimum	$14,000,000	$15,050,000
Moderate	$39,000,000	$41,925,000
Maximum	$47,000,000	$50,525,000

The corresponding average depths for the deepening estimates suggest that the lake would be deepened to one metre for the minimum depth, 3 metres for the moderate depth, and 5 metres for the maximum depth (Pentland, 1991).

Given the present rate of infill at 6,300 tonnes of sediment per year, the return period for the minimum deepening to the lake's present average depth would be approximately 26 years. The infill rate to today's approximate depth with the moderate deepening would give the reservoir about 80 years, and the maximum deepening would be approximately 130 years. This assumes that farming practices would not deteriorate, or that further channelization projects and drainage of wetlands would cease to occur. Any of these actions would increase the infill rate thereby decreasing the life of the reservoir respectively.

A combination of the watershed improvements if implemented today would permanently reduce the rate of infill by approximately 15% (with proper monitoring) and increase the effectiveness of any lake deepening initiatives. With watershed improvements fully implemented today in conjunction with a minimum deepening of the reservoir, the return period to the present average depth would increase to approximately 31 years. The infill rate with the moderate deepening would increase to about 95 years, and the maximum deepening would increase to an estimated 150 year return period to the present average depth. The physical advantage of depths greater than approximately 2.0 metres would be the elimination of the need for weed harvesting (cyclamation).

6.3 WATERSHED IMPROVEMENT COSTS

The tangible costs of the recommended improvements to the watershed are based upon the estimates provided from similar previous projects and their administration costs at 1996 dollars. The amounts quoted are merely estimates from the sources/organizations named in Section 5.0 - Remediation.

Re-grassing projects were based upon the combined cost of seeding a grass/alfalfa mixture and the fuel/equipment cost at $20/acre (Waggoner, 1996). The 80 acres along Wascana Creek would likely cost approximately $1,600.00, and re-grassing at side lateral junctions and tributary creeks (estimated 36 acres) would cost $720.00. The budgeting for an additional 200 acres of grassing along road ditches ($4,000.00) would ensure that any new road improvement projects would be suitably covered following construction. The continuance of private farm land stewardship grants to cover 1,000 acres of re-grassing would require that $20,000.00 be allocated. The estimated amount needed to cover the re-grassing initiatives would be approximately $27,000.00.

Pooling and riffling projects were quoted by Manitoba Natural Resources (MDNR) as costing approximately $30,000.00 each for a series of 8-10 one hundred metre intervals. The headwaters of Wascana Lake and the high erosion risk area near Tyvan are two likely locations which should be immediately evaluated regarding feasibility. In addition, pooling and riffling will be necessary in some upper reaches of the watershed namely the approximately ten zones along major tributaries. This would account for an additional expenditure of approximately $300,000.00. The estimated amount needed to cover the pool and riffle projects would be about $360,000.00 to be administered and tendered by the Conservation & Development Authority with Environment and Resource Management, and Saskatchewan Agriculture.

Slope stabilization at the side laterals would involve the expense of hauling riprap or boulders to the streambanks at approximately $10,000.00 per junction based on MDNR hauling figures. To address the eight laterals identified on Illustration 5.1.2, approximately $80,000.00 would be spent. Gulley maintenance should constitute an additional $20,000.00 for U-ditch sculpting at approximately $250.00 per 10 metre of stabilized slope. It is not known how extensive gulley erosion is in the watershed (except around side lateral junctions) therefore the suggested figure should be confirmed with further research. Re-grassing would follow from the road ditch budget. The estimated amount needed to address slope stabilization would be about $100,000.00. This would be administered through SaskWater, the rural municipalities and tendered by the Conservation & Development Authority.

Suitable locations should be determined for possible weirs and reservoirs in upper reaches of the watershed as part of creating a small dam network. These dam locations should be determined with gulley locations in mind so that both restorative strategies are developed to address the problems together. This research and design should be conducted by an appropriate consulting team to report back to the Conservation and Development Authority as part of a detailed Watershed Management Plan. Approximately $25,000.00 should be budgeted for this portion of the research. An additional amount of about $20,000.00 should be allocated for the assemblage of the Watershed Management Plan to specify the details of implementation, conduct stakeholder input sessions, a suitable timeline, and more precise economic figures.

Small dams along the identified tributary creeks (Section 5.1.5) will likely be similar in design to the multi-purpose weirs used in the Tobacco Creek project in southern Manitoba. The cost of these dams ranged from $3,826.00 to $22,783.00 with the average at about $8,900.00 (Oborne, 1995). Assuming a need for approximately 3-4 dams per subwatershed, the cost would be approximately $176,000.00.

A complete wetland inventory (likely using a geographical information system) will need to be completed prior to the initiation of any land exchange program. Though part of this has been completed by Ducks Unlimited, an additional $3,500.00 will likely be needed to complete an inventory for the Upper Wascana Creek Watershed (Ashley, 1997). An additional GIS expense will be incurred for generating subsequent Erosion Risk Maps for the watershed as well as actual field measurements to monitor the sediment loading at the headwaters of Wascana Lake. The approximate cost of the mapping and field testing is $1,500.00. The cost of developing a land exchange program between farmers and rural municipalities would involve administrative costs and the hiring of personnel. The estimated cost for program implementation would be about $70,000.00 to cover these expenses.

The estimated total for implementing the recommended changes to the watershed, including the development of a detailed watershed management plan would be approximately $783,000.00. Governmental and non-governmental funding sources have been specified in Section 5.2, but funding formulas and amounts have not been articulated. These details must be specified through the Watershed Management Plan using this issue identification process and subsequent recommendations to frame the continued planning process.

6.4 LONG-TERM SAVINGS

6.4.1 Real dollars

Implementation of a long-term Watershed Management Plan which includes all of the stated recommendations will result in savings to both urban and rural areas. The savings may be illustrated with a comparison of the cost of the land stewardship recommendations and the lake deepening figures. Amounts are based on 1996 figures.

The cost associated with the Minimum Lake Deepening Option is $15.1 million and is estimated to have an infill cycle of 26 years. This means that if the depth of Wascana Lake was increased today, the minimum lake deepening procedure would need to occur again in succeeding intervals of 26 years, 52 years, et cetera. The estimated buying power of $15.1 million spent in 26 years discounted by a factor of 0.0626 would be $945,000.00 in today's dollars.

The Moderate Lake Deepening Option cost is $41.9 million and is estimated to have an infill cycle of 80 years. With the implementation of the moderate deepening of Wascana Lake today, the procedure would need to be repeated in 80 year intervals (assuming a fairly constant rate of infill over time). The estimated buying power of the $41.9 million in 80 years discounted by a factor of 0.0418 would be $1.75 million in today's dollars. The infill cycle for a Maximum Lake Deepening Option is 130 years at a cost of $50.5 million. When discounted by a factor of 0.0400, the equivalent is $2.02 million in today's dollars.

When initiated in conjunction with the Minimum Deepening Option, the stewardship initiatives permanently decrease the rate of infill and add five years to the 26 year infill cycle. This translates into approximately 31 years between minimum lake deepening operations. The total estimated cost of implementing the major recommendations is $783,000.00 to improve watershed sedimentation management. If this expenditure was made today in conjunction with minimum lake deepening (totaling $15.9 million), it would mean that the minimum lake deepening procedure would be deferred by five years before being initiated again. The estimated buying power of the $15.1 million in 31 years discounted by a factor of 0.0578 would be $873,000.00 in today's dollars.

Although an additional $783,000.00 spent today may seem like a large investment to decrease the infill rate to 31 years, when made in conjunction with a lake deepening option, it saves money in the long-term through a deferral of the more expensive deepening options by decreasing sediment loads in the watercourse. The immense cost of deepening the lake to three metres or five metres today, would mean expenditures of $41.9 million or $50.5 million respectively compared to the $15.9 million needed for minimum deepening and watershed improvements.

As the discounted figures suggest, the costs for the moderate and maximum deepening options would not be as efficient an expenditure over the long-term. Watershed improvements in conjunction with a minimum deepening option would still be more cost effective than the minimum deepening option alone because of the five-year delay in the rate of infill caused by decreased sediment loading. The money saved by *not* investing in a moderate or maximum lake deepening strategy could be better spent on other programs - such as the $783,000.00 sediment reduction strategy

An investment in decreasing the sediment loading through improvements to the watershed will save money by reducing the frequency of expensive lake deepening projects in Wascana Centre. It will contribute to a cost effective management scheme that will make the urban and rural functions more compatible with each other.

6.4.2 Opportunity Cost

Savings over very long-term periods of time are difficult to quantify because of the immense number of variables which can alter estimate figures. In terms of relative benefits though, the implementation of the recommended improvements to the watershed will result in decreased economic costs to both urban and rural taxpayers over time.

The inability to eliminate sedimentation from a natural watercourse means that Wascana Lake will always be faced with the problem of sedimentation. Maintaining this lake in the prairie context will thereby require that expensive structural operations occasionally occur to restore the depth of the reservoir. By investing in the development of a plan which reduces the rate of sedimentation, these operations will not need to occur as frequently. This investment is worthwhile to both urban and rural residents.

Wascana Lake rewards the City of Regina with estimated net benefits totalling $25 million from out-of-town revenues because of the permanent functions (governmental, educational, recreational, etc.) which exist there. Although it costs the City to maintain this greenspace, the cost is also shared by the rural tax base through Government of Saskatchewan support in the Wascana Centre Authority partnership. The tripartite agreement (with the University of Regina) ensures that pristine greenspace and diverse activities are maintained to ensure a strong Capital Region in the province. If an investment in a watershed management initiative with rural partners will defer the inevitable expenditures needed to maintain the lake and save money in the long-term, it is clear why it is to Regina's benefit to participate in such an initiative.

The growth and development of the Saskatchewan economy relies heavily upon the success of the agriculture industry and its crop production. Of the 460,000 people in the Saskatchewan workforce, 71,000 see direct employment in the agriculture sector (Elliott, 1997). The management of the soil resource is therefore essential to ensuring a healthy provincial economy. With erosion still resulting in losses of over 5% of current total crop production, the accumulated estimated losses to the provincial economy are nearing the ¼-billion dollar mark (Anderson et al., 1984). Not only does erosion shortchange the province of economic benefits in lost earnings, but costs taxpayers more to fix as the problem continues to increase over time. It is therefore imperative that the Saskatchewan government actively finance a watershed management initiative in the interest of maintaining the Capital Region, and protecting a piece of the farm economy.

In addition to economics, urban and rural residents will save in other ways as well. Savings such as the improved health of an entire ecosystem, or the aesthetic beauty of an urban greenspace often seem intangible in economic terms. The preservation of wetland habitat and riparian areas will ensure that a diversity of species and healthy food chain continue to exist in conjunction with human activities in the prairie ecosystem. Within Wascana Centre, that same diversity will be encouraged to exist in the urban environment through the maintenance of the human-constructed reservoir. By preserving Wascana Lake and the greenspace around it, Regina residents and non-Regina residents alike will continue to enjoy one of the most beautiful urban parks in Canada.

7.0 CONCLUSIONS

Wascana Centre is a location that is valued by not only Regina residents, but by the entire province as well. The lake falls under the jurisdiction of SaskWater and the surroundings by the Wascana Centre Authority. These organizations will ultimately decide the fate of Wascana Lake and whether or not a major project will feasibly address the issue of lake depth. The fact remains that if a major project is undertaken, the main cause of the problem - sedimentation - will remain largely unaddressed.

It is in the best interest of economics and the environment that the entire watershed be addressed in terms of how sedimentation can be reduced to a level where farming is sustainable, and disturbance to urban functions is minimized. This will not be achieved by unilateral action or by a single initiative. It will take a partnership of organizations to work through a coordinating body such as the Conservation and Development Authority to accept various responsibilities for specific tasks and duties. It is imperative that communication between these organizations is maintained so that duplication and redundancy is avoided.

The services of a planning consultant should be employed to assist the coordinating body in facilitating a process where public input and open dialogue can occur between organizations and stakeholders. The consultants would contribute specific technical knowledge on cost estimates and the development of an implementation strategy for the watershed. The watershed management plan should be informed by the intentions of the Wascana Centre Authority on how it intends to manage the lake in the context of Wascana Centre. Presently, all remediative measures proposed in this report are compatible with the Wascana Lake Management Plan Issue Identification study.

Geographical information systems are an essential mechanism for accurately conducting spatial study at the watershed scale. Erosion risk maps provide a useful tool for planning remediative design based on sheet and rill erosion estimates, but are deficient in responding to ephemeral gulley erosion. Further study needs to take place for clearer identification of gulley erosion locations. Erosion risk maps need to be kept current to evaluate the effectiveness of changes to land management. In addition, the use of a GIS should be employed to complete an inventory of wetlands in Saskatchewan and further explore the possibility of a Land Exchange Program. The uses of geographical information systems are very useful in these capacities.

The responses to various problems described in this report assume that not only will the traditional sources of funding such as the named grants and government agencies be re-visited, but that non-governmental sources and new partnerships with the private sector be forged as well. This might therefore be further addressed in a watershed management plan or future research. Funding potential currently exists to operationalize elements of the identified stewardship initiative in this report. As was clearly stated in Section 6.0, meeting the expenses of today's sediment management stewardship initiative will result in a continuance of revenues such as those brought into the City of Regina because of Wascana Centre, or millions of dollars of savings to the Saskatchewan farm economy due to reduced soil loss.

Not to be underestimated is the capacity of the individual farmer to effect changes which will improve the environment. Often, farmers are influenced by what will advance the highest economic return without regard for the long-term impacts. With education, this too is changing. Incentives must continue to be innovated to make more sustainable farming equally profitable for the farmer over the short-term.

Although the reparative measures are primarily rural-based, the impacts reach beyond the rural region and into the heart of Regina. There is a very real opportunity for a coordinated use of resources to make a contribution to address the age-old problem of soil loss in the Upper Wascana Creek Watershed - and recognize the responsibility that humans have toward managing their actions and use of resources in the environment as efficiently as possible.

APPENDICES

8.2.1 Appendix - PUBLIC ISSUE IDENTIFICATION FOR WASCANA LAKE MANAGEMENT PLAN - DETAILED ACCOUNT (WCA Wascana Lake Management Plan, 1996)

ISSUE	DESCRIPTION	QUESTIONS	COMMITTEE ACTION
Water Quality Safety Expense	- deepen the lake - control/eliminate weeds, algae, odour - impacts on surface use - control bacteria - entanglement in weeds - weeds ruin rudders, paddles, etc.	- What is the level of lake monitoring for quality, volume and sedimentation? - What are the upstream sediment sources? - What are the upstream influences on water quality? - What are the influences of wildlife on water quality? - What pressures need to be applied to improve water quality?	
Aesthetics Lifestyle	- look and smell of lake limits use of lake and shoreline - a tourist "detraction" - more individual and family recreation if lake and shoreline improved - more opportunity for improved youth lifestyle through sport and recreation if water and shoreline improved		
Use of the Lake Surface	- need navigable water throughout boating season - some groups using lake less - sailing difficult due to shallow lake - maintain part of lake as deep, clear pool	- If the water quality were improved and weeds eliminated, would groups return to using lake? - What other park facilities would be enhanced or would contribute to lake enhancement?	

ISSUE	DESCRIPTION	QUESTIONS	COMMITTEE ACTION
Protocols Required Increased Recreation Opportunities Upper Pond Use	- some groups using shoreline and lake more - leads to conflicts between groups - more pedestrian walkways, cyclists paths - greater use of marina - more planned winter recreation - sport fishing - never motor boats - the upper pond could be used for some recreational activities e.g. canoeing		
Geese Conservation	- geese must be controlled, numbers reduced and location restricted - manure is a health hazard and unsightly - increase utilization of conservation areas - build a boardwalk		
Boardwalk and Interpretative Centre	- build a boardwalk from Science Centre to Display Ponds - need a boardwalk classroom - add wetlands programs, pond study workshops, etc for school groups and the public - it is the largest urban park in North America without an interpretative centre		

ISSUE	DESCRIPTION	QUESTIONS	COMMITTEE ACTION
Promote Existing Recreation Opportunities	- few people know about paddle boats and ferry rides - some picnic areas are not well known		
New Opportunities	- market as a venue for films, etc. - fund raising such as lottery, floating restaurant, light show		
Flooding	- farmers concerned about flooding of their land - purchase land to resolve flooding concerns	- What are the upland concerns? - How can we avoid having to react to crisis situations?	
Plans	- co-operative plan needed involving farming community and city - water release plans should not jeopardise one group while benefiting another - plan water flow during dry seasons - create an atmosphere of commonality among the three partners (University, City, Government)		
Use of Lake Water	- reduce use of lake water		

ISSUE	DESCRIPTION	QUESTIONS	COMMITTEE ACTION
Shoreline	- reduce number of geese dramatically - more planned sites for socialising, etc. - frequent gaps and softened edges - more pedestrian pathways and separate pathways for different types of activities - need washrooms, garbage receptacles, shelters, change rooms, refreshment areas	- What is happening to the shoreline with the fluctuating levels of the lake?	
New Development	- museum of Saskatchewan trees, shrubs and flowers - develop area south of legislative buildings for walkers - close a portion of Wascana Drive and Lakeshore Drive to vehicles		
Eco-system	- need to manage whole basin not just West Lake - create a balance between recreation and marshland, between irrigation and recreation - make East Lake marshy and natural and West lake deep and recreational		

8.2.2 Appendix -

CROP RESPONSE TO FERTILIZERS ON ERODED and NON-ERODED SOILS (Bradley, R.A. 1970, 14th Annual MSS mtg.)

Location & Crop	Nutrients Applied (lb/ac)			Yield (bu/ac)	
	Nitrogen	Phosphates	Potassium	Eroded	Non-eroded
Barley (Kenton)	0	0	0	8	25
	38	36	0	27	37
	68	36	0	40	46
Barley (Kenton)	0	0	0	6	12
	40	40	0	37	40
	68	40	0	44	50
Wheat (Fairfax)	0	0	0	7	41
	30	40	0	29	46
	106	40	0	27	48
Wheat (Alexander)	0	0	0	8	23
	7	31	0	12	18
	72	31	0	25	24
Wheat (Killarney)	0	0	0	9	50
	67	29	0	34	59
	96	29	0	23	57
Wheat (Deloraine)	0	0	0	26	37
	68	36	0	53	50
	97	36	0	42	50
Wheat (St.Alphonse)	0	0	0	17	35
	39	38	0	27	42
	99	38	0	27	44

8.3.1 Appendix - SEDIMENT MEASUREMENTS ON WASCANA CREEK NEAR RICHARDSON (Pentland, 1991)

WASCANA CREEK RURAL SEDIMENT
from Pentland Water Resource Consultants Ltd.

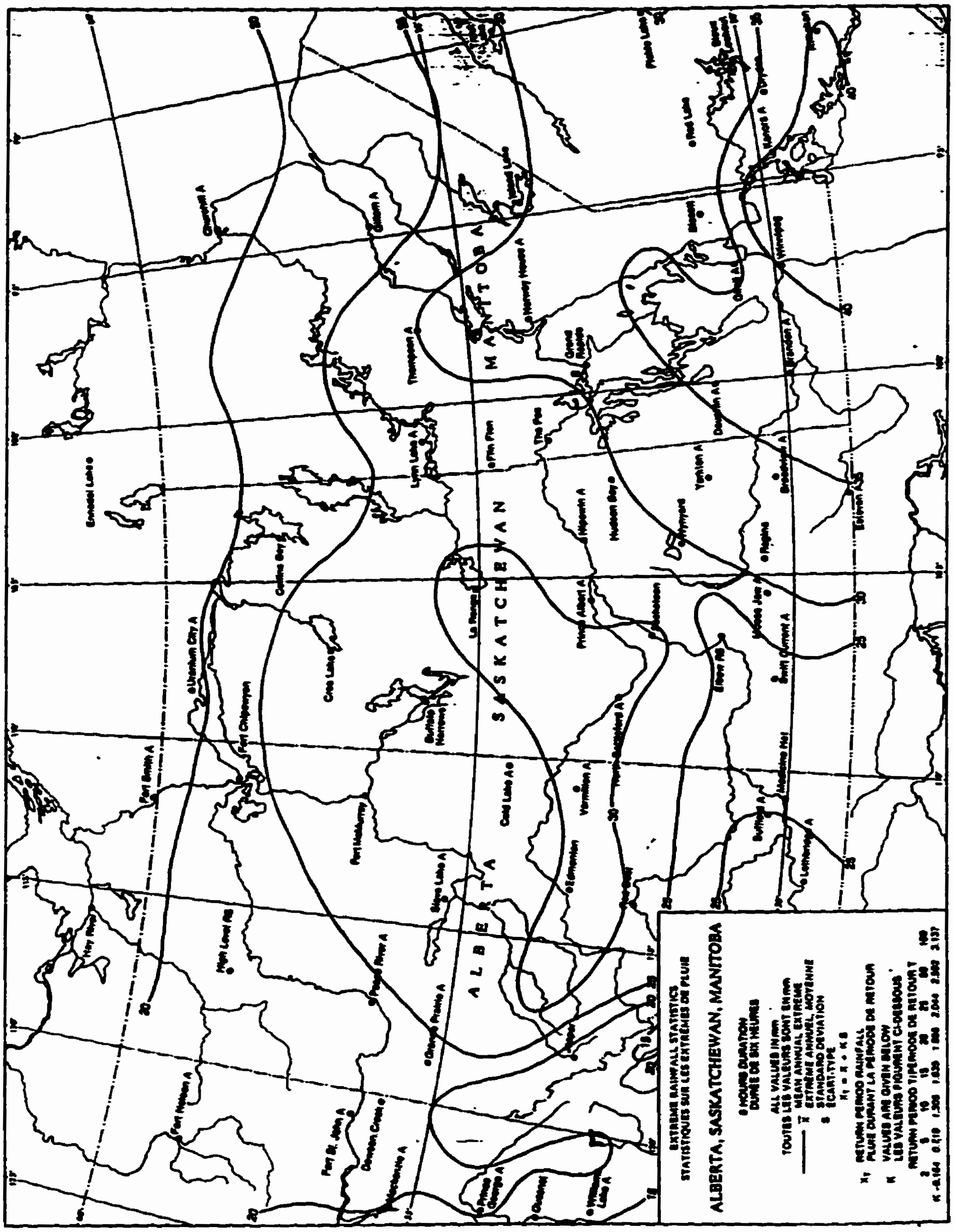
Year	Sedley Flow Volume dam^3	Richardson Sediment tonnes	Estimated Sediment tonnes
1955	18,900		9,000
1956	26,500		14,000
1957	3,520		980
1958	2,760		710
1959	114		10
1960	5,560		1,800
1961	68		5
1962	1,440	585	585
1963	357	72	72
1964	963	80	80
1965	3,670	472	472
1966	4,230		1,250
1967	6,000		2,000
1968	290		40
1969	13,900	7,665	7,665
1970	12,900		5,400
1971	14,800		6,500
1972	3,600		1,000
1973	41		3
1974	31,000	32,100	32,100
1975	52,700	22,573	22,573
1976	41,100		25,000
1977	49		3
1978	3,070		820
1979	20,200		9,800
1980	4,870		1,500
1981	411		60
1982	21,200		10,000
1983	20,700		10,000
1984	2,860		750
1985	7,060		2,500
1986	3,020		800
1987	1,480		310
1988	14		0

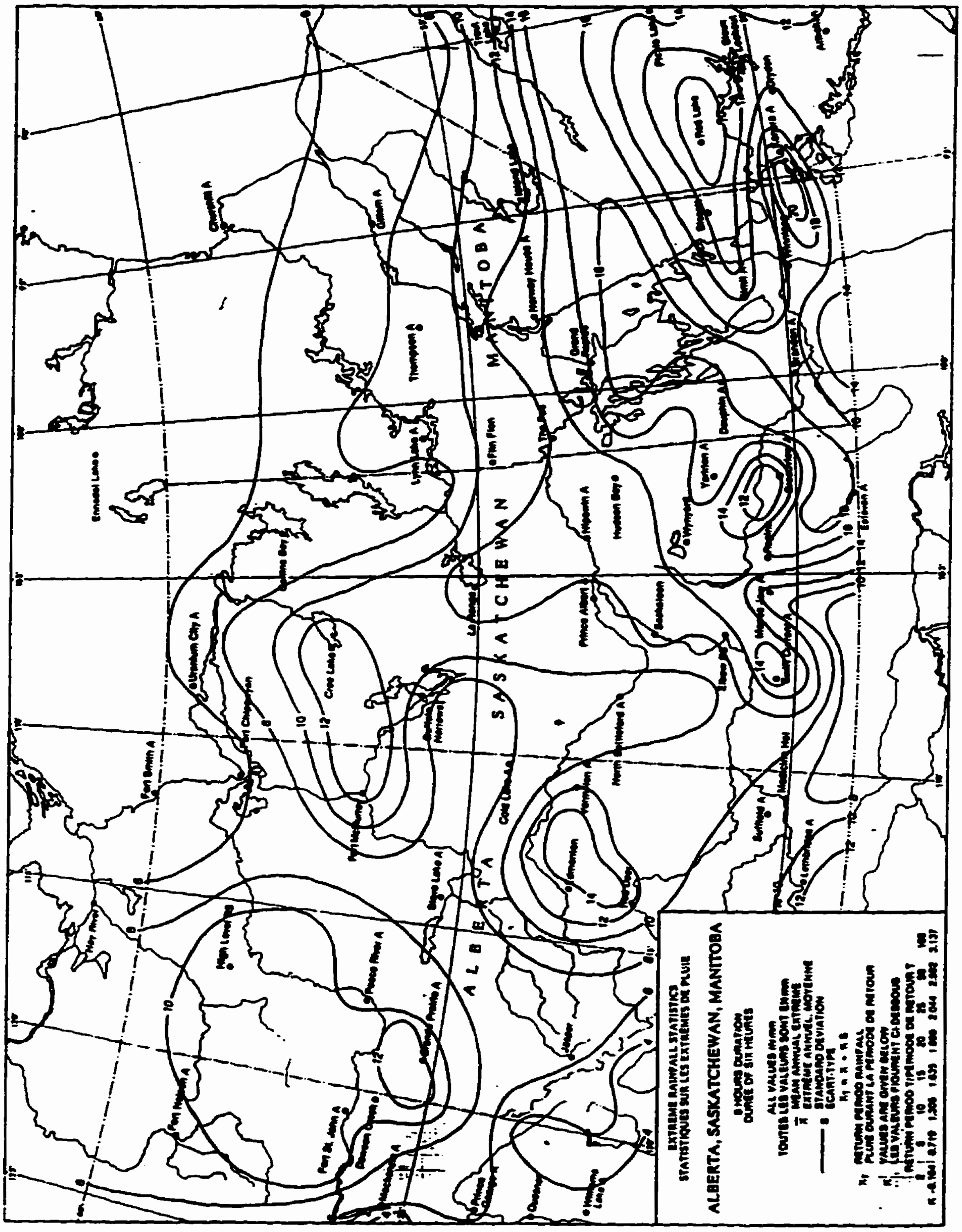
8.3.2 Appendix - CANADIAN CLIMATE CENTRE NORMALS (REGINA) (Environment Canada)

REGINA A
50° 26'N 104° 40'W 577 m

	JAN JAN	FEB FÉV	MAR MAR	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOÛT	SEP SEPT	OCT OCT	NOV NOV	DEC DÉC	YEAR ANNÉE	CODE CODE
Daily Maximum Temperature	-12.6	-8.1	-2.3	9.4	18.2	22.7	26.1	25.2	18.6	11.9	0.2	-7.7	8.5	1
Daily Minimum Temperature	-23.2	-19.1	-13.3	-2.8	3.9	9.0	11.7	10.4	4.6	-1.5	-10.4	-18.0	-4.1	1
Daily Temperature	-17.9	-13.6	-7.8	3.3	11.1	15.9	18.9	17.8	11.7	5.2	-5.1	-12.8	2.2	1
Standard Deviation, Daily Temperature	4.0	3.7	4.2	2.9	1.9	1.5	1.4	1.8	2.0	2.0	3.3	3.9	1.0	1
Extreme Maximum Temperature	8.9	15.6	24.4	32.8	37.2	38.4	43.3	40.6	37.2	31.1	23.3	15.0	43.3	
Years of Record	87	87	87	87	87	87	87	87	87	87	87	87		
Extreme Minimum Temperature	-50.0	-47.8	-40.6	-28.9	-13.3	-5.6	-2.2	-6.0	-16.1	-26.1	-37.2	-48.3	-50.0	
Years of Record	87	87	87	87	87	87	87	87	87	87	87	87		
Rainfall	0.3	0.6	2.1	14.3	43.6	79.6	53.3	44.8	36.0	11.4	1.4	0.7	287.2	1
Snowfall	20.0	16.3	16.3	10.9	3.2	0.0	0.0	0.0	1.8	8.2	14.2	20.8	115.7	1
Total Precipitation	16.8	16.1	17.8	23.7	46.4	79.6	53.3	44.8	36.7	18.8	13.5	16.7	384.9	1
Standard Deviation, Total Precipitation	10.3	9.4	12.3	14.6	31.5	46.5	30.5	31.2	31.2	16.2	9.8	8.2	93.9	1
Greatest Rainfall in 24 hours	4.3	7.1	17.8	30.2	57.2	160.3	76.5	78.7	78.8	31.2	20.8	9.7	160.3	
Years of Record	85	84	86	86	87	87	86	87	87	86	86	87		
Greatest Snowfall in 24 hours	14.0	19.1	25.4	23.2	19.8	7.6	T	0.0	21.6	21.3	23.9	14.2	25.4	
Years of Record	84	84	86	86	86	87	87	87	87	85	86	87		
Greatest Precipitation in 24 hours	14.0	20.3	25.4	30.2	57.2	160.3	76.5	78.7	78.8	31.2	23.9	13.5	160.3	
Years of Record	84	84	86	86	86	87	86	87	87	85	85	87		
Days with Rain	*	*	1	4	9	12	10	9	8	4	1	1	58	1
Days with Snow	13	10	9	4	1	0	0	0	1	2	8	10	58	1
Days with Precipitation	12	10	9	8	9	12	10	9	8	6	8	10	111	1

8.3.3 Appendix - 6-HOUR STORM DURATION MAP (Hogg and Carr, 1986)



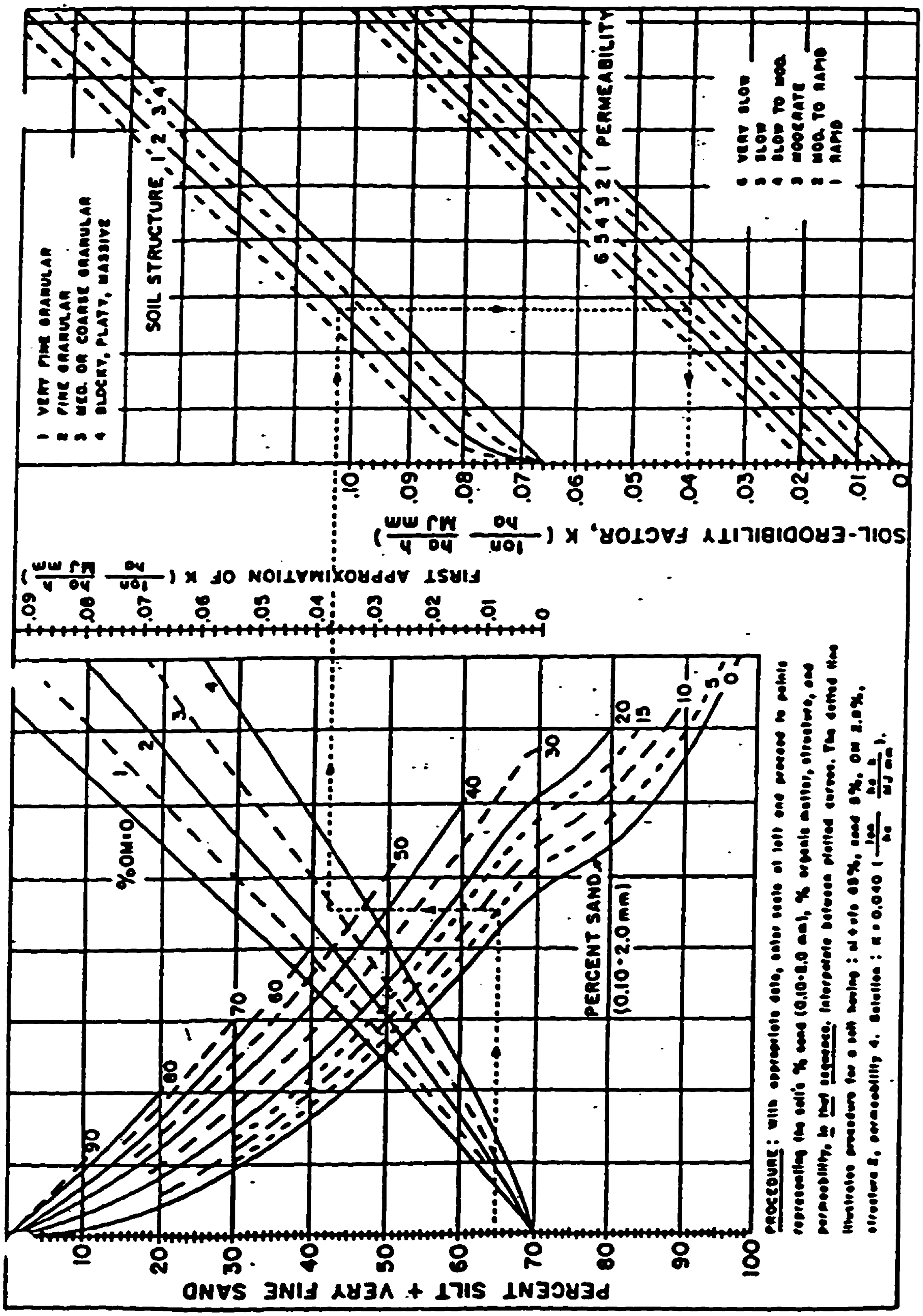

EXTREME RAINFALL STATISTICS
STATISTIQUES SUR LES EXTRÊMES DE PLUIE
ALBERTA, SASKATCHEWAN, MANITOBA
6 HOURS DURATION
DURÉE DE SIX HEURES

8.3.4 Appendix - REGINA AIRPORT RAINFALL EROSIVITY DATA
(calculated from Env't Canada data, and Hogg & Carr [1986])

<u>Regina Rainfall Amounts for Return Period X</u>

	2 yr storm 0.50 occurance probability	5 yr storm 0.20 occurance probability	10 yr storm 0.10 occurance probability	15 yr storm 0.07 occurance probability	20 yr storm 0.05 occurance probability	25 yr storm 0.04 occurance probability	50 yr storm 0.02 occurance probability	100yr storm 0.01 occurance probability
5 minute	7.1 mm	10.6 mm	13.0 mm	14.0 mm	15.2 mm	15.9 mm	18.1 mm	20.3 mm
10 minute	10.9 mm	17.0 mm	21.1 mm	23.4 mm	25.1 mm	26.3 mm	30.1 mm	34.0 mm
15 minute	12.8 mm	19.4 mm	23.8 mm	26.3 mm	28.0 mm	29.3 mm	33.4 mm	37.5 mm
30 minute	17.9 mm	26.7 mm	32.6 mm	35.9 mm	38.2 mm	39.9 mm	45.4 mm	50.9 mm
60 minute	21.5 mm	32.5 mm	39.8 mm	43.9 mm	46.8 mm	49.1 mm	55.9 mm	62.7 mm
2 hours	24.4 mm	38.5 mm	47.9 mm	53.2 mm	56.9 mm	59.7 mm	68.5 mm	77.2 mm
6 hours	28.4 mm	42.5 mm	51.9 mm	57.2 mm	60.9 mm	63.7 mm	72.5 mm	81.2 mm
12 hours	39.0 mm	54.9 mm	65.5 mm	71.4 mm	61.9 mm	78.8 mm	88.7 mm	98.5 mm
24 hours	43.0 mm	59.3 mm	70.1 mm	76.2 mm	80.5 mm	83.8 mm	94.0 mm	104.0 mm

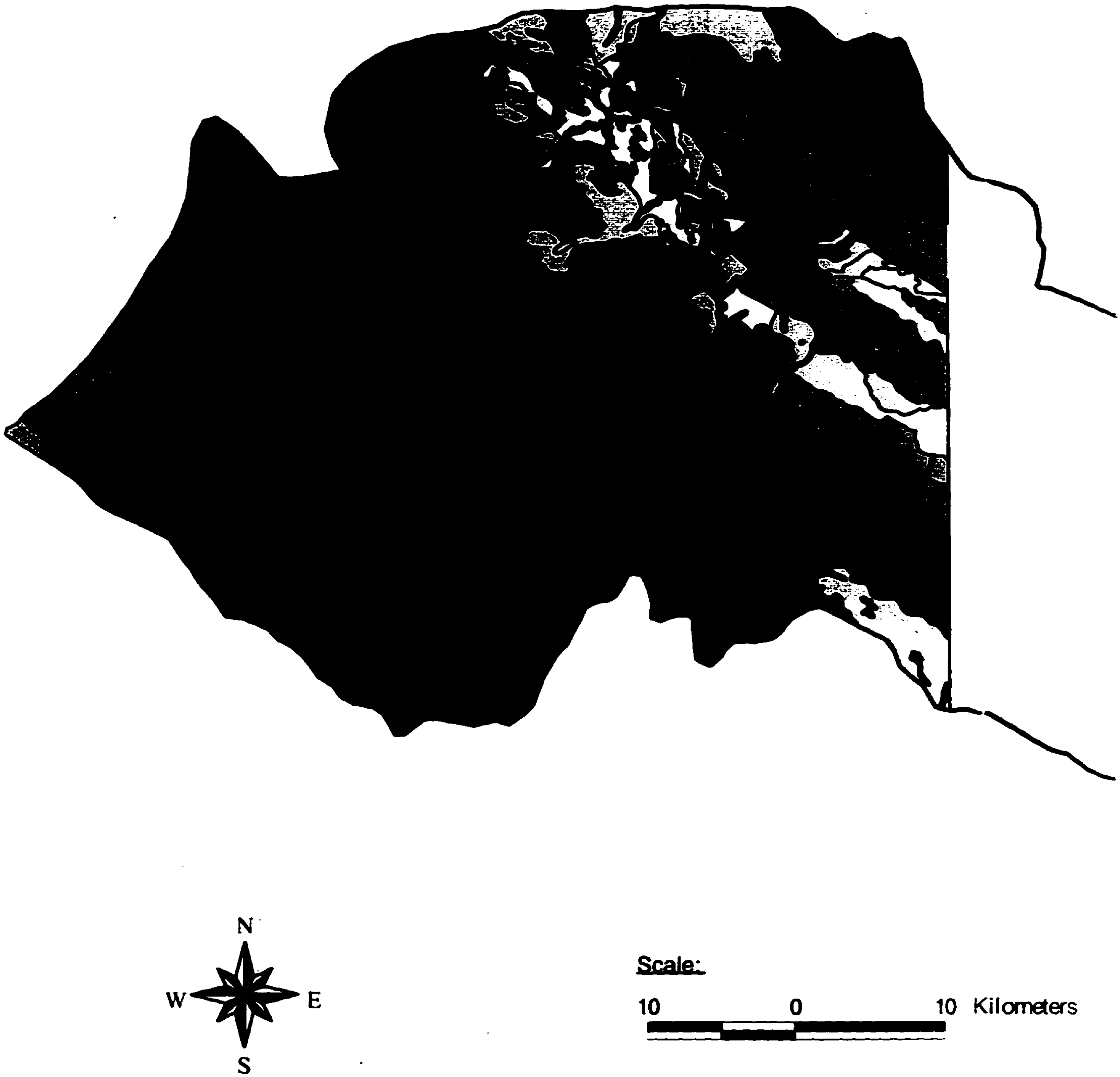
8.3.5 Appendix - SOIL ERODIBILITY NOMOGRAPH (Wischmeier et al., 1971)

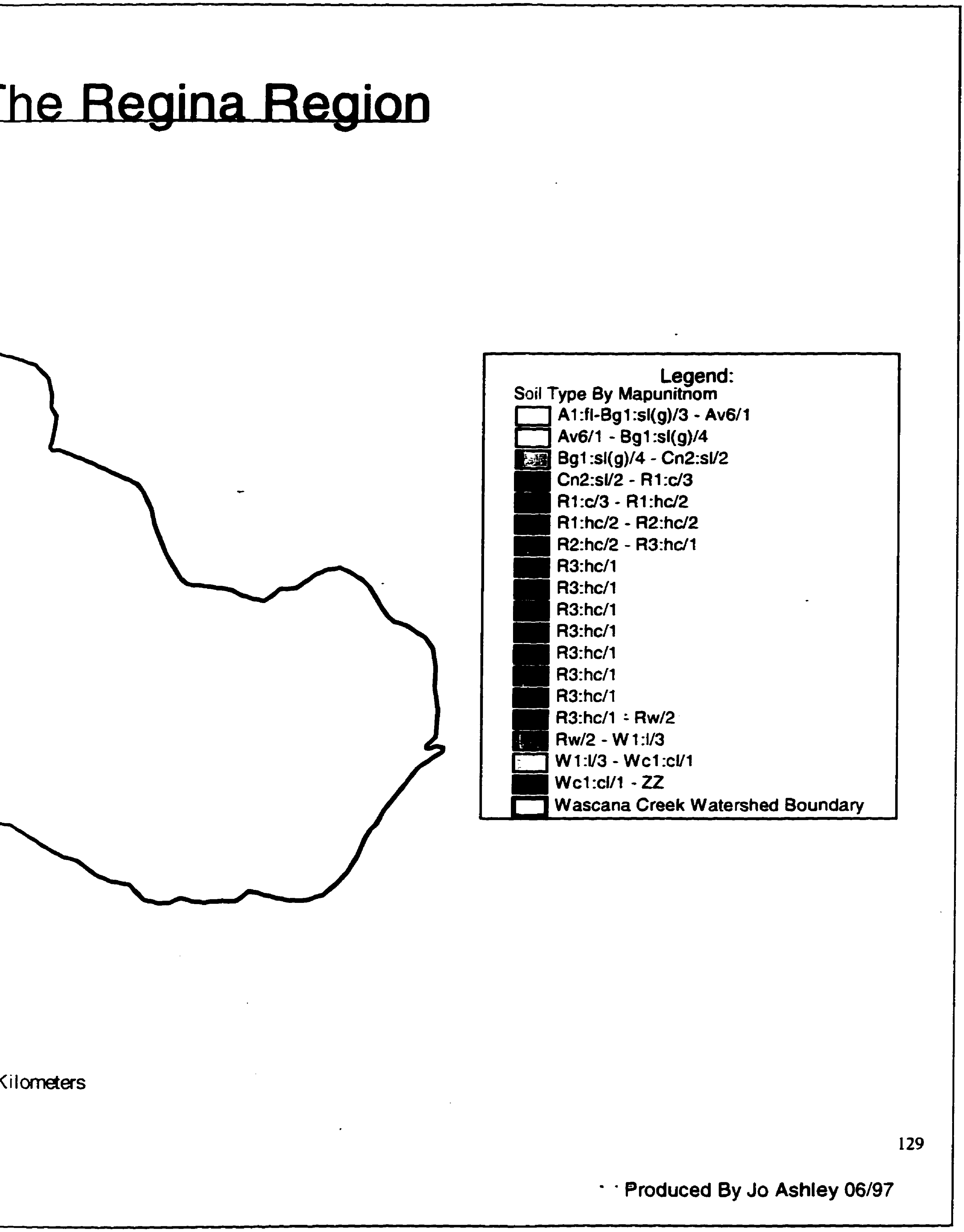


8.3.6 Appendix - SOIL ASSOCIATIONS, "K"-FACTORS, and SOIL MAPS for SOUTHEASTERN SASKATCHEWAN (Soil Maps: U of Sask.; K-factors calculated using nomograph)

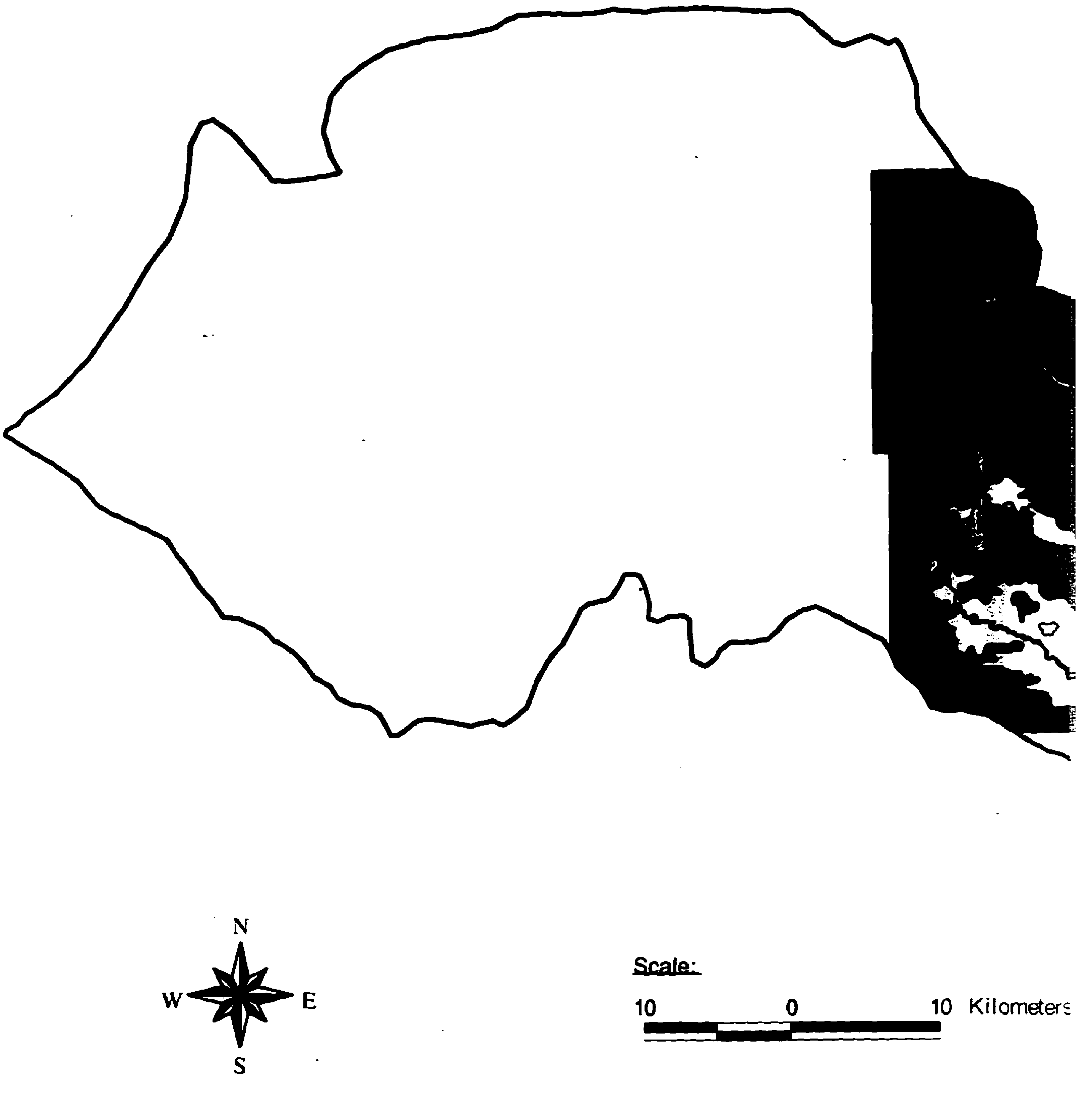
Ardill Association, Orthic Brown Series	Ad1	.025
Ardill, Calcareous Brown	Ad2	.024
Chaplin, Orthic Brown	Ch1	.013
Hatton, Orthic Brown	Ht1	.074
Fox Valley, Orthic Brown	Fx1	.031
Sceptre, Rego Brown	Sc1, Sc2	.015
Weyburn, Orthic Dark Brown	W1	.024
Weyburn, Calcareous Dark Brown	W2, W4, W5, WO2	.022
Weyburn, Eluviated Dark Brown	W3	.034
Weyburn, Calcareous Meadow	W6	.043
Amulet, Orthic Dark Brown	Am1	.021
Amulet, Calcareous Dark Brown	Am2	.022
Bigger, Orthic Dark Brown	Bg1	.009
Asquith, Orthic Dark Brown	A1	.028
Bradwell, Orthic Dark Brown	Br1	.045
Elstow, Orthic Dark Brown	E1	.048
Elstow, Calcareous Dark Brown	E2	.040
Regina, Rego Dark Brown	R1	.004
Regina, Orthic Dark Brown	R2	.005
Regina, Gleysolic	R3	.004
Brooking, Dark Brown Solonetz / Solod	Bk1	.018
Trossachs, Dark Brown Solonized Solonetz	T1	.033
Tuxford, Rego Dark Brown	Tu2	.025
Tuxford, Dark Brown Solonetz	Tu1	.030
Tuxford, Dark Brown Solod	Tu1	.027
Claybank, Eluviated / Dark Brown Solod	Ck1	.021
Oxbow, Orthic Black	O1	.022
Oxbow, Calcareous Black	O2, O4	.020
Oxbow, Low Humic Eluviated Gleysol	O5, O6	.001
Whitewood, Dark Grey Wooded	OWh1	.001
Edgeley, Orthic Black	Eg1 - 4	.022
Cudworth, Rego Black	Cd1	.048
Balcarres, Rego Black	Ba1, Ba2	.020
Caron, Dark Brown Solonetz	Cn1, Cn2	.028
Rouleau, Gleysolic	Ru1, Ru2	.004
Asquith, Dark Brown Orthic	Aq1	.028
Asquith, Dark Brown Calcareous/Orthic	Aq3	-
Asquith Alluvium, Orthic	AqAv5	-
Asquith Estevan, Orthic/Solonetzic	AqEs5	-
Asquith Grandora, Orthic/Solonetzic	AqGd5	-
Asquith Hanley, Orthic/Solonetzic	AqHv5	-
Asquith Wingello, Orthic/Solonetzic	AqWg5	-
Brooking Amulet, Solonetzic/Orthic/Calcareous	BkAm1, BkAm2	.020
Bradwell, Dark Brown Orthic	Br5	.045
Bradwell Wingello, Orthic/Solonetzic	BrWg5	.045
Estevan, Solonetzic/Orthic	Es9	.026
Estevan, Solonetzic/Solodic	Es11	-
Estevan, Solonetzic	Es12	-
Estevan Bradwell, Solonetzic/Orthic	EsBr1	-
Elstow, Orthic	Ew1	-
Hanley, Solonetzic	Hv5	.028
Hanley, Solonetzic/Solodic	Hv8	-
Hanley Estevan, Solonetzic/Solodic	HvEs8	-
Roughbark, Orthic	Rb1	.024
Runway, Variable	Rw	
Tuxford Estevan, Solonetzic	TuEs2	.027
Weyburn Brooking, Orthic/Calcareous/Solonetzic	WrBk5	.019

Soil Type For The R

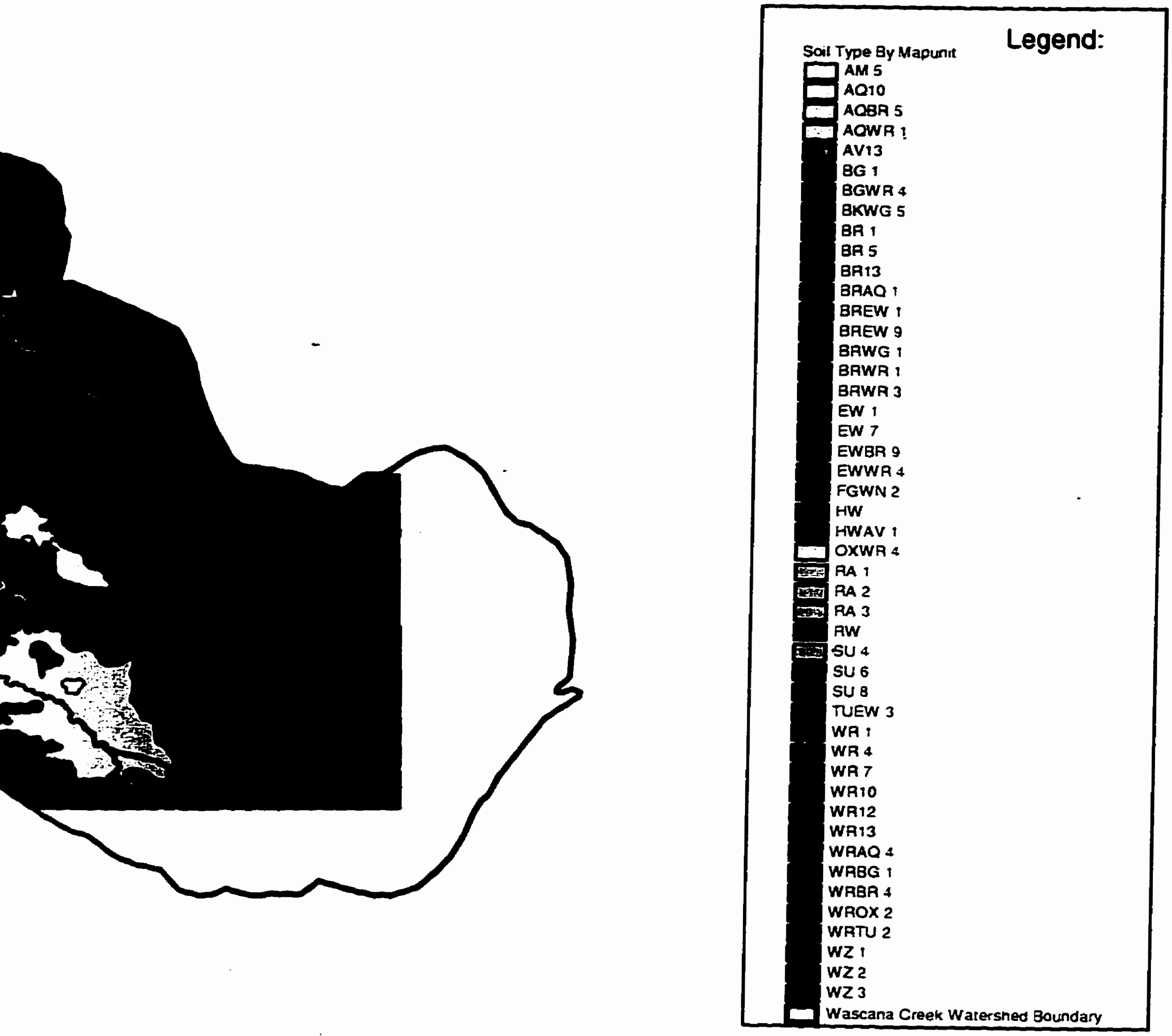



he Regina Region
Legend:
Soil Type By Mapunitnom
A1:fl-Bg1:sl(g)/3 - Av6/1
Av6/1 - Bg1:sl(g)/4
Bg1:sl(g)/4 - Cn2:sl/2
Cn2:sl/2 - R1:c/3
R1:c/3 - R1:hc/2
R1:hc/2 - R2:hc/2
R2:hc/2 - R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1
R3:hc/1 - Rw/2
Rw/2 - W1:l/3
W1:l/3 - Wc1:cl/1
Wc1:cl/1 - ZZ
Wascana Creek Watershed Boundary
ilometers
Produced By Jo Ashley 06/97

Soil Type For The Rural Munic



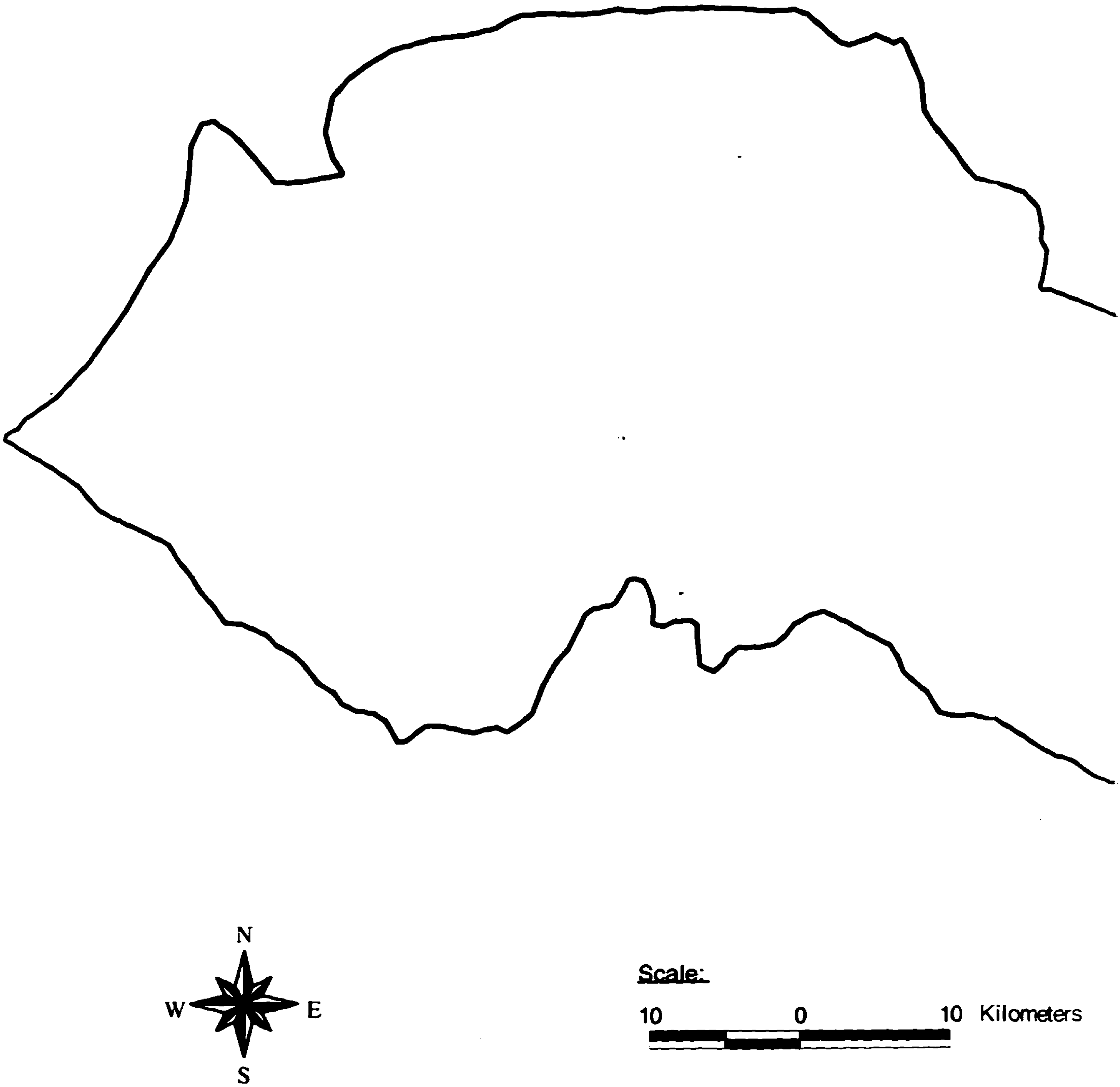
unicipality Of Francis Region



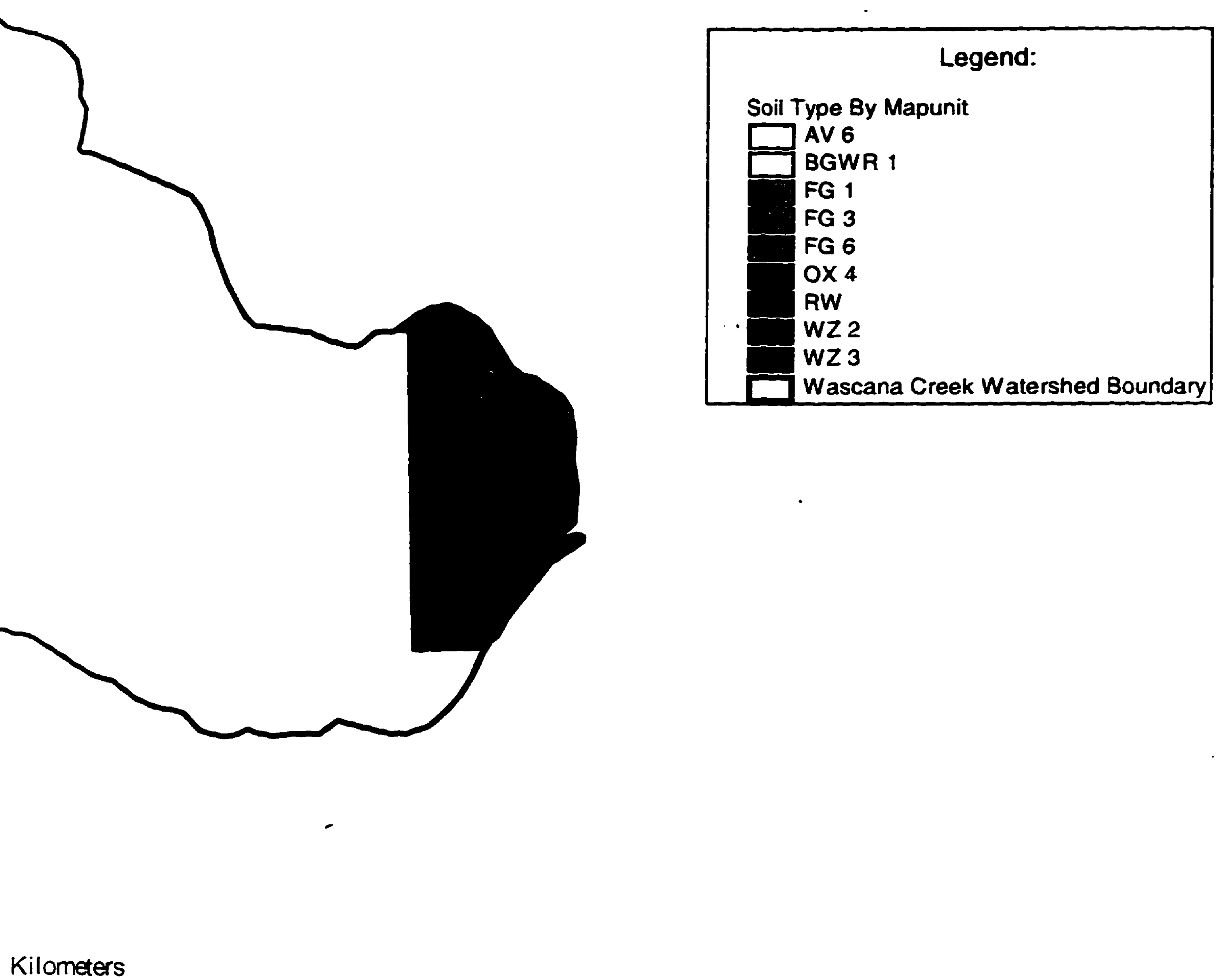
lometers

Produced By Jo Ashley 06/97

Soil Type For The Rural Municipa



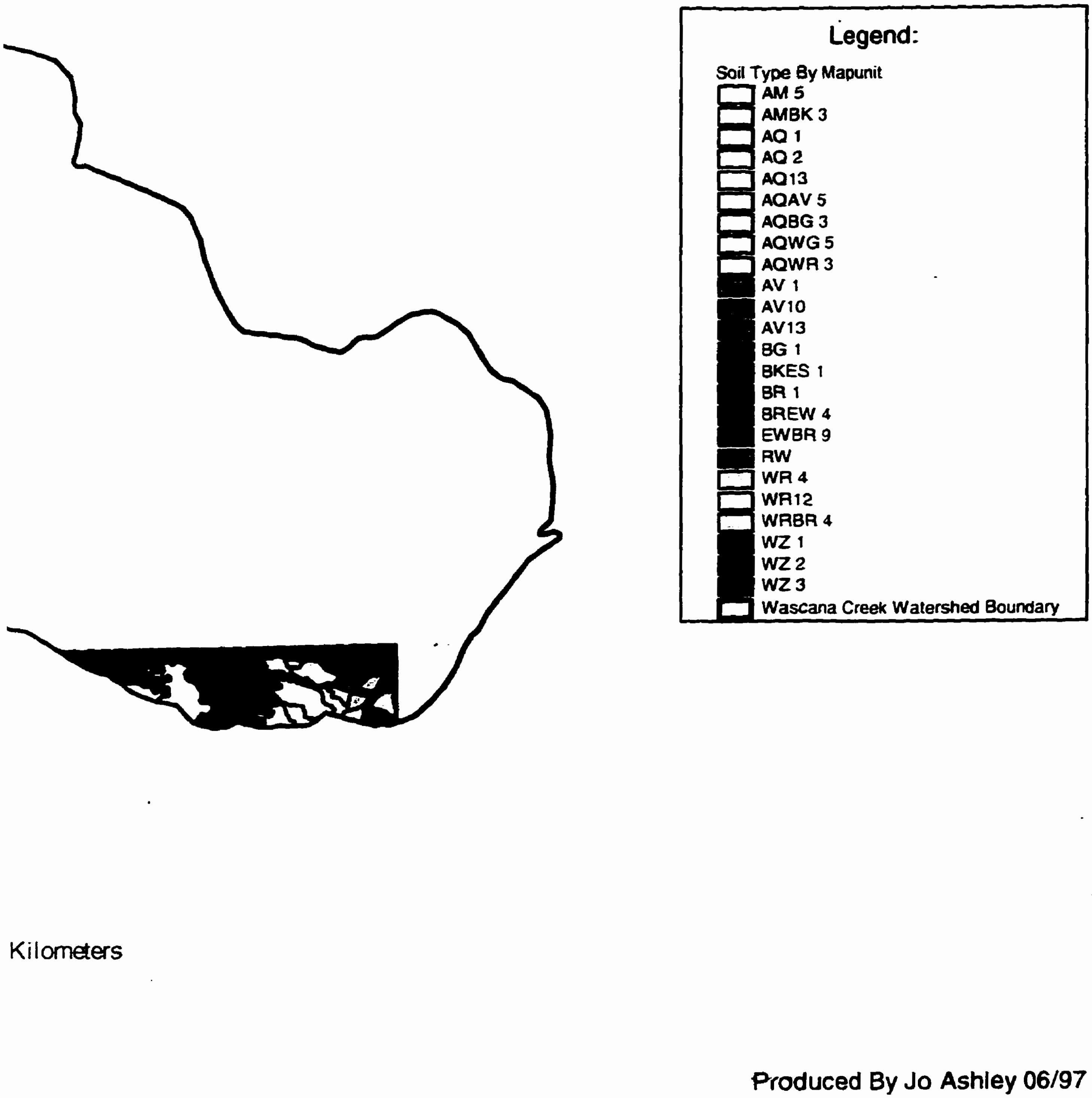
ınicipality Of Montmarte Region



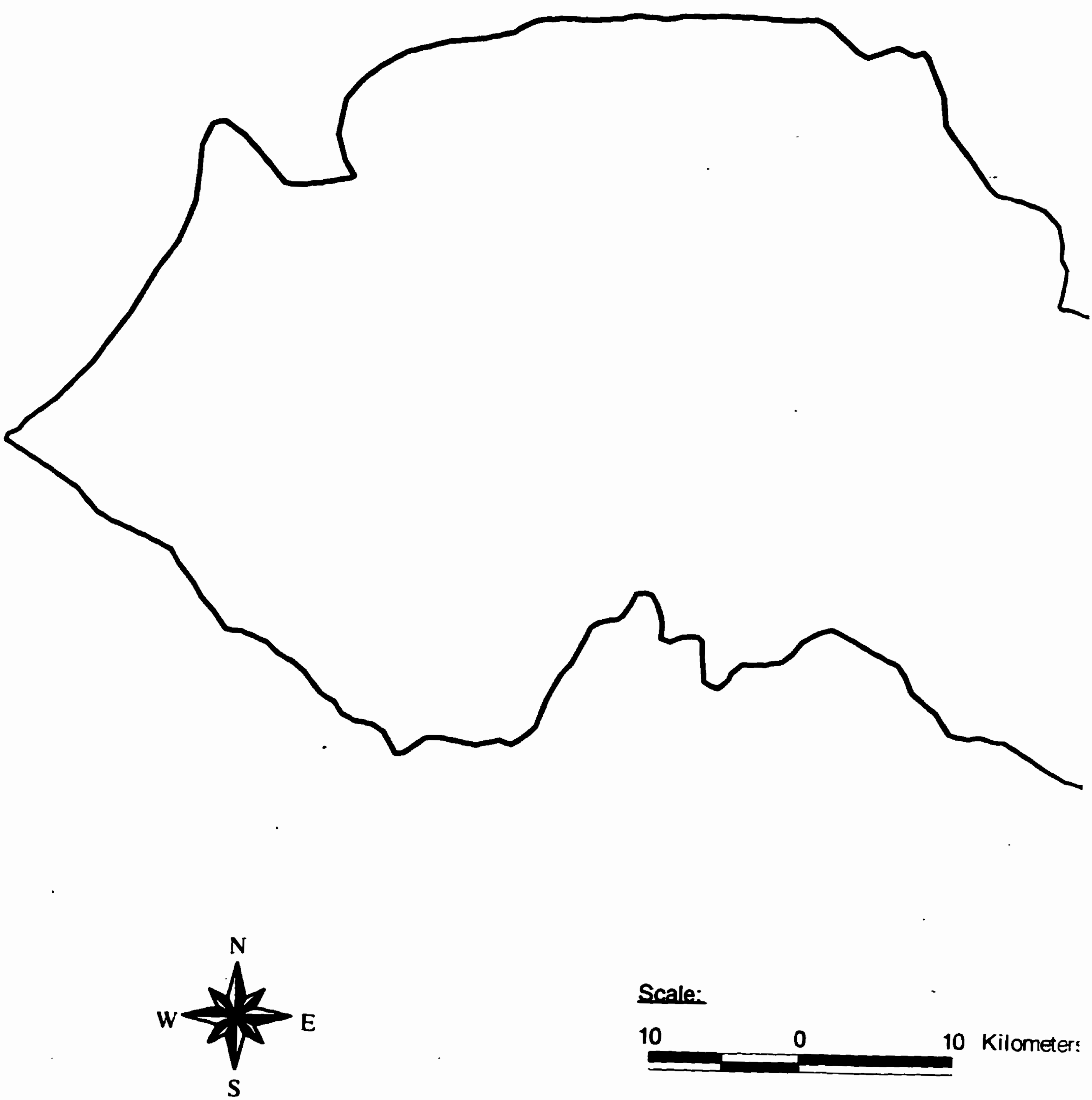
Produced By Jo Ashley 06/97

Soil Type For The Rural Munic

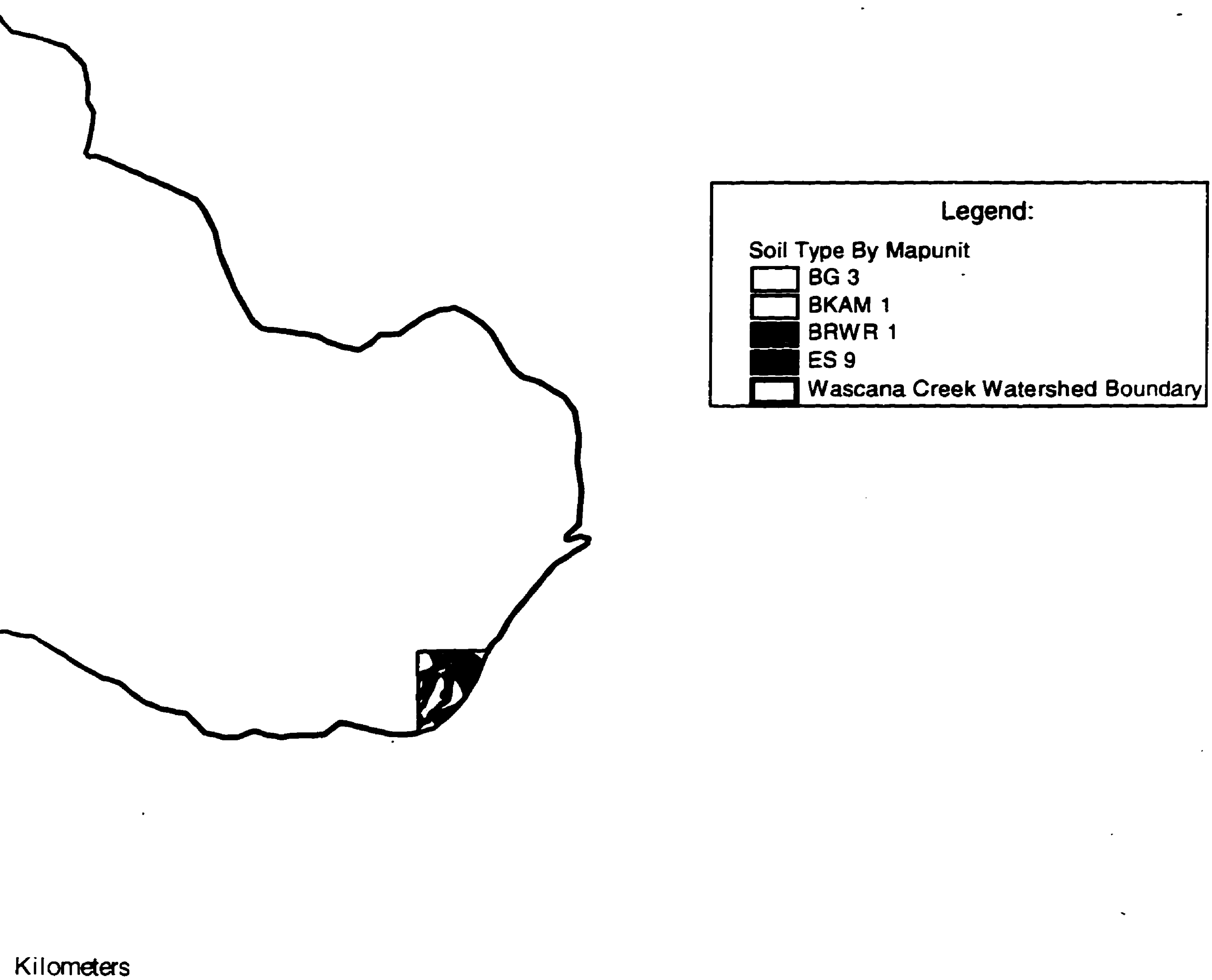
nicipality Of Wellington Region



Soil Type For The Rural Munic



lunicipality Of Fillmore Region



Produced By Jo Ashley 06/97

8.3.7 Appendix - MUNICIPAL OFFICIALS in UPPER WASCANA CREEK WATERSHED

The following are Rural Municipalities within the boundaries of the watershed:

Sherwood -	(159) Donna Rollie	525 - 5237
Bratt's Lake -	(129) Kevin Ritchie	732 - 2030
Edenwold -	(158) Donna Studwick	771 - 2522
Lajord -	(128) Rod Heise	781 - 2744
South Qu'Appelle -	(157) Sandra Drinnan	669 - 2257
Francis -	(127) Claude Karon	245 - 3256
Montmartre -	(126) Dale Brenner	424 - 2040
Wellington -	(97) Janis Mus	842 - 5606
Fillmore -	(96) Allen Dionne	722 - 3251

8.4.1 Appendix - EPHEMERAL GULLEY EROSION PREDICTIONS (using EGEM) (NORMAC A.E.S. Ltd., 1992)

Ephemeral Gulley Erosion Predictions Using EGEM.

				Sediment Yield[2] (t/ac) from Cropping Scenarios		
Slope	Slope[3] Length (ft.)	Channel Length (ft.)	Watershed Area (ft.)	Fallow	Crop	Zero-till
3%	500	250	5	2.6	1.9	0.3
7%	400	200	4	5.6	3.9	1.0
12%	300	150	3	9.6	6.3	1.6

[2] EGEM model input factors held constant were as follows: channel depth = 8", channel width = 12", soil texture = loam, and storm event = 2.28" in 24 hours (5-year, 24-hour)
[3] EGEM model results are imperial

figures from Avonlea Creek Sediment Loading Study
NORMAC, A.E.S. Ltd, Swift Current, Saskatchewan (1992)

8.4.2 Appendix - CANADA WHEAT BOARD ACREAGES (1960, 1970, 1996)

The Canadian Wheat Board				
Upper Wascana Creek Watershed Delivery Points - SE Saskatchewan				
1960 Crop Seeded Acreages				
Delivery Point	Wheat	Durum	Oats	Barley
Balgonie	13896	355	4547	1950
Bechard	19573	924	175	7092
Cedoux	20725	1180	4009	2484
Colfax	22362	1615	992	921
Corinne	19252	1117	581	1207
Davin	11343	609	3295	1642
Edenwold	18409	530	4808	2109
Estlin	27267	838	889	1732
Fillmore	32174	1792	4909	3715
Francis	28887	2727	3128	1794
Frankslake	10902	560	2554	1126
Grnd Coule	14950	1125	617	643
Gray	29620	1167	1007	405
Kendal	21360	2405	6251	1394
Kronau	22783	1282	2765	1100
Lajord	27090	730	2654	1476
Lewvan	23405	950	1215	367
McLean	6964		5313	1488
Montmartre	34740	1996	7468	3188
Odessa	21360	1320	2931	1177
Osage	22034	3805	4736	2685
Qu'Appelle	18943	331	5119	3086
Regina	27827	2149	4090	4666
Regina				
Riceton	24728	1092	456	420
Richardson	14286	925	925	1779
Rouleau	35812	4693	1481	2979
Rowatt	26595	1328	460	1740
Sedley	30702	1934	2712	2010
Tyvan	16658	1824	3737	2747
Vibank	17349	217	4203	859
Wilcox	36220	2157	2179	1218
Zehner	10945	465	2112	841

Rye	Summer Fallow	Forage Crops	Specified	Flax
25	13437	1622	35832	150
	13552	24	35340	1761
	16019	97	44514	526
	15176	140	41206	1688
	14543	52	36752	1631
215	11466	927	29497	195
128	19167	1016	46167	955
	20347	189	51262	2940
890	29757	377	73614	2839
45	23673	630	60884	1135
8	12016	431	27597	140
	15617	27	32979	3481
	22095	219	54513	1724
735	19740	965	52850	213
20	15662	904	44516	1336
25	18766	269	51010	770
	16533	56	42526	1292
	8966	1135	23866	
40	28630	2430	78492	251
155	20234	269	47446	250
708	22164	1307	57439	427
	22117	429	50025	273
403	26109	2020	67264	1930
	18836	5	45537	1396
	9994	162	28071	1200
	38782	446	84193	4797
	20922	606	51651	4619
	20819	510	58687	1020
407	16033	553	41959	1185
70	17353	432	40483	45
115	28880	407	71176	2962
20	11681	519	26583	120

Other Crops	Uncult Land	Total Acres
125	8023	44130
	219	37320
10	5773	50823
	1401	44295
80	1173	39636
95	6707	36494
70	16792	63984
	110	54312
130	11889	88472
	5001	67020
28	11003	38768
6	732	37198
1	240	56478
123	12647	65944
45	2880	48777
318	4489	56587
10	833	44661
57	13764	37687
298	23108	102149
295	8218	56209
20	7098	64984
371	21404	72073
281	6972	76447
	251	47184
150	1652	31073
305	2006	91301
	366	56636
335	4327	64369
135	6811	50090
55	10392	50975
	3978	78116
99	7272	34074

The Canadian Wheat Board				
Upper Wascana Creek Watershed Delivery Points - SE Saskatchewan				
1975-76 Crop Seeded Acreages from Permit Declarations Processed to 14 Nov 75				
Delivery Point	Hrs Wheat	Durum	Util Wheat	Oats
Balgonie	14523	175	180	5024
Bechard	6985	2152		50
Cedoux	19418	3036		2501
Colfax	13300	5089	150	279
Corinne	13464	6724		723
Davin	12351	960	188	2140
Edenwold	30102	2646	900	4494
Estlin	20761	5665	330	337
Fillmore	29754	4224	580	3060
Francis	23596	5438	501	1409
Frankslake	9161	385		981
Grnd Coule	13581	9139	940	445
Gray	15674	6908	145	453
Kendal	16830	738		3466
Kronau	19765	5594	100	1857
Lajord	17010	6710	165	1385
Lewvan	14326	7131	80	768
McLean	7249	160	610	3687
Montmartre	30034	1325	320	4662
Odessa	16755	1439	50	1430
Osage	18875	3031	100	1781
Qu'Appelle	20018	1135	130	2919
Regina	6747	2327	9	664
Regina	10266	3542	16	1011
Riceton	15059	5990	75	752
Richardson	8656	4636		922
Rouleau	34080	20260	1240	714
Rowatt	17507	8300	969	339
Sedley	18636	6755		1300
Tyvan	11551	2877	240	1431
Vibank	20852	205	100	3508
Wilcox	28028	12446	350	1287
Zehner	13122	1172		1913

2-row Barley	6-row Barley	Rye	Flax Seed	Lea Rape
666	4466	270	696	95
210	13		310	
365	2110		329	
349	1210		1443	
584	270		409	
75	2994	15	190	
1445	5678	425	3134	
563	928		3904	
913	6999	3154	3131	685
1197	3300	350	590	152
835	857		60	
265	2212		3358	
283	1216		2338	
502	774	310	187	185
1613	1994	60	345	
756	2901	80	1692	300
97	1601		1539	232
	2331	50	1020	125
525	4647	170	730	373
415	1522	83	436	479
764	3452	415	513	200
855	2530	105	240	98
686	1401	71	324	61
1044	2132	109	493	93
300	1253		743	
120	1460		565	
2860	1911		5666	
1020	2175	120	3846	
595	2744	70	1528	40
255	2833	490	15	130
90	2110		50	80
943	1604		1155	
673	1714	25	100	

Other Rape	Misc Crops	Summer Fallow	Sub-Total	Peren Forge
	100	17216	43411	3608
		8933	18653	70
		20906	48665	519
		13604	35424	20
	578	17583	40335	449
		14635	33548	2171
		35222	84046	3133
	160	20856	53504	982
	230	40157	90048	1989
		28045	64578	1668
		10260	22539	621
		19079	49019	295
	670	28821	56508	445
	65	15919	41976	3701
		22840	54168	3000
	36	17962	48997	2709
		20925	46699	257
		10830	26062	2620
		38055	80841	6234
	20	22228	44857	1473
		26858	55989	2789
	32	24741	52803	2879
	334	8939	21566	479
	509	13601	32813	729
	657	21742	46571	103
		9279	25638	769
80	100	48607	115518	688
25		24031	58332	1733
		23237	54905	3187
		17412	37234	2909
		22516	49511	2206
		37142	82955	1027
		16020	34739	1651

New Break	Uncult Nat Pasture	Total Farm
22	6200	53241
	1070	19793
	3471	52655
	1100	36544
10	2597	43391
55	4370	40144
20	12370	99569
	51	54537
30	7800	99867
20	5027	71293
	3194	26354
	520	49834
	101	57054
145	7579	53401
10	2815	59993
	2296	54002
	451	47407
	4477	33159
40	13993	101108
	4726	51056
202	4370	63350
11	9774	65467
2	1141	23189
4	1736	35281
	191	46865
	1205	27612
	1922	118128
	1071	61136
	3044	61136
	3577	43720
	7421	59138
	3042	87024
12	4159	40561

The Canadian Wheat Board				
Upper Wascana Creek Watershed Delivery Points - SE Saskatchewan :-				
1995-96 Crop Seeded Acreages from Processed Permit Declarations				
Delivery Point	CW Red Spring	CPS Red	CPS White	Extra Strong
Balgonie	9131	160	35	100
Bechard				
Cedoux				
Colfax				
Corinne				
Davin				
Edenwold	25869			1500
Estlin	11900			1414
Fillmore	31576	1230	430	1323
Francis	27972	1152	850	120
Frankslake				
Grnd Coule	9383		110	
Gray	4238	819	222	160
Kendal.				
Kronau	7901	300	160	743
Lajord	8614	240	154	160
Lewvan	6784			620
McLean				
Montmartre	21585		345	400
Odessa	15165	805	560	818
Osage	12618	794		
Qu'Appelle	7154			210
Regina				
Regina				
Riceton	9795		235	905
Richardson	5840	40	95	647
Rouleau	11210	1536	105	770
Rowatt	18542	640	1605	925
Sedley	7529			
Tyvan				
Vibank	20444	300	924	130
Wilcox	22741		440	2048
Zehner	7298		218	

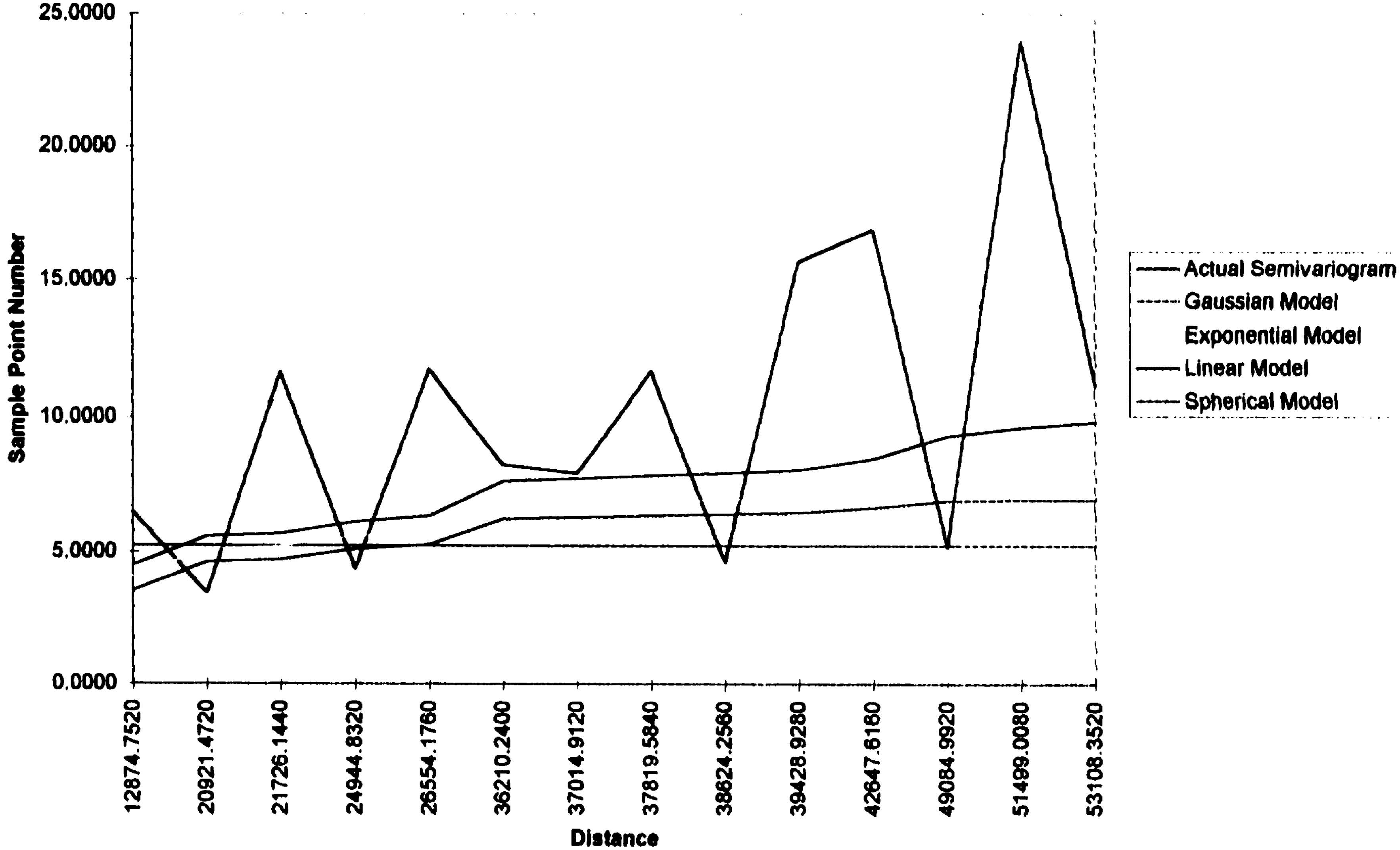
Red Winter	Durum Wheat	Non-reg Variety	2-row Barley	6-row Barley
	4852		4222	488
	9115	150	6127	1900
	15585		861	
	7304		3746	651
	14955		6960	866
	8448		1607	80
	4998		345	
	6149		1564	525
	21419		3798	390
	4466		912	
	2869		2303	1098
	3851		3565	80
170	2552		2232	450
	1288	20	2703	2143
185	11724		348	
	11069		3253	210
	30433	160	1197	265
	22135		1849	100
	6874		3054	70
	1608		3731	1281
	26790		832	400
55	5029		1551	565

Hulless 2-row	Hulless 6-row	Oats	Rye	Flax Seed
		958	390	2233
		588	100	2857
		229	90	3216
		2411	75	6588
		727	185	8300
		80	105	971
		256		815
		370	280	2665
		917	150	2940
		30		2665
		1663	60	3425
		703		1554
		1314	513	3700
		2053	217	2332
22		288		2780
		471	425	3460
		190		4567
		929		7428
		170	110	1403
		2275	15	3799
		1022	320	3472
	40	557	138	1149

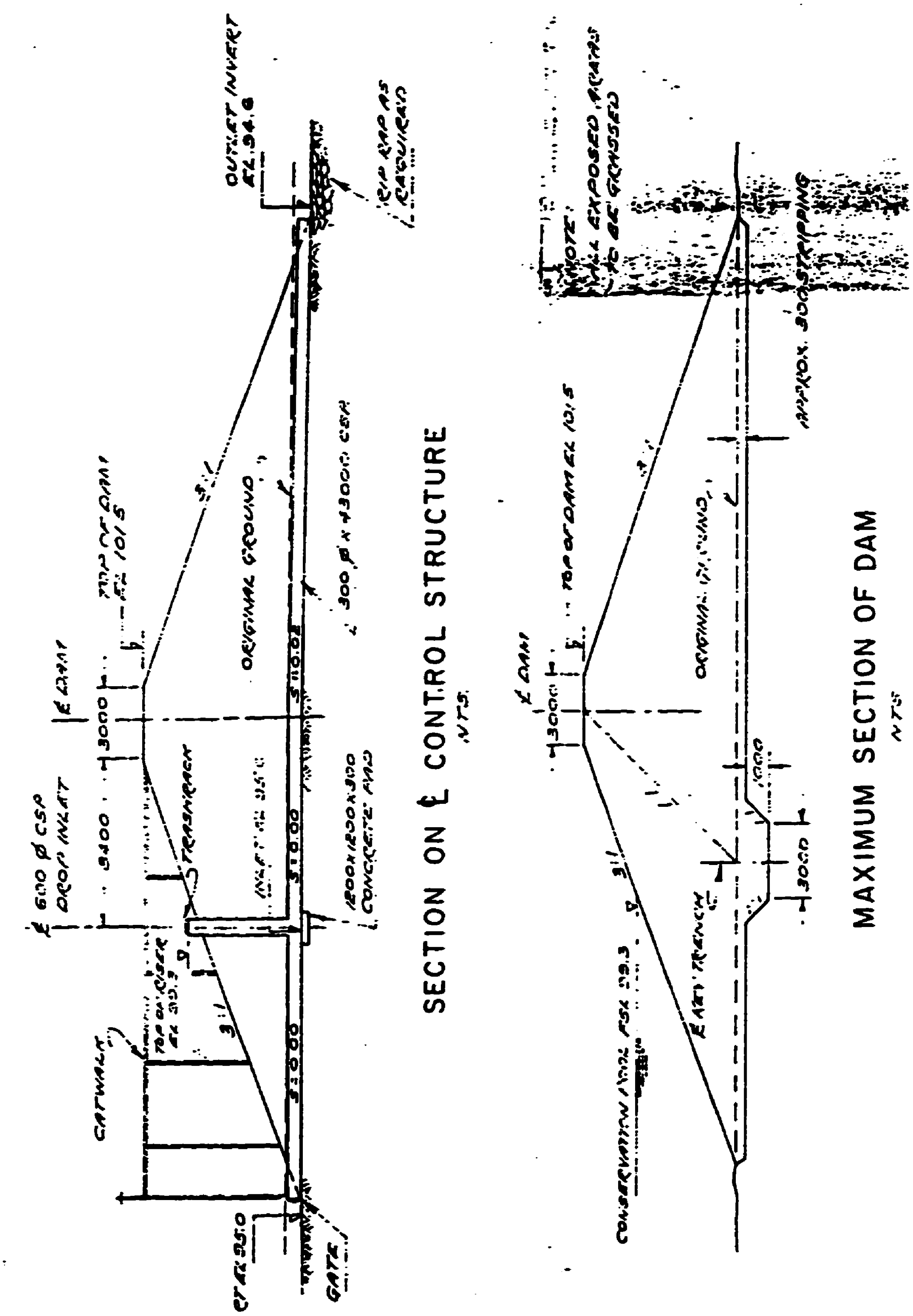
Canola/Rape	Misc.Crops	Summer Fallow	Peren Forage	NewBrk UncultP
6992	3175	13823	3530	5781
16624	5042	22422	2831	7362
3791	11481	6850		296
15679	13955	32793	6514	12593
18265	21032	21026	5185	7635
3506	12456	8861	1509	578
160	2687	2428		21
2825	8519	6105	2656	2359
9505	27592	6318	3976	3976
1534	3120	6639		692
15953	5261	22920	5721	12903
11227	3399	16399	3269	6867
7089	3110	15164	3451	3996
7867	1421	13434	3734	7684
1398	7176	6995		234
4914	13820	9163	2937	2159
3735	12511	16638	140	638
3424	22309	15164	2293	2341
4124	8365	2572	2912	1585
11673	4415	17515	5051	9164
2613	7183	32047	992	1901
3633	1490	9729	1317	4218

Total Farm
55870
102487
55713
136868
135230
47694
17149
43121
90149
27462
96406
68262
57153
52260
42085
58503
84095
99684
38768
82325
102801
36987

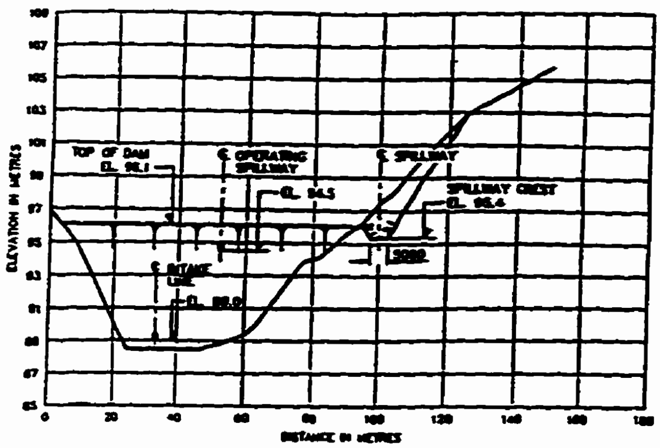
8.4.3 Appendix - **Kriging Model Comparisons**



8.5.1 Appendix - MULTI-PURPOSE HEADWATER STORAGE DAM DRAWINGS (PFRA, 1996)

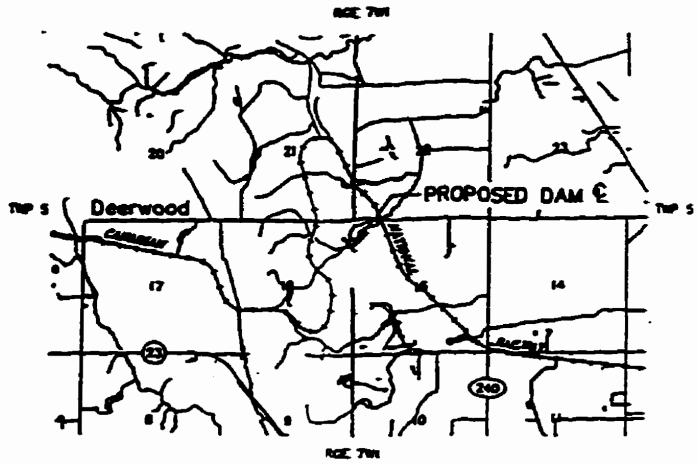


in the

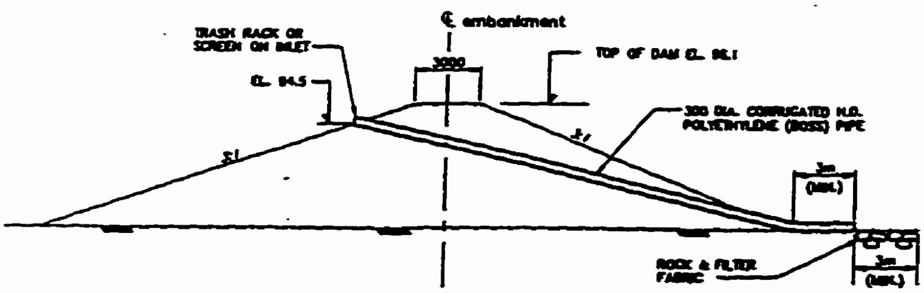


PROFILE ON ℄ DAM

N.T.S.

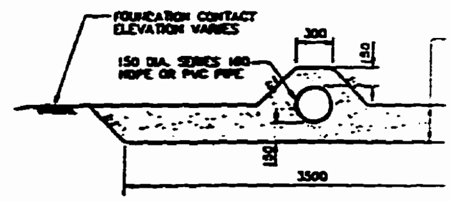


KEY PLAN



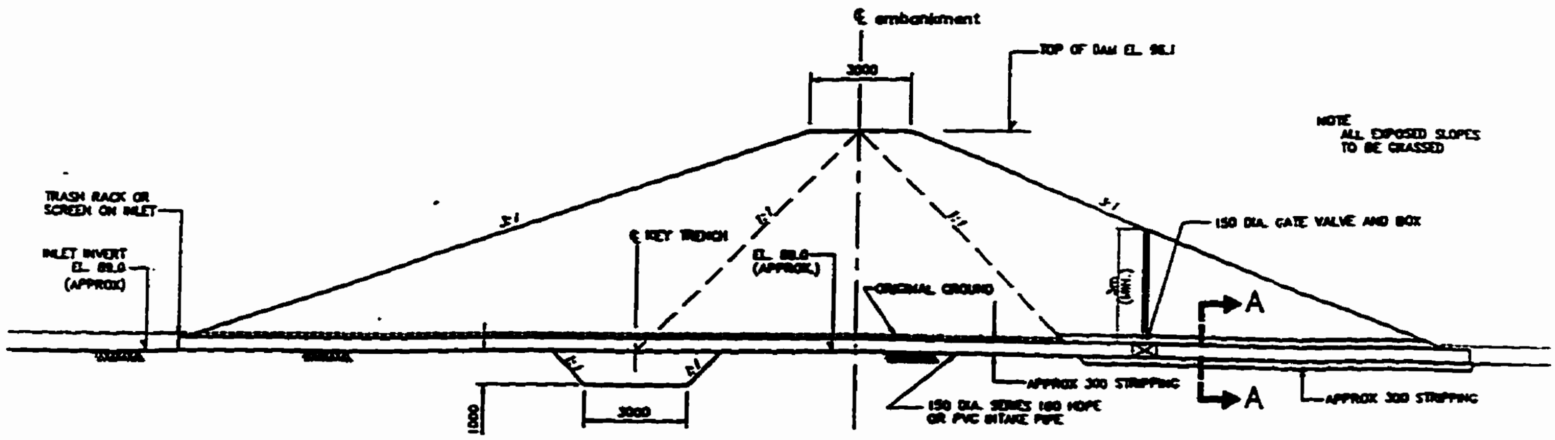
DAM CROSS SECTION AT ℄ OPERATING SPILLWAY

N.T.S.



SECTION A–A

N.T.S.



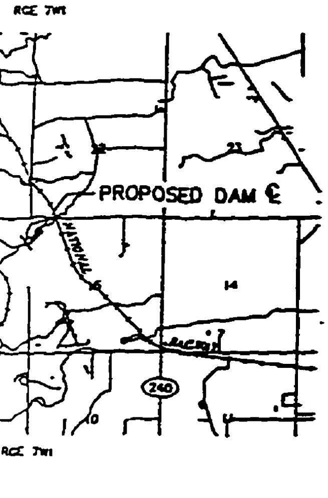
DAM CROSS SECTION AT ℄ INTAKE LINE

N.T.S.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED. ALL STATIONING AND ELEVATIONS ARE IN METRES

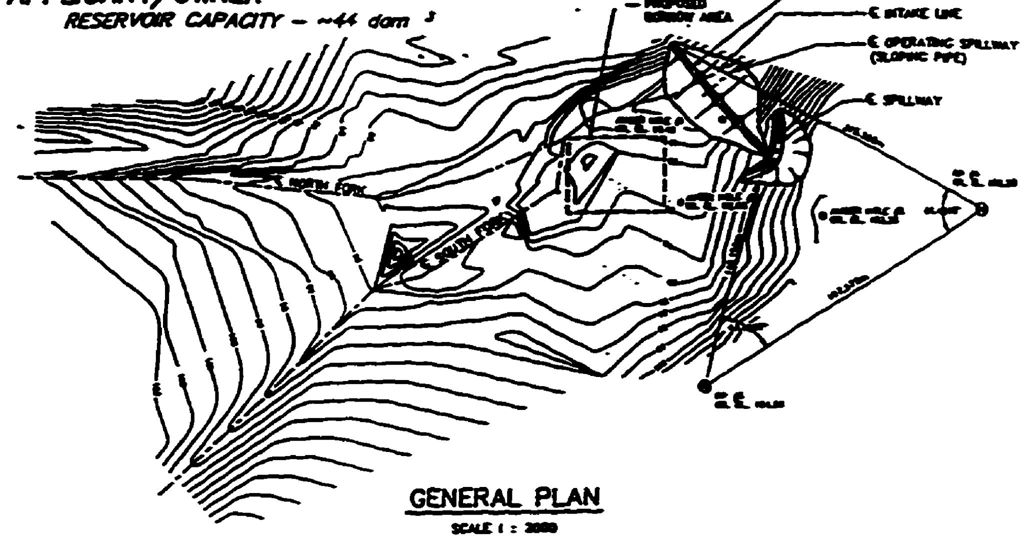
Mark	Date	Nature of Revision	Date	Eng.	Draft.

Designed: G. BRANDT — Approved:
Drawn: G. GASKIN — Position: Dist...
Checked: G. PEACE — Date: June



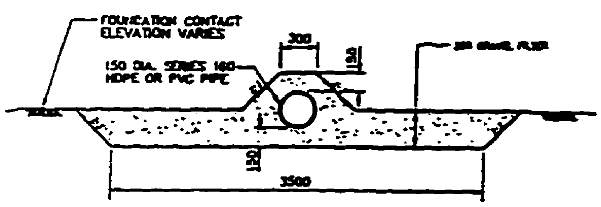
PLAN

APPLICANT/OWNER –
RESERVOIR CAPACITY – ~44 dam³



GENERAL PLAN

SCALE 1 : 2000



SECTION A–A

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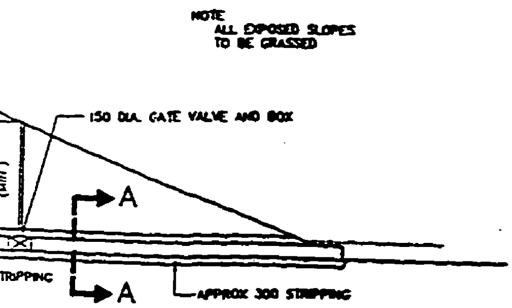

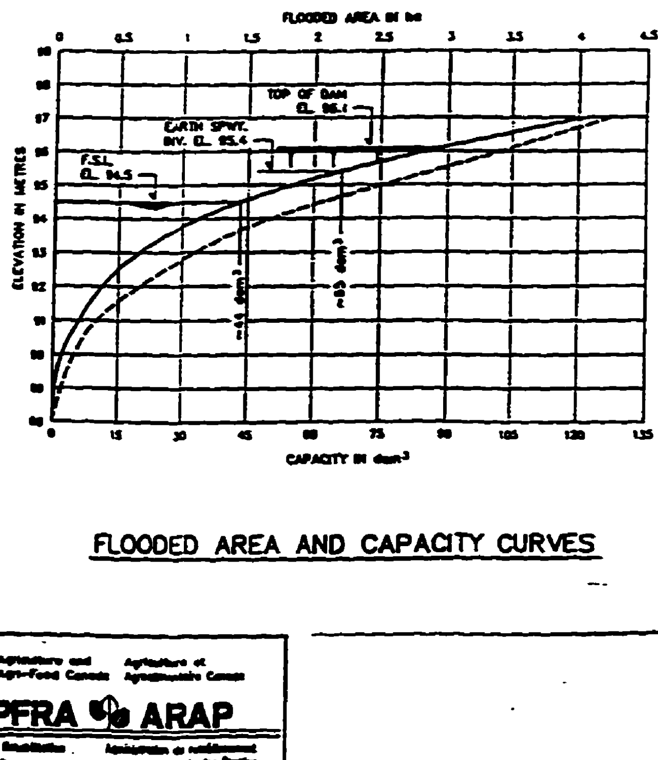

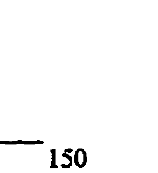

FLOODED AREA AND CAPACITY CURVES

Date	Eng.	Draft.	Designed: G. BRANDT	Approved: Glen Brandt	Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada
			Drawn: G. GASKIN	Position Title: District Engineer	PFRA ARAP
			Checked: C. PEACE	Date: June 20, 1996	Prairie Farm Rehabilitation Administration / Administration du rétablissement agricole des Prairies

8.5.2 Appendix - WATER CONTROL ASSISTANCE PROGRAM PROFILE (SaskWater, 1987)

Effective Date:
Immediately

WATER CONTROL ASSISTANCE

***** PROGRAM PROFILE *****

A. PURPOSE

To alleviate flooding and drainage problems associated with agricultural lands and to advance soil and water conservation and to stabilize levels of existing lakes through locally sponsored and co-ordinated programs.

B. REGULATIONS OR CONDITIONS

1. Engineering services are available to:

   (a) Groups of farmers who may be organized as conservation and development areas.
   (b) Organized conservation and development areas and watershed associations.
   (c) Local governments and similar incorporated bodies with respect to lake stabilization projects.

2. Financial assistance may be provided to these groups for water control projects in accordance with section C.2.

C. ASSISTANCE

1. Services provided by Sask Water:

   (a) Investigational services and studies of water control projects.
   (b) Technical services toward organizing and administering conservation and development areas and watershed associations.
   (c) Engineering and technical services for the projects.
   (d) Engineering and technical services for the operation and maintenance of water control projects.

2. Financial assistance for project construction:

   (a) Cost sharing between conservation and development area authorities or watershed association boards and Sask Water, and local governments and Sask Water, with respect to lake stabilization projects:

Type of Project	Sask Water's Share	Local Share
Flood Control and Drainage	Up to 50%	Remainder
Backflood Irrigation	Up to 50%	Remainder
Multi-Purpose	To be negotiated	
Lake Stabilization	Up to 50%	Remainder

(b) See Appendices A and C for further details.

3. Financial assistance for maintenance:

Sask Water will pay:

(a) Up to 50% of the cost of maintenance undertaken by local authorities.
(b) Up to 50% of the cost of maintenance undertaken by local governments with respect to lake stabilization projects.
(c) See Appendices B and C for further details.

4. Financial assistance for developing special maintenance equipment:

Where a conservation and development area authority is prepared to sponsor the development of special maintenance equipment, Sask Water may negotiate special financial arrangements for the construction of such equipment, provided the plans and concepts are considered feasible by Sask Water.

5. Financial assistance for channel clearing projects:

Under the authority of The Conservation and Development Act and The Watershed Associations' Act, conservation and development area authorities and watershed association boards may undertake works which qualify for assistance under the channel clearing assistance program for rural municipalities. All terms and conditions of this latter program shall apply. Agreements entered into between conservation and development area authorities and owners and occupants should be filed with the secretary-treasurer and a copy filed with Sask Water.

D. GENERAL

1. Where, in the opinion of Sask Water, works already constructed are not being maintained adequately, Sask Water may refuse to provide cost sharing and services for the construction of additional works.

2. Where, in the opinion of Sask Water, project costs are considered to be too high in relation to the benefits, engineering services may be withdrawn and financial assistance unavailable.

3. All costs in connection with local supervision by members of the area authority or directors of the watershed association and local governments shall be borne by the local authority and are not eligible for cost sharing. When a local authority or local government hires a board member as an equipment operator or labourer, prior Sask Water approval will be required to claim it as a cost shared item.

4. All equipment rental rates and labour rates require prior Sask Water approval before being claimed as a cost shared item.

5. Engineering and technical services, and financial assistance for project construction or maintenance, will be subject to the availability of funds and staff. Sask Water reserves the right to establish priorities for providing such services and assistance.

6. The operation and maintenance phase of a project shall begin when the construction of the works or portions thereof described in the construction plans has been substantially completed.

7. Under this program, backflood irrigation is considered to be works constructed to supply water to lands that are not normally subject to periodic flooding.

8. Farmstead dyking, relocation or purchase may be considered as a shareable cost with conservation and development area authorities and watershed association boards, if such farmsteads are considered to be affected or are likely to be affected by constructed works or works expected to be constructed by conservation and development area authorities or watershed association boards.

9. As a condition for assistance, the conservation and development area authority, watershed association board and/or the local government must hold Sask Water harmless from all damages or claims which may occur from works undertaken pursuant to this program.

8.5.3 Appendix - EROSION CONTROL ASSISTANCE PROGRAM PROFILE (SaskWater, 1993)

Effective Date:
Immediately

EROSION CONTROL ASSISTANCE

*** PROGRAM PROFILE ***

A. PURPOSE

Gully erosion and the loss of productive soil due to sheet and rill erosion is of increasing concern to farmers and municipalities. Silt from such erosion creates problems in downstream waterways, storages and structures. Gullies destroy and sever productive land and often threaten municipal roads. Measures to correct these problems must be co-ordinated among individual landowners, groups of landowners, municipal and watershed authorities.

The purpose of the program is to encourage erosion control and gully stabilization by individuals and organized groups of landowners through technical and financial assistance.

B. REGULATIONS AND CONDITIONS

1. Assistance will be provided to individuals and organized groups of landowners. A group of landowners must be organized on a sub-watershed or other acceptable geographic basis.

2. Sask Water regional staff will co-ordinate the program with assistance provided from Saskatchewan Agriculture and Food's agricultural representative, provincial soil conservation specialist, regional soil and crop specialist and Sask Water's engineering staff.

3. All proposed projects must be submitted to the applicable rural municipality for sanctions which are applicable.

4. New projects will be administered by a conservation and development area authority or a watershed association board where such organization exists.

5. Approvals for project proposals, plans and financial assistance must be obtained from Sask Water before the work is undertaken.

6. The individual or group of landowners involved must sign an agreement to carry out the program of control measures as recommended and approved by Sask Water.

7. Machine and labour rates and material costs used for expenditure claims must first be approved by Sask Water.

   Guidelines for machine rates will be the median rates as published by Saskatchewan Agriculture and Food's Economics Branch in the booklet, "Farm Machinery Custom and Rental Rates Guide."

   Rates applied to applicant-owned equipment will not exceed the "Basic Custom Rate" and, for contract work, the "Custom Rate."

   Rates for equipment not included in the publication may be obtained by contacting Sask Water.

8. In the case where applications are filed by renters of the property, the renter shall file a copy of an agreement with the owner, approving the work and disbursement of the grant. The owner and renter shall both sign the project approval and agreement.

9. The applicant must agree to carry out work in a satisfactory manner and in accordance with the program outline. Channels must be constructed to provide sufficient depth and width to contain expected flows and to acceptable uniformity.

C. <u>ASSISTANCE</u>

1. Assistance will be co-ordinated by Sask Water regional staff.

   (a) Organizational and Technical

   Technical assistance is available through Saskatchewan Agriculture and Food's provincial soil conservation specialist and regional soil and crop specialist.

   Organizational and engineering services are provided by Sask Water.

   (b) Financial

   Financial assistance for eligible construction and maintenance is provided by Sask Water as follows:

   (i) Up to 50% of all eligible construction costs;
   (ii) Up to 50% of cost of maintenance.

2. Assistance provided will be for:

   (a) Filling, shaping and seeding gullies to grass;
   (b) Channel improvement and diversion channel construction, including the cost of culvert installations, grade control structures and grassing;
   (c) Maintenance of water courses which have been improved under this program and the former erosion control and soil improvement program.

D. GENERAL

1. The annual assistance resulting from this program will be subject to appropriation of funds and staff.

2. As a condition for assistance, the landowner, and where applicable the renter, shall hold Sask Water and conservation and development area authorities and watershed association boards harmless from all damages or claims which may result from works undertaken pursuant to this program.

3. Where a major erosion project is not within the boundaries of an existing conservation and development area, Sask Water may, as a condition of providing assistance, recommend that the group of landowners organize as such.

4. Specialized equipment that may be required for construction or maintenance may be available under the provisions of Sask Water's specialized equipment rental program.

5. Approvals may be required from other government departments and agencies and municipalities for some of the works constructed pursuant to this program. Applicants will be advised when such approvals may be required.

6. Maintenance may include snow removal, where such removal is necessary for the operation of the works and does not create problems on downstream lands. Applications must be approved by Sask Water prior to the work being undertaken.

7. Expenditures and claims received by Sask Water after December 31st, and claims in amounts more than estimated and approved in the approval and agreement form will require further consideration and approval by Sask Water.

8.6.1 Appendix - UPPER WASCANA CREEK WATERSHED EROSION RISK MAP DATA TABLES (1960, 1975, 1996)

Table Listing of Calculated Values for 'C', 'K', 'A', and The Sum of 'A' For The Entire Watershed

AREA	PERIMETER	1/4 Section #	K-soil value	"C" - 1960	"C" - 1975	"C" - 1996	"A" - 1960	"A" - 1975	"A" - 1996	SUM_A60
361177.750	2488.080	2	0.022	0.39	0.41	0.36	3.6	3.8	3.3	18,276 tonnes
357080.083	2487.311	3	0.022	0.39	0.41	0.36	5.6	5.9	5.2	
335565.375	2448.885	4	0.022	0.39	0.41	0.36	5.6	5.9	5.2	SUM_A75
341144.531	2457.979	5	0.022	0.39	0.41	0.36	5.6	5.9	5.2	21,098 tonnes
327430.625	2418.770	6	0.022	0.39	0.41	0.36	5.6	5.9	5.2	
323408.083	2415.456	7	0.022	0.39	0.41	0.38	7.6	8.0	7.1	SUM_A96
290818.688	2276.720	8	0.022	0.40	0.42	0.38	2.0	2.1	1.8	13,972 tonnes
288808.000	2325.619	9	0.040	0.39	0.42	0.36	6.5	7.0	6.0	
283234.438	2304.458	10	0.022	0.39	0.41	0.37	10.7	11.3	10.2	
258888.484	2251.882	11	0.022	0.40	0.42	0.36	2.0	2.1	1.8	
212316.453	2078.482	12	0.022	0.39	0.42	0.36	3.6	3.8	3.3	
194882.813	2138.378	13	0.022	0.39	0.42	0.35	5.6	6.0	5.0	
212203.359	2152.883	14	0.022	0.39	0.41	0.37	2.0	2.1	1.9	
219058.156	2155.210	15	0.022	0.39	0.42	0.36	10.7	11.5	9.9	
168488.047	2075.582	16	0.022	0.40	0.42	0.36	3.7	3.8	3.3	
184677.888	2087.103	17	0.022	0.39	0.42	0.35	3.6	3.8	3.2	
188875.625	2101.546	18	0.022	0.39	0.41	0.37	10.7	11.3	10.2	
101785.083	1864.852	19	0.022	0.40	0.42	0.35	11.0	11.5	9.6	
21368.688	787.284	20	0.022	0.39	0.42	0.36	3.6	3.8	3.3	
89874.656	1821.656	21	0.024	0.40	0.42	0.35	4.0	4.2	3.5	
86705.078	1825.491	22	0.024	0.40	0.42	0.35	2.2	2.3	1.9	
53251.422	1785.350	23	0.022	0.40	0.42	0.35	3.7	3.8	3.2	
61357.422	1782.491	24	0.024	0.40	0.42	0.35	2.2	2.3	1.9	
50282.980	1735.927	25	0.008	0.40	0.42	0.35	1.5	1.6	1.3	
8818.922	733.827	26	0.008	0.41	0.42	0.36	1.5	1.6	1.3	
589768.313	3065.615	27	0.008	0.41	0.42	0.34	2.4	2.5	2.0	
647371.125	3218.375	28	0.008	0.40	0.42	0.34	0.8	0.9	0.7	
647320.813	3218.250	29	0.009	0.40	0.42	0.35	1.5	1.6	1.3	
647371.125	3218.375	30	0.008	0.40	0.42	0.34	2.4	2.5	2.0	
647371.125	3218.375	31	0.024	0.40	0.42	0.35	2.2	2.3	1.9	
647371.125	3218.375	32	0.024	0.40	0.42	0.35	4.0	4.2	3.5	
647320.813	3218.250	33	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647371.125	3218.375	34	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647371.125	3218.375	35	0.022	0.40	0.42	0.35	3.7	3.8	3.2	
647371.125	3218.375	36	0.022	0.40	0.42	0.36	3.7	3.8	3.3	
647320.813	3218.250	37	0.022	0.40	0.42	0.36	3.7	3.8	3.3	
647371.125	3218.375	38	0.024	0.39	0.41	0.35	8.3	8.8	7.5	
647371.125	3218.375	39	0.022	0.39	0.42	0.35	3.6	3.8	3.2	
647371.125	3218.375	40	0.022	0.39	0.42	0.35	7.6	8.2	6.9	
647320.813	3218.250	41	0.022	0.39	0.41	0.36	10.7	11.3	9.9	
647371.125	3218.375	42	0.022	0.39	0.41	0.36	5.6	5.9	5.2	
647371.125	3218.375	43	0.022	0.39	0.41	0.36	7.6	8.0	7.1	
647371.125	3218.375	44	0.022	0.39	0.41	0.36	2.0	2.1	1.8	
647320.813	3218.250	45	0.022	0.39	0.41	0.36	10.7	11.3	9.9	
647371.125	3218.375	46	0.022	0.39	0.41	0.36	10.7	11.3	9.9	
647371.125	3218.375	47	0.022	0.39	0.42	0.36	3.6	3.8	3.3	
647371.125	3218.375	48	0.022	0.39	0.42	0.37	13.9	14.9	13.2	
647320.813	3218.250	49	0.022	0.39	0.42	0.37	10.7	11.5	10.2	
647371.125	3218.375	50	0.022	0.39	0.42	0.36	5.6	6.0	5.2	

GISTABLE

558099.938	2984.208	51	0.022	0.39	0.42	0.36	5.6	6.0	5.2	
322538.844	2481.378	52	0.009	0.41	0.43	0.34	2.4	2.5	2.0	
90475.125	1456.829	53	0.022	0.00	0.00	0.00	0.0	0.0	0.0	
19304.297	699.064	54	0.009	0.41	0.43	0.34	2.4	2.5	2.0	
592862.125	3080.715	55	0.009	0.41	0.43	0.33	4.6	4.8	3.7	
647371.125	3218.375	56	0.009	0.41	0.43	0.34	1.5	1.6	1.3	
647371.125	3218.375	57	0.009	0.41	0.43	0.35	2.4	2.5	2.1	
647371.125	3218.375	58	0.028	0.41	0.42	0.34	7.5	7.7	6.2	
647320.813	3218.250	59	0.009	0.40	0.42	0.34	2.4	2.5	2.0	
647371.125	3218.375	60	0.028	0.40	0.42	0.34	10.0	10.5	8.5	
647371.125	3218.375	61	0.024	0.40	0.42	0.34	4.0	4.2	3.4	
647371.125	3218.375	62	0.024	0.40	0.42	0.34	4.0	4.2	3.4	
647320.813	3218.250	63	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647371.125	3218.375	64	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647371.125	3218.375	65	0.040	0.40	0.42	0.35	10.5	11.0	9.1	
647371.125	3218.375	66	0.009	0.40	0.42	0.35	0.8	0.9	0.7	
647320.813	3218.250	67	0.024	0.40	0.42	0.36	4.0	4.2	3.6	
647371.125	3218.375	68	0.024	0.40	0.42	0.36	8.6	9.0	7.7	
647371.125	3218.375	69	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647371.125	3218.375	70	0.022	0.39	0.42	0.35	2.0	2.1	1.8	
647320.813	3218.250	71	0.022	0.39	0.42	0.35	10.7	11.5	9.6	
647371.125	3218.375	72	0.022	0.39	0.42	0.35	10.7	11.5	9.6	
647371.125	3218.375	73	0.022	0.39	0.41	0.36	10.7	11.3	9.9	
647371.125	3218.375	74	0.022	0.39	0.41	0.36	10.7	11.3	9.9	
647320.813	3218.250	75	0.022	0.39	0.42	0.35	10.7	11.5	9.6	
647371.125	3218.375	76	0.022	0.39	0.42	0.35	3.6	3.8	3.2	
647371.125	3218.375	77	0.022	0.39	0.42	0.36	5.6	6.0	5.2	
647371.125	3218.375	78	0.022	0.39	0.42	0.36	7.6	8.2	7.1	
647320.813	3218.250	79	0.022	0.39	0.42	0.36	7.6	8.2	7.1	
647371.125	3218.375	80	0.022	0.39	0.42	0.36	5.6	6.0	5.2	
647371.125	3218.375	81	0.022	0.39	0.42	0.36	5.6	6.0	5.2	
591261.563	3022.588	82	0.020	0.39	0.42	0.36	5.1	5.5	4.7	
436341.813	2716.580	83	0.009	0.41	0.43	0.34	4.6	4.8	3.8	
133300.250	1768.843	84	0.020	0.39	0.42	0.36	5.1	5.5	4.7	
283772.500	2353.248	85	0.015	0.41	0.43	0.33	4.0	4.2	3.2	
191716.797	2090.093	86	0.015	0.41	0.43	0.33	2.6	2.7	2.1	
125320.344	1924.968	87	0.004	0.41	0.43	0.33	1.1	1.1	0.9	
47275.813	1143.966	88	0.022	0.38	0.43	0.36	1.9	2.2	1.8	
54298.594	1732.794	89	0.004	0.41	0.44	0.32	1.1	1.2	0.8	
9891.750	554.235	90	0.022	0.38	0.43	0.36	3.5	3.9	3.3	
581873.063	3037.416	91	0.004	0.42	0.44	0.32	1.1	1.2	0.8	
650589.875	3226.406	92	0.004	0.41	0.44	0.32	0.7	0.7	0.5	
647723.125	3219.250	93	0.004	0.41	0.44	0.32	2.0	2.2	1.6	
647773.438	3219.375	94	0.004	0.41	0.43	0.32	1.5	1.5	1.1	
647773.438	3219.375	95	0.015	0.41	0.43	0.33	4.0	4.2	3.2	
647773.438	3219.375	96	0.028	0.41	0.43	0.33	14.3	15.0	11.5	
647723.125	3219.250	97	0.028	0.41	0.43	0.34	14.3	15.0	11.9	
647773.438	3219.375	98	0.009	0.41	0.43	0.33	1.5	1.6	1.2	
647773.438	3219.375	99	0.009	0.41	0.43	0.34	1.5	1.6	1.3	
647773.438	3219.375	100	0.009	0.41	0.43	0.34	3.3	3.4	2.7	
647723.125	3219.250	101	0.009	0.40	0.42	0.34	1.5	1.6	1.3	
647773.438	3219.375	102	0.028	0.40	0.42	0.34	10.0	10.5	8.5	

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647773.438	3219.375	103	0.009	0.40	0.42	0.34	1.5	1.6	1.3	
647773.438	3219.375	104	0.024	0.40	0.43	0.36	2.2	2.4	1.9	
647723.125	3219.250	105	0.022	0.40	0.42	0.34	5.8	6.0	4.9	
647773.438	3219.375	106	0.022	0.40	0.42	0.35	7.8	8.2	6.9	
647773.438	3219.375	107	0.022	0.40	0.42	0.35	11.0	11.5	9.6	
647773.438	3219.375	108	0.009	0.40	0.42	0.35	2.4	2.5	2.1	
647723.125	3219.250	109	0.024	0.40	0.42	0.35	8.6	9.0	7.5	
647773.438	3219.375	110	0.024	0.40	0.42	0.35	6.3	6.6	5.5	
647773.438	3219.375	111	0.024	0.40	0.42	0.36	6.3	6.6	5.6	
647773.438	3219.375	112	0.024	0.40	0.42	0.35	8.6	9.0	7.5	
647723.125	3219.250	113	0.024	0.39	0.42	0.35	2.2	2.3	1.9	
647773.438	3219.375	114	0.024	0.39	0.42	0.35	6.1	6.6	5.5	
647773.438	3219.375	115	0.020	0.39	0.42	0.35	5.1	5.5	4.6	
647773.438	3219.375	116	0.020	0.39	0.42	0.35	9.7	10.5	8.7	
647723.125	3219.250	117	0.022	0.39	0.42	0.35	17.4	18.8	15.6	
647773.438	3219.375	118	0.022	0.39	0.42	0.35	7.6	8.2	6.9	
647773.438	3219.375	119	0.022	0.39	0.42	0.35	2.0	2.1	1.8	
647773.438	3219.375	120	0.022	0.39	0.42	0.35	5.6	6.0	5.0	
647723.125	3219.250	121	0.022	0.39	0.42	0.35	7.6	8.2	6.9	
647773.438	3219.375	122	0.022	0.39	0.42	0.36	5.6	6.0	5.2	
647773.438	3219.375	123	0.020	0.39	0.42	0.36	7.0	7.5	6.4	
647773.438	3219.375	124	0.020	0.39	0.42	0.36	7.0	7.5	6.4	
617888.000	3076.472	125	0.020	0.39	0.43	0.35	5.1	5.6	4.6	
581957.625	3035.223	126	0.022	0.38	0.43	0.36	3.5	3.9	3.3	
626051.125	3107.922	127	0.040	0.38	0.43	0.36	6.3	7.2	6.0	
290196.063	2223.587	128	0.022	0.39	0.44	0.37	2.0	2.2	1.9	
422334.750	2926.167	129	0.022	0.38	0.43	0.36	1.9	2.2	1.8	
379007.813	2582.780	130	0.004	0.42	0.44	0.32	1.5	1.6	1.1	
357398.813	2546.221	131	0.020	0.38	0.43	0.36	6.8	7.7	6.4	
322908.938	2568.774	132	0.022	0.39	0.43	0.36	3.6	3.9	3.3	
196328.500	2128.657	133	0.004	0.42	0.44	0.32	0.4	0.4	0.3	
22011.281	734.001	134	0.004	0.42	0.45	0.32	0.7	0.7	0.5	
565178.938	2990.592	135	0.004	0.43	0.45	0.32	1.5	1.6	1.1	
647320.813	3218.250	136	0.004	0.42	0.45	0.32	0.7	0.7	0.5	
647371.125	3218.375	137	0.004	0.42	0.44	0.32	1.5	1.6	1.1	
647371.125	3218.375	138	0.004	0.42	0.44	0.32	2.1	2.2	1.6	
647371.125	3218.375	139	0.004	0.41	0.44	0.32	2.0	2.2	1.6	
647320.813	3218.250	140	0.004	0.41	0.44	0.32	2.7	2.8	2.1	
647371.125	3218.375	141	0.004	0.41	0.43	0.32	1.5	1.5	1.1	
647371.125	3218.375	142	0.040	0.41	0.43	0.32	6.8	7.2	5.3	
647371.125	3218.375	143	0.015	0.41	0.43	0.33	7.7	8.0	6.2	
647320.813	3218.250	144	0.026	0.41	0.43	0.33	14.3	15.0	11.5	
647371.125	3218.375	145	0.009	0.41	0.43	0.34	3.3	3.4	2.7	
647371.125	3218.375	146	0.009	0.41	0.44	0.34	3.3	3.5	2.7	
647371.125	3218.375	147	0.009	0.41	0.43	0.34	0.9	0.9	0.7	
647320.813	3218.250	148	0.009	0.41	0.43	0.33	3.3	3.4	2.6	
647371.125	3218.375	149	0.009	0.40	0.42	0.33	2.4	2.5	1.9	
647371.125	3218.375	150	0.026	0.40	0.42	0.33	4.7	4.9	3.8	
647371.125	3218.375	151	0.009	0.40	0.42	0.34	0.8	0.9	0.7	
647320.813	3218.250	152	0.009	0.40	0.42	0.34	0.8	0.9	0.7	
647371.125	3218.375	153	0.022	0.40	0.43	0.35	5.8	6.2	5.0	
647371.125	3218.375	154	0.022	0.40	0.42	0.34	7.8	8.2	6.7	

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647371.125	3218.375	155	0.024	0.40	0.42	0.34	8.6	9.0	7.3	
647320.813	3218.250	156	0.024	0.40	0.42	0.35	12.0	12.6	10.5	
647371.125	3218.375	157	0.024	0.40	0.42	0.35	8.6	9.0	7.5	
647371.125	3218.375	158	0.024	0.40	0.42	0.35	12.0	12.6	10.5	
647371.125	3218.375	159	0.024	0.40	0.42	0.35	12.0	12.6	10.5	
647320.813	3218.250	160	0.024	0.40	0.42	0.35	6.3	6.6	5.5	
647371.125	3218.375	161	0.024	0.40	0.43	0.36	2.2	2.4	2.0	
647371.125	3218.375	162	0.024	0.39	0.42	0.35	3.9	4.2	3.5	
647371.125	3218.375	163	0.020	0.39	0.42	0.35	5.1	5.5	4.6	
647320.813	3218.250	164	0.020	0.39	0.42	0.36	12.6	13.6	11.6	
647371.125	3218.375	165	0.022	0.39	0.42	0.35	7.6	8.2	6.9	
647371.125	3218.375	166	0.020	0.39	0.42	0.35	3.2	3.5	2.9	
647371.125	3218.375	167	0.022	0.39	0.42	0.35	3.6	3.8	3.2	
647320.813	3218.250	168	0.020	0.39	0.42	0.35	5.1	5.5	4.6	
647371.125	3218.375	169	0.020	0.39	0.42	0.35	3.2	3.5	2.9	
647371.125	3218.375	170	0.020	0.39	0.42	0.35	5.1	5.5	4.6	
647371.125	3218.375	171	0.020	0.39	0.43	0.36	3.2	3.6	3.0	
647320.813	3218.250	172	0.020	0.39	0.43	0.36	1.8	2.0	1.7	
647371.125	3218.375	173	0.022	0.39	0.43	0.35	5.6	6.2	5.0	
647371.125	3218.375	174	0.022	0.39	0.43	0.35	7.6	8.4	6.9	
647371.125	3218.375	175	0.020	0.38	0.43	0.36	3.2	3.6	3.0	
647320.813	3218.250	176	0.040	0.38	0.44	0.36	3.5	4.1	3.3	
647371.125	3218.375	177	0.040	0.38	0.44	0.36	3.5	4.1	3.3	
611979.375	3081.498	178	0.040	0.38	0.44	0.36	3.5	4.1	3.3	
195594.141	2230.683	179	0.004	0.43	0.45	0.32	0.7	0.7	0.5	
31184.344	970.755	180	0.020	0.38	0.44	0.36	1.8	2.0	1.7	
645057.813	3212.636	181	0.004	0.44	0.47	0.33	0.4	0.4	0.3	
647371.125	3218.375	182	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647320.813	3218.250	183	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647371.125	3218.375	184	0.004	0.43	0.45	0.32	0.4	0.4	0.3	
647371.125	3218.375	185	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647371.125	3218.375	186	0.004	0.43	0.45	0.33	1.1	1.2	0.9	
647320.813	3218.250	187	0.004	0.42	0.44	0.32	1.1	1.2	0.8	
647371.125	3218.375	188	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647371.125	3218.375	189	0.040	0.42	0.43	0.32	11.0	11.2	8.4	
647371.125	3218.375	190	0.015	0.42	0.43	0.32	7.9	8.0	6.0	
647320.813	3218.250	191	0.028	0.42	0.44	0.33	7.7	8.1	6.0	
647371.125	3218.375	192	0.028	0.41	0.43	0.33	4.8	5.0	3.8	
647371.125	3218.375	193	0.028	0.41	0.43	0.34	4.8	5.0	4.0	
647371.125	3218.375	194	0.009	0.41	0.43	0.33	2.4	2.5	1.9	
647320.813	3218.250	195	0.009	0.41	0.44	0.35	1.5	1.6	1.3	
647371.125	3218.375	196	0.009	0.40	0.43	0.33	0.8	0.9	0.7	
647371.125	3218.375	197	0.028	0.40	0.43	0.33	4.7	5.0	3.8	
647371.125	3218.375	198	0.009	0.40	0.43	0.33	1.5	1.6	1.2	
647320.813	3218.250	199	0.009	0.40	0.42	0.33	1.5	1.6	1.2	
647371.125	3218.375	200	0.028	0.40	0.42	0.34	7.3	7.7	6.2	
647371.125	3218.375	201	0.028	0.40	0.43	0.35	4.7	5.0	4.1	
647371.125	3218.375	202	0.040	0.40	0.42	0.34	10.5	11.0	8.9	
647320.813	3218.250	203	0.040	0.40	0.42	0.34	6.7	7.0	5.7	
647371.125	3218.375	204	0.040	0.40	0.43	0.35	10.5	11.2	9.1	
647371.125	3218.375	205	0.024	0.40	0.43	0.34	12.0	12.9	10.2	
647371.125	3218.375	206	0.024	0.40	0.43	0.35	15.5	16.7	13.6	

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647320.813	3218.250	207	0.024	0.40	0.42	0.35	8.6	9.0	7.5	
647371.125	3218.375	208	0.024	0.40	0.42	0.35	4.0	4.2	3.5	
647371.125	3218.375	209	0.024	0.40	0.42	0.35	2.2	2.3	1.9	
647371.125	3218.375	210	0.024	0.39	0.42	0.35	11.7	12.6	10.5	
647320.813	3218.250	211	0.020	0.39	0.42	0.35	12.6	13.6	11.3	
647371.125	3218.375	212	0.020	0.39	0.43	0.36	5.1	5.6	4.7	
647371.125	3218.375	213	0.020	0.39	0.42	0.35	1.8	1.9	1.6	
647371.125	3218.375	214	0.020	0.39	0.42	0.35	1.8	1.9	1.6	
647320.813	3218.250	215	0.020	0.39	0.42	0.34	3.2	3.5	2.8	
647371.125	3218.375	216	0.020	0.39	0.43	0.35	1.8	2.0	1.6	
647371.125	3218.375	217	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647371.125	3218.375	218	0.020	0.39	0.43	0.35	5.1	5.6	4.6	
647320.813	3218.250	219	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647371.125	3218.375	220	0.020	0.39	0.43	0.36	1.8	2.0	1.7	
647371.125	3218.375	221	0.020	0.39	0.43	0.35	7.0	7.7	6.2	
647371.125	3218.375	222	0.020	0.39	0.44	0.35	7.0	7.8	6.2	
647320.813	3218.250	223	0.020	0.38	0.44	0.35	5.0	5.8	4.6	
647371.125	3218.375	224	0.020	0.39	0.44	0.36	5.1	5.8	4.7	
647371.125	3218.375	225	0.020	0.38	0.43	0.35	3.2	3.6	2.9	
261864.750	2325.337	226	0.020	0.38	0.43	0.35	3.2	3.6	2.9	
396498.688	2798.067	227	0.004	0.44	0.48	0.33	0.4	0.4	0.3	
15377.906	602.086	228	0.004	0.44	0.48	0.33	0.4	0.4	0.3	
484465.625	2874.031	229	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647773.438	3219.375	230	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647773.438	3219.375	231	0.004	0.43	0.47	0.32	0.4	0.4	0.3	
647773.438	3219.375	232	0.004	0.42	0.45	0.32	1.1	1.2	0.8	
647723.125	3219.250	233	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647773.438	3219.375	234	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647773.438	3219.375	235	0.004	0.43	0.45	0.33	1.5	1.6	1.2	
647773.438	3219.375	236	0.004	0.43	0.45	0.33	1.1	1.2	0.9	
647723.125	3219.250	237	0.004	0.42	0.45	0.32	1.1	1.2	0.8	
647773.438	3219.375	238	0.004	0.42	0.44	0.32	0.4	0.4	0.3	
647773.438	3219.375	239	0.004	0.42	0.44	0.32	1.5	1.6	1.1	
647773.438	3219.375	240	0.028	0.42	0.43	0.32	10.5	10.7	8.0	
647723.125	3219.250	241	0.048	0.42	0.43	0.32	4.7	4.8	3.6	
647773.438	3219.375	242	0.028	0.42	0.43	0.33	4.9	5.0	3.8	
647773.438	3219.375	243	0.028	0.42	0.44	0.33	4.9	5.1	3.8	
647773.438	3219.375	244	0.028	0.42	0.44	0.34	7.7	8.1	6.2	
647723.125	3219.250	245	0.028	0.41	0.43	0.33	2.7	2.8	2.1	
647773.438	3219.375	246	0.009	0.41	0.43	0.34	0.9	0.9	0.7	
647773.438	3219.375	247	0.028	0.40	0.43	0.33	2.6	2.8	2.1	
647773.438	3219.375	248	0.009	0.40	0.43	0.33	0.8	0.9	0.7	
647723.125	3219.250	249	0.009	0.40	0.43	0.33	4.5	4.8	3.7	
647773.438	3219.375	250	0.009	0.40	0.43	0.33	2.4	2.5	1.9	
647773.438	3219.375	251	0.040	0.40	0.43	0.33	10.5	11.2	8.5	
647773.438	3219.375	252	0.024	0.40	0.43	0.33	8.6	9.2	7.1	
647723.125	3219.250	253	0.024	0.40	0.43	0.34	2.2	2.4	1.9	
647773.438	3219.375	254	0.040	0.40	0.43	0.34	14.3	15.3	12.1	
647773.438	3219.375	255	0.024	0.40	0.43	0.35	12.0	12.9	10.5	
647773.438	3219.375	256	0.022	0.40	0.43	0.34	2.0	2.2	1.7	
647723.125	3219.250	257	0.024	0.40	0.43	0.34	4.0	4.3	3.4	
647773.438	3219.375	258	0.024	0.40	0.43	0.35	8.3	8.7	5.5	

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647773.438	3219.375	259	0.024	0.40	0.42	0.34	6.3	6.6	5.3	
647773.438	3219.375	260	0.024	0.40	0.42	0.34	12.0	12.6	10.2	
647723.125	3219.250	261	0.020	0.39	0.42	0.35	12.6	13.6	11.3	
647773.438	3219.375	262	0.020	0.39	0.42	0.35	9.7	10.5	8.7	
647773.438	3219.375	263	0.020	0.39	0.43	0.36	3.2	3.6	3.0	
647773.438	3219.375	264	0.020	0.39	0.43	0.35	1.8	2.0	1.6	
647723.125	3219.250	265	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647773.438	3219.375	266	0.020	0.39	0.43	0.35	7.0	7.7	6.2	
647773.438	3219.375	267	0.020	0.39	0.43	0.34	5.1	5.6	4.4	
647773.438	3219.375	268	0.020	0.39	0.43	0.34	5.1	5.6	4.4	
647723.125	3219.250	269	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647773.438	3219.375	270	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647773.438	3219.375	271	0.020	0.39	0.43	0.35	1.8	2.0	1.6	
647773.438	3219.375	272	0.020	0.39	0.44	0.36	5.1	5.8	4.7	
647723.125	3219.250	273	0.020	0.39	0.44	0.35	5.1	5.8	4.6	
647773.438	3219.375	274	0.020	0.39	0.44	0.35	3.2	3.7	2.9	
647773.438	3219.375	275	0.020	0.39	0.44	0.35	3.2	3.7	2.9	
525531.875	2935.872	276	0.020	0.38	0.43	0.35	3.2	3.6	2.9	
22427.688	726.219	277	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
430633.844	2634.364	278	0.004	0.43	0.47	0.31	0.4	0.4	0.3	
647320.813	3218.250	279	0.004	0.43	0.47	0.31	0.4	0.4	0.3	
647371.125	3218.375	280	0.004	0.44	0.47	0.33	0.4	0.4	0.3	
647371.125	3218.375	281	0.004	0.44	0.47	0.33	0.4	0.4	0.3	
647371.125	3218.375	282	0.004	0.43	0.46	0.32	0.7	0.8	0.5	
647320.813	3218.250	283	0.004	0.43	0.46	0.32	1.5	1.6	1.1	
647371.125	3218.375	284	0.004	0.43	0.45	0.32	1.1	1.2	0.8	
647371.125	3218.375	285	0.004	0.43	0.45	0.32	2.1	2.2	1.6	
647371.125	3218.375	286	0.004	0.43	0.45	0.32	2.8	2.9	2.1	
647320.813	3218.250	287	0.004	0.42	0.45	0.32	2.1	2.2	1.6	
647371.125	3218.375	288	0.004	0.42	0.45	0.32	0.4	0.4	0.3	
647371.125	3218.375	289	0.004	0.42	0.44	0.32	2.7	2.8	2.1	
647371.125	3218.375	290	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647320.813	3218.250	291	0.015	0.42	0.44	0.32	4.1	4.3	3.1	
647371.125	3218.375	292	0.028	0.42	0.44	0.33	2.7	2.9	2.1	
647371.125	3218.375	293	0.028	0.42	0.43	0.32	7.7	7.9	5.9	
647371.125	3218.375	294	0.028	0.42	0.43	0.33	7.7	7.9	6.0	
647320.813	3218.250	295	0.028	0.42	0.44	0.34	2.7	2.9	2.2	
647371.125	3218.375	296	0.009	0.42	0.44	0.34	0.9	0.9	0.7	
647371.125	3218.375	297	0.009	0.40	0.43	0.32	0.8	0.9	0.7	
647371.125	3218.375	298	0.028	0.40	0.43	0.33	4.7	5.0	3.8	
647320.813	3218.250	299	0.009	0.40	0.43	0.33	4.5	4.8	3.7	
647371.125	3218.375	300	0.028	0.40	0.43	0.33	4.7	5.0	3.8	
647371.125	3218.375	301	0.040	0.40	0.43	0.33	14.3	15.3	11.8	
647371.125	3218.375	302	0.024	0.40	0.43	0.33	4.0	4.3	3.3	
647320.813	3218.250	303	0.024	0.40	0.43	0.33	6.3	6.7	5.2	
647371.125	3218.375	304	0.024	0.40	0.43	0.34	4.0	4.3	3.4	
647371.125	3218.375	305	0.024	0.40	0.43	0.33	8.6	9.2	7.1	
647371.125	3218.375	306	0.024	0.40	0.43	0.34	8.6	9.2	7.3	
647320.813	3218.250	307	0.022	0.40	0.43	0.34	2.0	2.2	1.7	
647371.125	3218.375	308	0.024	0.40	0.43	0.34	4.0	4.3	3.4	
647371.125	3218.375	309	0.024	0.40	0.43	0.35	6.3	6.7	5.5	
647371.125	3218.375	310	0.024	0.40	0.42	0.34	12.0	12.6	10.2	

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647320.813	3218.250	311	0.024	0.40	0.42	0.34	19.5	20.5	16.6	
647371.125	3218.375	312	0.020	0.39	0.42	0.34	15.6	17.1	13.8	
647371.125	3218.375	313	0.020	0.39	0.43	0.34	9.7	10.7	8.5	
647371.125	3218.375	314	0.020	0.39	0.43	0.35	7.0	7.7	6.2	
647320.813	3218.250	315	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647371.125	3218.375	316	0.020	0.39	0.43	0.35	7.0	7.7	6.2	
647371.125	3218.375	317	0.020	0.39	0.43	0.34	3.2	3.6	2.8	
647371.125	3218.375	318	0.020	0.39	0.43	0.34	5.1	5.6	4.4	
647320.813	3218.250	319	0.020	0.39	0.43	0.34	3.2	3.6	2.8	
647371.125	3218.375	320	0.020	0.39	0.43	0.34	3.2	3.6	2.8	
647371.125	3218.375	321	0.020	0.40	0.43	0.35	3.3	3.6	2.9	
647371.125	3218.375	322	0.020	0.39	0.44	0.35	3.2	3.7	2.9	
647320.813	3218.250	323	0.020	0.39	0.43	0.35	5.1	5.6	4.6	
647371.125	3218.375	324	0.020	0.39	0.44	0.35	5.1	5.8	4.6	
647371.125	3218.375	325	0.020	0.39	0.44	0.35	5.1	5.8	4.6	
644238.500	3194.779	326	0.020	0.40	0.44	0.36	3.3	3.7	3.0	
14990.250	1160.978	327	0.020	0.39	0.44	0.35	1.8	2.0	1.6	
841.172	204.959	328	0.004	0.43	0.47	0.31	0.4	0.4	0.3	
78212.484	1818.818	329	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647371.125	3218.375	330	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647320.813	3218.250	331	0.004	0.44	0.47	0.31	0.4	0.4	0.3	
647371.125	3218.375	332	0.004	0.44	0.47	0.31	0.4	0.4	0.3	
647371.125	3218.375	333	0.004	0.44	0.47	0.31	0.4	0.4	0.3	
647371.125	3218.375	334	0.004	0.43	0.46	0.31	0.4	0.4	0.3	
647320.813	3218.250	335	0.004	0.43	0.46	0.32	0.7	0.8	0.5	
647371.125	3218.375	336	0.004	0.43	0.46	0.32	1.1	1.2	0.8	
647371.125	3218.375	337	0.004	0.43	0.45	0.33	1.5	1.6	1.2	
647371.125	3218.375	338	0.004	0.43	0.45	0.32	1.5	1.6	1.1	
647320.813	3218.250	339	0.004	0.43	0.45	0.32	3.5	3.7	2.6	
647371.125	3218.375	340	0.004	0.42	0.44	0.31	2.7	2.8	2.0	
647371.125	3218.375	341	0.004	0.42	0.44	0.32	2.7	2.8	2.1	
647371.125	3218.375	342	0.015	0.42	0.44	0.32	4.1	4.3	3.1	
647320.813	3218.250	343	0.004	0.42	0.43	0.32	1.5	1.5	1.1	
647371.125	3218.375	344	0.015	0.42	0.43	0.32	10.2	10.4	7.8	
647371.125	3218.375	345	0.022	0.42	0.44	0.33	8.2	8.6	6.5	
647371.125	3218.375	346	0.015	0.42	0.44	0.33	2.6	2.7	2.1	
647320.813	3218.250	347	0.028	0.42	0.44	0.33	14.7	15.4	11.5	
647371.125	3218.375	348	0.028	0.42	0.43	0.33	10.5	10.7	8.2	
647371.125	3218.375	349	0.028	0.42	0.44	0.34	4.9	5.1	4.0	
647371.125	3218.375	350	0.028	0.40	0.43	0.32	4.7	5.0	3.7	
647320.813	3218.250	351	0.028	0.40	0.43	0.32	4.7	5.0	3.7	
647371.125	3218.375	352	0.028	0.40	0.43	0.33	7.3	7.9	6.0	
647371.125	3218.375	353	0.024	0.40	0.43	0.32	4.0	4.3	3.2	
647371.125	3218.375	354	0.040	0.40	0.43	0.33	10.5	11.2	8.6	
647320.813	3218.250	355	0.040	0.40	0.43	0.33	14.3	15.3	11.8	
647371.125	3218.375	356	0.024	0.40	0.43	0.33	2.2	2.4	1.8	
647371.125	3218.375	357	0.024	0.40	0.43	0.33	8.6	9.2	7.1	
647371.125	3218.375	358	0.024	0.40	0.42	0.33	6.3	6.6	5.2	
647320.813	3218.250	359	0.024	0.40	0.43	0.33	4.0	4.3	3.3	
647371.125	3218.375	360	0.024	0.40	0.43	0.33	4.0	4.3	3.3	
647371.125	3218.375	361	0.024	0.40	0.43	0.34	2.2	2.4	1.9	
647371.125	3218.375	362	0.024	0.40	0.43	0.35	4.0	4.3	3.5	

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647320.813	3218.250	363	0.024	0.40	0.43	0.34	6.3	6.7	5.3	
647371.125	3218.375	364	0.024	0.40	0.43	0.34	8.6	9.2	7.3	
647371.125	3218.375	365	0.020	0.39	0.43	0.34	9.7	10.7	8.5	
647371.125	3218.375	366	0.020	0.39	0.43	0.34	12.6	13.9	11.0	
647320.813	3218.250	367	0.020	0.39	0.43	0.35	12.6	13.9	11.3	
647371.125	3218.375	368	0.020	0.39	0.43	0.35	3.2	3.6	2.9	
647371.125	3218.375	369	0.020	0.39	0.43	0.35	7.0	7.7	6.2	
647371.125	3218.375	370	0.020	0.39	0.43	0.34	7.0	7.7	6.1	
647320.813	3218.250	371	0.020	0.39	0.43	0.33	5.1	5.6	4.3	
647371.125	3218.375	372	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	373	0.020	0.40	0.44	0.34	1.9	2.0	1.6	
647371.125	3218.375	374	0.020	0.39	0.43	0.34	3.2	3.6	2.8	
647320.813	3218.250	375	0.020	0.39	0.44	0.34	3.2	3.7	2.8	
647371.125	3218.375	376	0.020	0.40	0.44	0.35	1.9	2.0	1.6	
647371.125	3218.375	377	0.020	0.40	0.44	0.35	5.2	5.8	4.6	
647371.125	3218.375	378	0.020	0.40	0.44	0.35	7.1	7.8	6.2	
75522.438	1800.632	379	0.020	0.40	0.44	0.35	3.3	3.7	2.9	
205551.719	2138.083	380	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647773.438	3219.375	381	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647723.125	3219.250	382	0.004	0.44	0.47	0.31	0.4	0.4	0.3	
647773.438	3219.375	383	0.004	0.44	0.47	0.32	0.7	0.8	0.5	
647773.438	3219.375	384	0.004	0.44	0.47	0.32	1.2	1.2	0.8	
647773.438	3219.375	385	0.004	0.44	0.46	0.31	2.2	2.3	1.5	
647723.125	3219.250	386	0.004	0.43	0.46	0.31	2.1	2.3	1.5	
647773.438	3219.375	387	0.004	0.43	0.45	0.31	1.5	1.6	1.1	
647773.438	3219.375	388	0.004	0.43	0.45	0.31	1.5	1.6	1.1	
647773.438	3219.375	389	0.004	0.43	0.45	0.31	0.4	0.4	0.3	
647723.125	3219.250	390	0.004	0.43	0.45	0.31	2.1	2.2	1.5	
647773.438	3219.375	391	0.004	0.42	0.44	0.31	2.7	2.8	2.0	
647773.438	3219.375	392	0.004	0.42	0.44	0.31	2.1	2.2	1.5	
647773.438	3219.375	393	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647723.125	3219.250	394	0.015	0.42	0.44	0.31	1.5	1.5	1.1	
647773.438	3219.375	395	0.015	0.42	0.44	0.32	1.5	1.5	1.1	
647773.438	3219.375	396	0.015	0.42	0.43	0.31	2.6	2.7	1.9	
647773.438	3219.375	397	0.015	0.42	0.43	0.32	4.1	4.2	3.1	
647723.125	3219.250	398	0.015	0.42	0.44	0.33	4.1	4.3	3.2	
647773.438	3219.375	399	0.004	0.42	0.44	0.33	1.1	1.2	0.9	
647773.438	3219.375	400	0.028	0.42	0.43	0.32	7.7	7.9	5.9	
647773.438	3219.375	401	0.028	0.42	0.43	0.33	2.7	2.8	2.1	
647723.125	3219.250	402	0.028	0.41	0.43	0.33	4.8	5.0	3.8	
647773.438	3219.375	403	0.028	0.40	0.43	0.32	7.3	7.9	5.9	
647773.438	3219.375	404	0.028	0.40	0.43	0.33	7.3	7.9	6.0	
647773.438	3219.375	405	0.028	0.40	0.43	0.32	7.3	7.9	5.9	
647723.125	3219.250	406	0.040	0.40	0.43	0.32	10.5	11.2	8.4	
647773.438	3219.375	407	0.040	0.40	0.43	0.32	6.7	7.2	5.3	
647773.438	3219.375	408	0.040	0.40	0.43	0.32	14.3	15.3	11.4	
647773.438	3219.375	409	0.040	0.40	0.43	0.33	10.5	11.2	8.6	
647723.125	3219.250	410	0.024	0.40	0.43	0.33	12.0	12.9	9.9	
647773.438	3219.375	411	0.024	0.40	0.42	0.33	8.6	9.0	7.1	
647773.438	3219.375	412	0.024	0.40	0.43	0.33	6.3	6.7	5.2	
647773.438	3219.375	413	0.024	0.40	0.43	0.33	4.0	4.3	3.3	
647723.125	3219.250	414	0.024	0.40	0.43	0.33	2.2	2.4	1.8	

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647773.438	3219.375	415	0.024	0.40	0.43	0.33	4.0	4.3	3.3	
647773.438	3219.375	416	0.024	0.40	0.43	0.33	6.3	6.7	5.2	
647773.438	3219.375	417	0.020	0.39	0.43	0.33	5.1	5.6	4.3	
647723.125	3219.250	418	0.020	0.39	0.43	0.34	9.7	10.7	8.5	
647773.438	3219.375	419	0.020	0.39	0.43	0.34	9.7	10.7	8.5	
647773.438	3219.375	420	0.020	0.39	0.43	0.34	3.2	3.6	2.8	
647773.438	3218.375	421	0.024	0.39	0.44	0.34	2.2	2.4	1.9	
647723.125	3219.250	422	0.020	0.40	0.44	0.34	1.9	2.0	1.6	
647773.438	3219.375	423	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647773.438	3219.375	424	0.020	0.40	0.44	0.34	5.2	5.8	4.4	
647773.438	3219.375	425	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647723.125	3219.250	426	0.020	0.40	0.44	0.34	5.2	5.8	4.4	
647773.438	3219.375	427	0.020	0.40	0.44	0.35	5.2	5.8	4.6	
647773.438	3219.375	428	0.020	0.40	0.44	0.35	7.1	7.8	6.2	
647773.438	3219.375	429	0.020	0.40	0.45	0.35	7.1	8.0	6.2	
233791.234	2363.017	430	0.020	0.40	0.44	0.35	1.9	2.0	1.6	
8955.281	441.777	431	0.004	0.48	0.49	0.32	0.6	0.6	0.5	
7695.391	547.322	432	0.004	0.48	0.49	0.32	1.3	1.3	0.8	
600211.563	3053.322	433	0.004	0.48	0.49	0.32	0.6	0.6	0.5	
509526.625	2917.816	434	0.004	0.48	0.49	0.32	1.3	1.3	0.8	
331128.375	2414.682	435	0.004	0.45	0.48	0.31	0.7	0.8	0.5	
647371.125	3218.375	436	0.004	0.44	0.48	0.31	0.7	0.8	0.5	
647320.813	3218.250	437	0.004	0.44	0.48	0.31	0.7	0.8	0.5	
647371.125	3218.375	438	0.004	0.44	0.47	0.31	1.2	1.2	0.8	
647371.125	3218.375	439	0.004	0.44	0.46	0.31	2.2	2.3	1.5	
647371.125	3218.375	440	0.004	0.44	0.46	0.31	1.2	1.2	0.8	
647320.813	3218.250	441	0.004	0.43	0.46	0.31	1.5	1.6	1.1	
647371.125	3218.375	442	0.004	0.43	0.46	0.31	2.1	2.3	1.5	
647371.125	3218.375	443	0.004	0.43	0.46	0.31	2.8	3.0	2.0	
647371.125	3218.375	444	0.004	0.43	0.45	0.31	1.1	1.2	0.8	
647320.813	3218.250	445	0.004	0.43	0.45	0.31	0.4	0.4	0.3	
647371.125	3218.375	446	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647371.125	3218.375	447	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647371.125	3218.375	448	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647320.813	3218.250	449	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647371.125	3218.375	450	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647371.125	3218.375	451	0.004	0.42	0.43	0.31	0.7	0.7	0.5	
647371.125	3218.375	452	0.004	0.42	0.43	0.31	0.7	0.7	0.5	
647320.813	3218.250	453	0.015	0.42	0.43	0.32	4.1	4.2	3.1	
647371.125	3218.375	454	0.004	0.42	0.43	0.32	1.1	1.1	0.8	
647371.125	3218.375	455	0.028	0.42	0.44	0.33	4.9	5.1	3.8	
647371.125	3218.375	456	0.028	0.42	0.44	0.33	2.7	2.9	2.1	
647320.813	3218.250	457	0.040	0.42	0.43	0.32	3.9	4.0	3.0	
647371.125	3218.375	458	0.040	0.41	0.43	0.32	3.8	4.0	3.0	
647371.125	3218.375	459	0.028	0.40	0.43	0.32	7.3	7.9	5.9	
647371.125	3218.375	460	0.028	0.40	0.43	0.33	2.6	2.8	2.1	
647320.813	3218.250	461	0.028	0.40	0.43	0.32	4.7	5.0	3.7	
647371.125	3218.375	462	0.028	0.40	0.43	0.32	2.6	2.8	2.1	
647371.125	3218.375	463	0.040	0.40	0.43	0.32	14.3	15.3	11.4	
647371.125	3218.375	464	0.028	0.40	0.44	0.32	18.1	19.9	14.5	
647320.813	3218.250	465	0.001	0.40	0.44	0.32	0.4	0.4	0.3	
647371.125	3218.375	466	0.024	0.40	0.44	0.32	12.0	13.2	9.6	

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647371.125	3218.375	467	0.024	0.40	0.43	0.32	19.5	21.0	15.6	
647371.125	3218.375	468	0.024	0.40	0.44	0.33	15.5	17.1	12.8	
647320.813	3218.250	469	0.024	0.40	0.43	0.33	6.3	6.7	5.2	
647371.125	3218.375	470	0.024	0.40	0.44	0.33	12.0	13.2	9.9	
647371.125	3218.375	471	0.024	0.40	0.43	0.33	12.0	12.9	9.9	
647371.125	3218.375	472	0.020	0.40	0.43	0.33	5.2	5.6	4.3	
647320.813	3218.250	473	0.024	0.39	0.43	0.33	6.1	6.7	5.2	
647371.125	3218.375	474	0.024	0.39	0.43	0.33	11.7	12.9	9.9	
647371.125	3218.375	475	0.024	0.39	0.44	0.34	6.1	6.9	5.3	
647371.125	3218.375	476	0.024	0.40	0.44	0.34	4.0	4.4	3.4	
647320.813	3218.250	477	0.024	0.40	0.44	0.34	4.0	4.4	3.4	
647371.125	3218.375	478	0.020	0.40	0.44	0.35	7.1	7.8	6.2	
647371.125	3218.375	479	0.020	0.40	0.44	0.34	5.2	5.8	4.4	
647371.125	3218.375	480	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647320.813	3218.250	481	0.020	0.40	0.45	0.35	3.3	3.7	2.9	
647371.125	3218.375	482	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	483	0.020	0.40	0.44	0.34	5.2	5.8	4.4	
647371.125	3218.375	484	0.020	0.40	0.44	0.35	3.3	3.7	2.9	
582292.375	3020.027	485	0.020	0.40	0.45	0.35	3.3	3.7	2.9	
70378.023	1406.980	486	0.005	0.49	0.49	0.32	1.0	1.0	0.7	
54963.563	1145.736	487	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
97077.234	1539.897	488	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
380654.844	2591.051	489	0.004	0.49	0.49	0.33	0.8	0.8	0.5	
647371.125	3218.375	490	0.004	0.48	0.49	0.32	1.3	1.3	0.8	
647345.938	3218.313	491	0.004	0.48	0.50	0.33	0.8	0.8	0.5	
611403.625	3056.469	492	0.004	0.47	0.49	0.32	0.8	0.8	0.5	
271569.031	2317.221	493	0.001	0.45	0.48	0.31	0.2	0.2	0.1	
647371.125	3218.375	494	0.004	0.45	0.48	0.31	0.4	0.4	0.3	
647320.813	3218.250	495	0.004	0.44	0.47	0.30	0.7	0.8	0.5	
647371.125	3218.375	496	0.004	0.44	0.47	0.31	1.6	1.7	1.1	
647371.125	3218.375	497	0.004	0.44	0.47	0.31	1.2	1.2	0.8	
647371.125	3218.375	498	0.004	0.44	0.47	0.31	0.4	0.4	0.3	
647320.813	3218.250	499	0.004	0.44	0.46	0.31	0.4	0.4	0.3	
647371.125	3218.375	500	0.004	0.43	0.46	0.31	1.1	1.2	0.8	
647371.125	3218.375	501	0.004	0.43	0.46	0.31	3.5	3.7	2.5	
647371.125	3218.375	502	0.004	0.43	0.45	0.31	1.5	1.6	1.1	
647320.813	3218.250	503	0.004	0.43	0.45	0.32	0.4	0.4	0.3	
647371.125	3218.375	504	0.004	0.43	0.45	0.32	0.7	0.7	0.5	
647371.125	3218.375	505	0.004	0.42	0.44	0.31	1.1	1.2	0.8	
647371.125	3218.375	506	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647320.813	3218.250	507	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647371.125	3218.375	508	0.004	0.42	0.44	0.32	0.7	0.7	0.5	
647371.125	3218.375	509	0.004	0.42	0.44	0.32	1.1	1.2	0.8	
647371.125	3218.375	510	0.015	0.42	0.44	0.32	4.1	4.3	3.1	
647320.813	3218.250	511	0.015	0.42	0.44	0.31	2.6	2.7	1.9	
647371.125	3218.375	512	0.015	0.42	0.43	0.31	1.5	1.5	1.1	
647371.125	3218.375	513	0.040	0.42	0.44	0.32	7.0	7.3	5.3	
647371.125	3218.375	514	0.028	0.42	0.44	0.33	4.9	5.1	3.8	
647320.813	3218.250	515	0.028	0.42	0.44	0.32	2.7	2.9	2.1	
647371.125	3218.375	516	0.028	0.42	0.43	0.32	4.9	5.0	3.7	
647371.125	3218.375	517	0.028	0.42	0.43	0.33	7.7	7.9	6.0	
647371.125	3218.375	518	0.028	0.41	0.43	0.32	10.2	10.7	8.0	

647320.813	3218.250	519	0.028	0.40	0.44	0.32	4.7	5.1	3.7	
647371.125	3218.375	520	0.028	0.40	0.44	0.32	4.7	5.1	3.7	
647371.125	3218.375	521	0.009	0.40	0.44	0.32	1.5	1.6	1.2	
647371.125	3218.375	522	0.028	0.40	0.44	0.32	7.3	8.1	5.9	
647320.813	3218.250	523	0.022	0.40	0.44	0.32	7.8	8.6	6.3	
647371.125	3218.375	524	0.040	0.40	0.44	0.32	10.5	11.5	8.4	
647371.125	3218.375	525	0.024	0.40	0.44	0.32	4.0	4.4	3.2	
647371.125	3218.375	526	0.024	0.40	0.43	0.32	15.5	16.7	12.4	
647320.813	3218.250	527	0.024	0.40	0.44	0.32	12.0	13.2	9.6	
647371.125	3218.375	528	0.024	0.40	0.43	0.32	12.0	12.9	9.6	
647371.125	3218.375	529	0.024	0.40	0.44	0.33	12.0	13.2	9.9	
647371.125	3218.375	530	0.024	0.40	0.43	0.33	12.0	12.9	9.9	
647320.813	3218.250	531	0.024	0.40	0.44	0.33	4.0	4.4	3.3	
647371.125	3218.375	532	0.024	0.39	0.44	0.33	11.7	13.2	9.9	
647371.125	3218.375	533	0.024	0.40	0.44	0.33	6.3	6.9	5.2	
647371.125	3218.375	534	0.024	0.40	0.44	0.33	4.0	4.4	3.3	
647320.813	3218.250	535	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	536	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	537	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	538	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647320.813	3218.250	539	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	540	0.020	0.40	0.45	0.35	5.2	5.9	4.6	
647371.125	3218.375	541	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647371.125	3218.375	542	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
647320.813	3218.250	543	0.020	0.40	0.44	0.34	3.3	3.7	2.8	
475736.844	2879.288	544	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
118812.258	1669.376	545	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
7170.516	413.813	546	0.020	0.40	0.45	0.34	3.3	3.7	2.8	
537375.250	2947.178	547	0.005	0.49	0.49	0.33	3.1	3.1	2.1	
647773.438	3219.375	548	0.004	0.48	0.49	0.32	1.7	1.7	1.1	
647748.250	3219.313	549	0.004	0.48	0.49	0.32	1.3	1.3	0.8	
647773.438	3219.375	550	0.004	0.48	0.49	0.32	0.4	0.5	0.3	
578765.938	3002.704	551	0.004	0.47	0.49	0.32	0.8	0.8	0.5	
84256.250	1777.381	552	0.004	0.45	0.48	0.31	0.4	0.4	0.3	
647511.813	3208.810	553	0.004	0.45	0.48	0.30	0.7	0.8	0.5	
647723.125	3219.250	554	0.004	0.44	0.47	0.30	1.2	1.2	0.8	
647773.438	3219.375	555	0.004	0.44	0.47	0.30	1.6	1.7	1.1	
647773.438	3219.375	556	0.004	0.44	0.47	0.30	1.6	1.7	1.1	
647773.438	3219.375	557	0.004	0.44	0.47	0.31	1.2	1.2	0.8	
647723.125	3219.250	558	0.004	0.44	0.46	0.31	0.4	0.4	0.3	
647773.438	3219.375	559	0.004	0.43	0.46	0.30	0.7	0.8	0.5	
647773.438	3219.375	560	0.004	0.43	0.45	0.30	2.8	2.9	1.9	
647773.438	3219.375	561	0.004	0.43	0.45	0.31	3.5	3.7	2.5	
647723.125	3219.250	562	0.004	0.43	0.45	0.31	1.1	1.2	0.8	
647773.438	3219.375	563	0.004	0.43	0.45	0.31	2.8	2.9	2.0	
647773.438	3219.375	564	0.004	0.42	0.44	0.31	2.1	2.2	1.5	
647773.438	3219.375	565	0.004	0.42	0.44	0.31	1.5	1.6	1.1	
647723.125	3219.250	566	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647773.438	3219.375	567	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647773.438	3219.375	568	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647773.438	3219.375	569	0.004	0.42	0.44	0.32	1.1	1.2	0.8	
647723.125	3219.250	570	0.004	0.42	0.44	0.32	1.1	1.2	0.8	

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647371.125	3218.375	623	0.004	0.43	0.44	0.31	0.7	0.7	0.5	
647371.125	3218.375	624	0.004	0.42	0.44	0.30	1.5	1.6	1.1	
647320.813	3218.250	625	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647371.125	3218.375	626	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647371.125	3218.375	627	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647371.125	3218.375	628	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647320.813	3218.250	629	0.004	0.42	0.44	0.32	1.1	1.2	0.8	
647371.125	3218.375	630	0.048	0.42	0.44	0.32	8.4	8.8	6.4	
647371.125	3218.375	631	0.048	0.42	0.44	0.31	8.4	8.8	6.2	
647371.125	3218.375	632	0.048	0.42	0.44	0.31	13.2	13.8	9.7	
647320.813	3218.250	633	0.028	0.42	0.44	0.32	10.5	11.0	8.0	
647371.125	3218.375	634	0.028	0.42	0.44	0.31	10.5	11.0	7.7	
647371.125	3218.375	635	0.028	0.42	0.44	0.31	10.5	11.0	7.7	
647371.125	3218.375	636	0.028	0.42	0.44	0.32	4.9	5.1	3.7	
647320.813	3218.250	637	0.028	0.42	0.44	0.31	4.9	5.1	3.6	
647371.125	3218.375	638	0.028	0.42	0.44	0.33	2.7	2.9	2.1	
647371.125	3218.375	639	0.028	0.41	0.44	0.32	7.5	8.1	5.9	
647371.125	3218.375	640	0.028	0.41	0.44	0.32	10.2	11.0	8.0	
647320.813	3218.250	641	0.028	0.41	0.44	0.32	7.5	8.1	5.9	
647371.125	3218.375	642	0.022	0.40	0.44	0.32	3.7	4.0	2.9	
647371.125	3218.375	643	0.040	0.40	0.44	0.31	25.9	28.4	20.0	
647371.125	3218.375	644	0.024	0.40	0.44	0.32	4.0	4.4	3.2	
647320.813	3218.250	645	0.024	0.40	0.44	0.31	6.3	6.9	4.9	
647371.125	3218.375	646	0.024	0.40	0.44	0.31	4.0	4.4	3.1	
647371.125	3218.375	647	0.024	0.41	0.44	0.31	8.8	9.4	6.6	
647371.125	3218.375	648	0.024	0.41	0.44	0.32	12.3	13.2	9.6	
647320.813	3218.250	649	0.024	0.41	0.45	0.33	4.1	4.5	3.3	
647371.125	3218.375	650	0.024	0.41	0.44	0.32	4.1	4.4	3.2	
647371.125	3218.375	651	0.024	0.41	0.44	0.33	2.3	2.4	1.8	
647371.125	3218.375	652	0.024	0.40	0.44	0.32	4.0	4.4	3.2	
647320.813	3218.250	653	0.024	0.40	0.44	0.32	6.3	6.9	5.0	
647371.125	3218.375	654	0.024	0.40	0.45	0.32	4.0	4.5	3.2	
647371.125	3218.375	655	0.024	0.40	0.45	0.33	2.2	2.5	1.8	
647371.125	3218.375	656	0.024	0.40	0.45	0.33	6.3	7.1	5.2	
647320.813	3218.250	657	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647371.125	3218.375	658	0.020	0.40	0.45	0.33	7.1	8.0	5.9	
647371.125	3218.375	659	0.020	0.40	0.45	0.33	3.3	3.7	2.7	
647371.125	3218.375	660	0.020	0.40	0.45	0.34	7.1	8.0	6.1	
647320.813	3218.250	661	0.020	0.40	0.45	0.34	3.3	3.7	2.8	
647371.125	3218.375	662	0.020	0.40	0.45	0.34	3.3	3.7	2.8	
636488.125	3133.989	663	0.022	0.40	0.45	0.34	5.8	6.5	4.9	
135608.344	1821.297	664	0.022	0.40	0.45	0.34	2.0	2.3	1.7	
28017.000	814.992	665	0.004	0.47	0.49	0.32	0.4	0.5	0.3	
632455.063	3170.372	666	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647371.125	3218.375	667	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647345.938	3218.313	668	0.004	0.48	0.50	0.32	0.8	0.8	0.5	
647371.125	3218.375	669	0.004	0.48	0.50	0.32	0.4	0.5	0.3	
647345.938	3218.313	670	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
647345.938	3218.313	671	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
429057.875	2834.533	672	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
386725.625	3289.364	673	0.004	0.45	0.48	0.31	0.4	0.4	0.3	
647320.813	3218.250	674	0.004	0.45	0.48	0.31	0.4	0.4	0.3	

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647773.438	3219.375	571	0.004	0.42	0.44	0.31	0.7	0.7	0.5	
647773.438	3219.375	572	0.048	0.42	0.43	0.31	4.7	4.8	3.4	
647773.438	3219.375	573	0.048	0.42	0.44	0.32	4.7	4.9	3.6	
647723.125	3219.250	574	0.048	0.42	0.43	0.31	8.4	8.6	6.2	
647773.438	3219.375	575	0.001	0.42	0.44	0.32	0.2	0.2	0.1	
647773.438	3219.375	576	0.040	0.42	0.44	0.32	11.0	11.5	8.4	
647773.438	3219.375	577	0.028	0.42	0.44	0.32	7.7	8.1	5.9	
647723.125	3219.250	578	0.028	0.42	0.44	0.33	7.7	8.1	6.0	
647773.438	3219.375	579	0.028	0.41	0.44	0.32	4.8	5.1	3.7	
647773.438	3219.375	580	0.009	0.40	0.44	0.32	1.5	1.6	1.2	
647773.438	3219.375	581	0.028	0.40	0.44	0.31	14.0	15.4	10.8	
647723.125	3219.250	582	0.022	0.40	0.44	0.32	11.0	12.1	8.8	
647773.438	3219.375	583	0.022	0.40	0.44	0.31	14.2	15.6	11.0	
647773.438	3219.375	584	0.040	0.40	0.44	0.32	32.5	35.8	28.0	
647773.438	3219.375	585	0.024	0.40	0.44	0.32	4.0	4.4	3.2	
647723.125	3219.250	586	0.040	0.40	0.43	0.32	10.5	11.2	8.4	
647773.438	3219.375	587	0.024	0.40	0.44	0.32	8.6	9.4	6.8	
647773.438	3219.375	588	0.024	0.40	0.43	0.32	12.0	12.9	9.6	
647773.438	3219.375	589	0.024	0.40	0.44	0.32	2.2	2.4	1.8	
647723.125	3219.250	590	0.024	0.40	0.44	0.32	8.6	9.4	6.8	
647773.438	3219.375	591	0.024	0.41	0.44	0.33	8.8	9.4	7.1	
647773.438	3219.375	592	0.024	0.40	0.44	0.32	4.0	4.4	3.2	
647773.438	3219.375	593	0.024	0.40	0.44	0.33	4.0	4.4	3.3	
647723.125	3219.250	594	0.024	0.40	0.44	0.33	4.0	4.4	3.3	
647773.438	3219.375	595	0.024	0.40	0.44	0.33	2.2	2.4	1.8	
647773.438	3219.375	596	- 0.024	0.40	0.44	0.34	4.0	4.4	3.4	
647773.438	3219.375	597	0.024	0.40	0.44	0.34	2.2	2.4	1.9	
647723.125	3219.250	598	0.020	0.40	0.44	0.33	3.3	3.7	2.7	
647773.438	3219.375	599	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647773.438	3219.375	600	0.020	0.40	0.45	0.35	3.3	3.7	2.9	
647773.438	3219.375	601	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647723.125	3219.250	602	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647773.438	3219.375	603	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
322580.719	2582.859	604	0.022	0.40	0.45	0.34	3.7	4.1	3.1	
74933.906	1324.815	605	0.004	0.47	0.49	0.32	0.4	0.5	0.3	
583652.188	3062.050	606	0.004	0.49	0.49	0.32	1.3	1.3	0.8	
647371.125	3218.375	607	0.004	0.48	0.49	0.31	0.4	0.5	0.3	
647345.938	3218.313	608	0.004	0.48	0.49	0.32	1.3	1.3	0.8	
647371.125	3218.375	609	0.004	0.48	0.49	0.32	0.8	0.8	0.5	
647345.938	3218.313	610	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
529779.563	2935.167	611	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
445368.938	2842.984	612	0.004	0.45	0.48	0.31	0.4	0.4	0.3	
647320.813	3218.250	613	0.004	0.45	0.48	0.32	0.7	0.8	0.5	
647371.125	3218.375	614	0.004	0.44	0.47	0.30	1.2	1.2	0.8	
647371.125	3218.375	615	0.005	0.44	0.47	0.30	2.7	2.9	1.9	
647371.125	3218.375	616	0.004	0.44	0.47	0.30	2.2	2.3	1.5	
647320.813	3218.250	617	0.004	0.44	0.48	0.30	1.8	1.6	1.1	
647371.125	3218.375	618	0.004	0.44	0.48	0.31	2.2	2.3	1.5	
647371.125	3218.375	619	0.004	0.43	0.45	0.31	2.1	2.2	1.5	
647371.125	3218.375	620	0.004	0.43	0.45	0.30	1.1	1.2	0.8	
647320.813	3218.250	621	0.004	0.43	0.45	0.30	1.5	1.6	1.1	
647371.125	3218.375	622	0.004	0.43	0.45	0.31	2.1	2.2	1.5	

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647371.125	3218.375	675	0.004	0.45	0.47	0.31	0.7	0.8	0.5	
647371.125	3218.375	676	0.005	0.44	0.47	0.30	0.9	1.0	0.6	
647371.125	3218.375	677	0.005	0.44	0.47	0.30	2.0	2.1	1.3	
647320.813	3218.250	678	0.005	0.44	0.46	0.30	2.0	2.0	1.3	
647371.125	3218.375	679	0.005	0.44	0.46	0.30	1.4	1.5	1.0	
647371.125	3218.375	680	0.004	0.43	0.45	0.30	0.4	0.4	0.3	
647371.125	3218.375	681	0.004	0.44	0.46	0.31	0.4	0.4	0.3	
647320.813	3218.250	682	0.004	0.44	0.45	0.31	0.4	0.4	0.3	
647371.125	3218.375	683	0.004	0.44	0.44	0.30	1.2	1.2	0.8	
647371.125	3218.375	684	0.004	0.44	0.44	0.30	1.6	1.6	1.1	
647371.125	3218.375	685	0.004	0.43	0.44	0.30	1.1	1.2	0.8	
647320.813	3218.250	686	0.004	0.42	0.44	0.30	0.7	0.7	0.5	
647371.125	3218.375	687	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647371.125	3218.375	688	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647371.125	3218.375	689	0.004	0.42	0.44	0.31	0.4	3.4	0.3	
647320.813	3218.250	690	0.048	0.42	0.44	0.31	18.0	18.8	13.3	
647371.125	3218.375	691	0.048	0.42	0.44	0.32	18.0	18.8	13.7	
647371.125	3218.375	692	0.048	0.42	0.44	0.31	13.2	13.8	9.7	
647371.125	3218.375	693	0.015	0.42	0.44	0.31	4.1	4.3	3.0	
647320.813	3218.250	694	0.015	0.42	0.44	0.31	4.1	4.3	3.0	
647371.125	3218.375	695	0.028	0.42	0.44	0.31	7.7	8.1	5.7	
647371.125	3218.375	696	0.028	0.42	0.44	0.31	7.7	8.1	5.7	
647371.125	3218.375	697	0.028	0.42	0.44	0.31	4.9	5.1	3.6	
647320.813	3218.250	698	0.028	0.42	0.44	0.32	7.7	8.1	5.9	
647371.125	3218.375	699	0.028	0.42	0.44	0.31	7.7	8.1	5.7	
647371.125	3218.375	700	0.028	0.42	0.44	0.32	4.9	5.1	3.7	
647371.125	3218.375	701	0.028	0.41	0.44	0.32	10.2	11.0	8.0	
647320.813	3218.250	702	0.009	0.41	0.45	0.32	3.3	3.6	2.6	
647371.125	3218.375	703	0.022	0.41	0.44	0.31	11.3	12.1	8.5	
647371.125	3218.375	704	0.024	0.41	0.44	0.32	12.3	13.2	9.6	
647371.125	3218.375	705	0.022	0.41	0.45	0.32	3.8	4.1	2.9	
647320.813	3218.250	706	0.024	0.41	0.45	0.33	6.4	7.1	5.2	
647371.125	3218.375	707	0.024	0.41	0.45	0.32	4.1	4.5	3.2	
647371.125	3218.375	708	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	709	0.024	0.41	0.44	0.31	15.9	17.1	12.0	
647320.813	3218.250	710	0.024	0.41	0.44	0.31	8.8	9.4	6.6	
647371.125	3218.375	711	0.024	0.41	0.44	0.31	2.3	2.4	1.7	
647371.125	3218.375	712	0.024	0.41	0.44	0.32	6.4	6.9	5.0	
647371.125	3218.375	713	0.024	0.41	0.45	0.33	12.3	13.5	9.9	
647320.813	3218.250	714	0.024	0.40	0.45	0.32	12.0	13.5	9.6	
647371.125	3218.375	715	0.024	0.40	0.45	0.32	15.5	17.5	12.4	
647371.125	3218.375	716	0.024	0.40	0.45	0.32	6.3	7.1	5.0	
647371.125	3218.375	717	0.024	0.40	0.45	0.33	6.3	7.1	5.2	
647320.813	3218.250	718	0.020	0.40	0.45	0.33	3.3	3.7	2.7	
647371.125	3218.375	719	0.020	0.40	0.45	0.33	5.2	5.9	4.3	
647371.125	3218.375	720	0.020	0.40	0.45	0.33	3.3	3.7	2.7	
647371.125	3218.375	721	0.020	0.40	0.45	0.33	5.2	5.9	4.3	
647320.813	3218.250	722	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647371.125	3218.375	723	0.020	0.40	0.45	0.34	5.2	5.9	4.4	
647371.125	3218.375	724	0.022	0.41	0.45	0.34	8.0	8.8	6.7	
556401.000	2983.164	725	0.022	0.41	0.45	0.33	11.3	12.4	9.1	
62298.500	1205.249	726	0.022	0.41	0.45	0.33	5.9	6.5	4.7	

190710.938	2097.053	727	0.005	0.45	0.48	0.31	0.9	1.0	0.6	
2868.734	511.700	728	0.004	0.49	0.50	0.33	0.5	0.5	0.3	
70812.500	1789.054	729	0.004	0.46	0.49	0.32	0.8	0.8	0.5	
1830.938	208.349	730	0.004	0.46	0.48	0.31	1.2	1.3	0.8	
495.703	161.606	731	0.004	0.46	0.49	0.32	1.2	1.3	0.8	
50325.078	1738.792	732	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647748.250	3219.313	733	0.004	0.49	0.50	0.33	0.5	0.5	0.3	
647773.438	3219.375	734	0.004	0.49	0.50	0.33	0.5	0.5	0.3	
647748.250	3219.313	735	0.004	0.48	0.50	0.32	0.4	0.5	0.3	
647773.438	3219.375	736	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647748.250	3219.313	737	0.005	0.48	0.49	0.31	0.6	0.6	0.4	
647748.250	3219.313	738	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
647773.438	3219.375	739	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
586541.000	3133.927	740	0.004	0.47	0.49	0.32	0.8	0.8	0.5	
622278.688	3149.220	741	0.004	0.46	0.49	0.31	1.6	1.7	1.1	
647773.438	3219.375	742	0.004	0.46	0.49	0.31	0.4	0.5	0.3	
647773.438	3219.375	743	0.005	0.45	0.48	0.30	0.9	1.0	0.6	
647773.438	3219.375	744	0.005	0.45	0.48	0.30	0.9	1.0	0.6	
647723.125	3219.250	745	0.005	0.45	0.48	0.30	0.5	0.6	0.3	
647773.438	3219.375	746	0.005	0.45	0.48	0.31	0.5	0.6	0.4	
647773.438	3219.375	747	0.005	0.44	0.47	0.31	0.5	0.5	0.4	
647773.438	3219.375	748	0.005	0.44	0.47	0.30	0.5	0.5	0.3	
647723.125	3219.250	749	0.004	0.44	0.46	0.30	0.7	0.8	0.5	
647773.438	3219.375	750	0.005	0.45	0.46	0.31	1.5	1.5	1.0	
647773.438	3219.375	751	0.005	0.45	0.46	0.31	2.0	2.0	1.4	
647773.438	3219.375	752	0.005	0.44	0.45	0.29	2.0	2.0	1.3	
647723.125	3219.250	753	0.004	0.44	0.45	0.29	1.6	1.6	1.0	
647773.438	3219.375	754	0.004	0.44	0.44	0.30	0.7	0.7	0.5	
647773.438	3219.375	755	0.004	0.44	0.44	0.30	0.7	0.7	0.5	
647773.438	3219.375	756	0.004	0.44	0.44	0.30	1.2	1.2	0.8	
647723.125	3219.250	757	0.004	0.43	0.44	0.30	0.4	0.4	0.3	
647773.438	3219.375	758	0.004	0.43	0.44	0.30	0.4	0.4	0.3	
647773.438	3219.375	759	0.004	0.42	0.44	0.31	0.4	0.4	0.3	
647773.438	3219.375	760	0.048	0.42	0.45	0.30	13.2	14.1	9.4	
647723.125	3219.250	761	0.004	0.42	0.45	0.31	2.7	2.9	2.0	
647773.438	3219.375	762	0.048	0.42	0.44	0.31	18.0	18.8	13.3	
647773.438	3219.375	763	0.048	0.42	0.44	0.32	8.4	8.8	6.4	
647773.438	3219.375	764	0.015	0.42	0.44	0.31	1.5	1.5	1.1	
647723.125	3219.250	765	0.015	0.42	0.44	0.31	2.6	2.7	1.9	
647773.438	3219.375	766	0.015	0.42	0.44	0.30	2.6	2.7	1.9	
647773.438	3219.375	767	0.015	0.42	0.44	0.31	2.6	2.7	1.9	
647773.438	3219.375	768	0.015	0.42	0.44	0.31	5.6	5.9	4.1	
647723.125	3219.250	769	0.028	0.42	0.44	0.31	7.7	8.1	5.7	
647773.438	3219.375	770	0.028	0.42	0.44	0.31	4.9	5.1	3.6	
647773.438	3219.375	771	0.028	0.42	0.44	0.31	10.5	11.0	7.7	
647773.438	3219.375	772	0.028	0.42	0.44	0.32	14.7	15.4	11.2	
647723.125	3219.250	773	0.009	0.41	0.45	0.31	6.0	6.5	4.5	
647773.438	3219.375	774	0.022	0.41	0.45	0.31	8.0	8.8	6.1	
647773.438	3219.375	775	0.022	0.41	0.45	0.31	11.3	12.4	8.5	
647773.438	3219.375	776	0.024	0.41	0.45	0.32	20.0	21.9	15.6	
647723.125	3219.250	777	0.040	0.41	0.45	0.31	14.6	16.0	11.1	
647773.438	3219.375	778	0.024	0.41	0.45	0.32	4.1	4.5	3.2	

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647773.438	3219.375	779	0.024	0.41	0.45	0.32	15.9	17.5	12.4	
647773.438	3219.375	780	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647723.125	3219.250	781	0.048	0.41	0.44	0.31	12.9	13.8	9.7	
647773.438	3219.375	782	0.024	0.41	0.44	0.31	12.3	13.2	9.3	
647773.438	3219.375	783	0.024	0.41	0.44	0.31	8.8	9.4	6.6	
647773.438	3219.375	784	0.024	0.41	0.45	0.31	12.3	13.5	9.3	
647723.125	3219.250	785	0.024	0.40	0.45	0.32	8.6	9.6	6.8	
647773.438	3219.375	786	0.024	0.40	0.45	0.31	15.5	17.5	12.0	
647773.438	3219.375	787	0.024	0.40	0.45	0.32	8.6	9.6	6.8	
647773.438	3219.375	788	0.024	0.40	0.45	0.32	2.2	2.5	1.8	
647723.125	3219.250	789	0.024	0.40	0.45	0.32	6.3	7.1	5.0	
647773.438	3219.375	790	0.020	0.40	0.45	0.33	7.1	8.0	5.9	
647773.438	3219.375	791	0.020	0.40	0.45	0.33	3.3	3.7	2.7	
647773.438	3219.375	792	0.020	0.40	0.45	0.33	1.9	2.1	1.5	
647723.125	3219.250	793	0.020	0.41	0.45	0.34	5.4	5.9	4.4	
647773.438	3219.375	794	0.020	0.41	0.45	0.33	5.4	5.9	4.3	
647773.438	3219.375	795	0.022	0.41	0.45	0.34	8.0	8.8	6.7	
647773.438	3219.375	796	0.024	0.41	0.45	0.33	12.3	13.5	9.9	
624258.438	3127.747	797	0.024	0.41	0.45	0.33	12.3	13.5	9.9	
558962.750	3034.946	798	0.004	0.46	0.49	0.31	1.2	1.3	0.8	
491865.250	2852.090	799	0.024	0.41	0.45	0.33	12.3	13.5	9.9	
334134.000	2449.394	800	0.024	0.41	0.46	0.34	4.1	4.8	3.4	
114176.875	1941.477	801	0.024	0.40	0.46	0.34	4.0	4.6	3.4	
124681.898	1993.253	802	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647345.938	3218.313	803	0.004	0.49	0.50	0.33	0.8	0.8	0.5	
647371.125	3218.375	804	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647345.938	3218.313	805	0.004	0.48	0.50	0.32	0.4	0.5	0.3	
647371.125	3218.375	806	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647345.938	3218.313	807	0.005	0.48	0.50	0.32	1.0	1.0	0.7	
647345.938	3218.313	808	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
647371.125	3218.375	809	0.004	0.47	0.49	0.31	0.8	0.8	0.5	
647371.125	3218.375	810	0.004	0.47	0.49	0.31	1.7	1.7	1.1	
647371.125	3218.375	811	0.004	0.46	0.49	0.31	1.6	1.7	1.1	
647320.813	3218.250	812	0.004	0.46	0.48	0.31	1.2	1.3	0.8	
647371.125	3218.375	813	0.004	0.46	0.49	0.31	0.8	0.8	0.5	
647371.125	3218.375	814	0.004	0.46	0.48	0.31	0.4	0.4	0.3	
647371.125	3218.375	815	0.005	0.45	0.48	0.31	0.5	0.6	0.4	
647320.813	3218.250	816	0.005	0.45	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	817	0.005	0.45	0.47	0.30	0.5	0.5	0.3	
647371.125	3218.375	818	0.004	0.45	0.47	0.30	0.4	0.4	0.3	
647371.125	3218.375	819	0.005	0.45	0.47	0.30	0.5	0.5	0.3	
647320.813	3218.250	820	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	821	0.005	0.44	0.46	0.29	1.4	1.5	0.9	
647371.125	3218.375	822	0.005	0.44	0.46	0.29	2.0	2.0	1.3	
647371.125	3218.375	823	0.005	0.44	0.45	0.30	1.4	1.5	1.0	
647320.813	3218.250	824	0.004	0.44	0.45	0.30	1.2	1.2	0.8	
647371.125	3218.375	825	0.004	0.44	0.44	0.30	0.4	0.4	0.3	
647371.125	3218.375	826	0.004	0.44	0.44	0.29	1.2	1.2	0.8	
647371.125	3218.375	827	0.048	0.44	0.44	0.29	13.8	13.8	9.1	
647320.813	3218.250	828	0.004	0.44	0.44	0.30	0.4	0.4	0.3	
647371.125	3218.375	829	0.004	0.43	0.44	0.30	0.4	0.4	0.3	
647371.125	3218.375	830	0.004	0.43	0.45	0.30	0.7	0.7	0.5	

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647371.125	3218.375	831	0.004	0.42	0.45	0.30	1.5	1.6	1.1	
647320.813	3218.250	832	0.004	0.42	0.45	0.30	2.1	2.2	1.5	
647371.125	3218.375	833	0.004	0.42	0.44	0.30	0.7	0.7	0.5	
647371.125	3218.375	834	0.004	0.42	0.44	0.31	1.5	1.6	1.1	
647371.125	3218.375	835	0.004	0.42	0.44	0.31	1.1	1.2	0.8	
647320.813	3218.250	836	0.015	0.42	0.44	0.31	4.1	4.3	3.0	
647371.125	3218.375	837	0.015	0.42	0.44	0.31	5.6	5.9	4.1	
647371.125	3218.375	838	0.015	0.42	0.44	0.30	7.9	8.2	5.6	
647371.125	3218.375	839	0.015	0.42	0.44	0.31	7.9	8.2	5.8	
647320.813	3218.250	840	0.028	0.42	0.44	0.30	10.5	11.0	7.5	
647371.125	3218.375	841	0.028	0.42	0.45	0.31	2.7	2.9	2.0	
647371.125	3218.375	842	0.028	0.42	0.45	0.31	7.7	8.2	5.7	
647371.125	3218.375	843	0.040	0.42	0.45	0.30	15.0	16.0	10.7	
647320.813	3218.250	844	0.009	0.42	0.45	0.31	4.7	5.1	3.5	
647371.125	3218.375	845	0.009	0.41	0.45	0.31	2.4	2.6	1.8	
647371.125	3218.375	846	0.040	0.41	0.45	0.31	6.8	7.5	5.2	
647371.125	3218.375	847	0.022	0.41	0.45	0.31	3.8	4.1	2.8	
647320.813	3218.250	848	0.040	0.41	0.45	0.32	10.7	11.8	8.4	
647371.125	3218.375	849	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	850	0.024	0.41	0.45	0.32	15.9	17.5	12.4	
647371.125	3218.375	851	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647320.813	3218.250	852	0.048	0.41	0.46	0.32	31.8	35.7	24.8	
647371.125	3218.375	853	0.048	0.41	0.44	0.31	12.9	13.8	9.7	
647371.125	3218.375	854	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647371.125	3218.375	855	0.024	0.41	0.45	0.31	15.9	17.5	12.0	
647320.813	3218.250	856	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647371.125	3218.375	857	0.024	0.40	0.45	0.31	15.5	17.5	12.0	
647371.125	3218.375	858	0.024	0.40	0.45	0.31	12.0	13.5	9.3	
647371.125	3218.375	859	0.024	0.40	0.45	0.31	2.2	2.5	1.7	
647320.813	3218.250	860	0.024	0.40	0.45	0.32	6.3	7.1	5.0	
647371.125	3218.375	861	0.020	0.40	0.45	0.32	5.2	5.9	4.2	
647371.125	3218.375	862	0.020	0.40	0.45	0.32	3.3	3.7	2.7	
647371.125	3218.375	863	0.020	0.41	0.45	0.33	3.4	3.7	2.7	
647320.813	3218.250	864	0.020	0.41	0.45	0.33	5.4	5.9	4.3	
647371.125	3218.375	865	0.020	0.41	0.45	0.33	7.3	8.0	5.9	
647371.125	3218.375	866	0.022	0.41	0.45	0.33	11.3	12.4	9.1	
647371.125	3218.375	867	0.024	0.41	0.45	0.33	6.4	7.1	5.2	
647320.813	3218.250	868	0.024	0.41	0.45	0.33	4.1	4.5	3.3	
647371.125	3218.375	869	0.024	0.41	0.46	0.33	6.4	7.2	5.2	
647371.125	3218.375	870	0.024	0.41	0.46	0.33	12.3	13.8	9.9	
646315.000	3215.753	871	0.024	0.41	0.46	0.34	6.4	7.2	5.3	
470813.125	2850.691	872	0.024	0.41	0.46	0.34	6.4	7.2	5.3	
23821.875	745.721	873	0.024	0.42	0.46	0.34	2.3	2.6	1.9	
331705.406	2489.036	874	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647345.938	3218.313	875	0.004	0.49	0.50	0.33	0.8	0.8	0.5	
647371.125	3218.375	876	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647345.938	3218.313	877	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647371.125	3218.375	878	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647345.938	3218.313	879	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647345.938	3218.313	880	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647371.125	3218.375	881	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
647371.125	3218.375	882	0.004	0.47	0.49	0.31	0.4	0.5	0.3	

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647371.125	3218.375	883	0.004	0.47	0.49	0.31	0.4	0.5	0.3	
647320.813	3218.250	884	0.004	0.46	0.49	0.30	0.4	0.5	0.3	
647371.125	3218.375	885	0.004	0.46	0.49	0.30	0.8	0.8	0.5	
647371.125	3218.375	886	0.005	0.46	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	887	0.005	0.46	0.48	0.30	0.5	0.6	0.3	
647320.813	3218.250	888	0.005	0.45	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	889	0.005	0.45	0.48	0.31	0.5	0.6	0.4	
647371.125	3218.375	890	0.005	0.46	0.47	0.31	0.5	0.5	0.4	
647371.125	3218.375	891	0.005	0.46	0.47	0.31	0.5	0.5	0.4	
647320.813	3218.250	892	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	893	0.005	0.45	C.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	894	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	895	0.005	0.45	0.45	0.30	2.0	2.0	1.3	
647320.813	3218.250	896	0.005	0.44	0.45	0.29	2.7	2.8	1.8	
647371.125	3218.375	897	0.004	0.44	0.45	0.29	2.2	2.2	1.4	
647371.125	3218.375	898	0.004	0.44	0.45	0.31	0.7	0.7	0.5	
647371.125	3218.375	899	0.004	0.44	0.44	0.30	1.2	1.2	0.8	
647320.813	3218.250	900	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	901	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	902	0.004	0.43	0.45	0.30	0.7	0.7	0.5	
647371.125	3218.375	903	0.004	0.43	0.45	0.30	1.5	1.6	1.1	
647320.813	3218.250	904	0.004	0.42	0.45	0.30	1.5	1.6	1.1	
647371.125	3218.375	905	0.004	0.42	0.45	0.30	1.1	1.2	0.8	
647371.125	3218.375	906	0.004	0.42	0.44	0.30	1.1	1.2	0.8	
647371.125	3218.375	907	0.004	0.42	0.44	0.31	1.1	1.2	0.8	
647320.813	3218.250	908	0.004	0.42	0.44	0.31	1.5	1.6	1.1	
647371.125	3218.375	909	0.015	0.42	0.45	0.30	5.6	6.0	4.0	
647371.125	3218.375	910	0.015	0.42	0.45	0.30	5.6	6.0	4.0	
647371.125	3218.375	911	0.015	0.42	0.45	0.30	1.5	1.6	1.0	
647320.813	3218.250	912	0.015	0.42	0.45	0.31	4.1	4.4	3.0	
647371.125	3218.375	913	0.040	0.42	0.45	0.30	7.0	7.5	5.0	
647371.125	3218.375	914	0.028	0.42	0.45	0.30	10.5	11.2	7.5	
647371.125	3218.375	915	0.028	0.42	0.45	0.31	14.7	15.7	10.8	
647320.813	3218.250	916	0.009	0.42	0.45	0.30	1.6	1.7	1.1	
647371.125	3218.375	917	0.009	0.42	0.45	0.31	2.5	2.6	1.8	
647371.125	3218.375	918	0.009	0.41	0.45	0.30	2.4	2.6	1.8	
647371.125	3218.375	919	0.009	0.41	0.45	0.31	3.3	3.6	2.5	
647320.813	3218.250	920	0.024	0.41	0.45	0.30	8.8	9.6	6.4	
647371.125	3218.375	921	0.024	0.41	0.46	0.31	4.1	4.6	3.1	
647371.125	3218.375	922	0.024	0.41	0.45	0.30	6.4	7.1	4.7	
647371.125	3218.375	923	0.040	0.41	0.45	0.32	20.5	22.5	16.0	
647320.813	3218.250	924	0.024	0.41	0.45	0.31	12.3	13.5	9.3	
647371.125	3218.375	925	0.048	0.41	0.46	0.32	8.2	9.2	6.4	
647371.125	3218.375	926	0.048	0.41	0.45	0.31	17.5	19.2	13.3	
647371.125	3218.375	927	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647320.813	3218.250	928	0.024	0.41	0.45	0.31	12.3	13.5	9.3	
647371.125	3218.375	929	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	930	0.024	0.40	0.45	0.31	6.3	7.1	4.9	
647371.125	3218.375	931	0.024	0.40	0.45	0.31	6.3	7.1	4.9	
647320.813	3218.250	932	0.024	0.40	0.45	0.31	8.6	9.6	6.6	
647371.125	3218.375	933	0.024	0.40	0.45	0.31	12.0	13.5	9.3	
647371.125	3218.375	934	0.024	0.41	0.45	0.32	8.8	9.6	6.8	

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647371.125	3218.375	935	0.020	0.41	0.45	0.32	5.4	5.9	4.2	
647320.813	3218.250	936	0.024	0.41	0.45	0.32	4.1	4.5	3.2	
647371.125	3218.375	937	0.020	0.41	0.45	0.33	7.3	8.0	5.9	
647371.125	3218.375	938	0.022	0.41	0.45	0.33	11.3	12.4	9.1	
647371.125	3218.375	939	0.024	0.41	0.46	0.33	4.1	4.6	3.3	
647320.813	3218.250	940	0.024	0.41	0.46	0.33	8.8	9.8	7.1	
647371.125	3218.375	941	0.024	0.41	0.46	0.33	8.8	9.8	7.1	
647371.125	3218.375	942	0.024	0.41	0.46	0.33	8.8	9.8	7.1	
647371.125	3218.375	943	0.024	0.42	0.46	0.34	6.6	7.2	5.3	
647320.813	3218.250	944	0.024	0.42	0.46	0.34	9.0	9.8	7.3	
413770.875	2850.351	945	0.024	0.42	0.46	0.34	2.3	2.6	1.9	
571904.500	3024.338	946	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647748.250	3219.313	947	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647773.438	3219.375	948	0.005	0.49	0.50	0.32	0.6	0.6	0.4	
647748.250	3219.313	949	0.005	0.49	0.51	0.32	0.6	0.6	0.4	
647773.438	3219.375	950	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647748.250	3219.313	951	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647748.250	3219.313	952	0.005	0.48	0.50	0.32	1.0	1.0	0.7	
647773.438	3219.375	953	0.004	0.47	0.50	0.31	0.4	0.5	0.3	
647773.438	3219.375	954	0.005	0.47	0.49	0.31	0.5	0.6	0.4	
647773.438	3219.375	955	0.005	0.47	0.49	0.31	0.5	0.6	0.4	
647723.125	3219.250	956	0.004	0.12	0.12	0.08	0.1	0.1	0.1	
647773.438	3219.375	957	0.005	0.46	0.49	0.30	1.0	1.0	0.6	
647773.438	3219.375	958	0.005	0.46	0.49	0.31	1.0	1.0	0.6	
647773.438	3219.375	959	0.005	0.46	0.49	0.31	1.5	1.6	1.0	
647723.125	3219.250	960	0.005	0.45	0.48	0.30	0.9	1.0	0.6	
647773.438	3219.375	961	0.005	0.45	0.48	0.30	0.5	0.6	0.3	
647773.438	3219.375	962	0.005	0.45	0.47	0.30	0.5	0.5	0.3	
647773.438	3219.375	963	0.005	0.45	0.47	0.30	0.5	0.5	0.3	
647723.125	3219.250	964	0.005	0.45	0.47	0.30	0.9	1.0	0.6	
647773.438	3219.375	965	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647773.438	3219.375	966	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647773.438	3219.375	967	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647723.125	3219.250	968	0.004	0.45	0.45	0.30	1.2	1.2	0.8	
647773.438	3219.375	969	0.004	0.44	0.45	0.30	0.4	0.4	0.3	
647773.438	3219.375	970	0.004	0.44	0.45	0.30	1.2	1.2	0.8	
647773.438	3219.375	971	0.004	0.44	0.45	0.30	0.7	0.7	0.5	
647723.125	3219.250	972	0.004	0.44	0.45	0.30	0.4	0.4	0.3	
647773.438	3219.375	973	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647773.438	3219.375	974	0.004	0.44	0.45	0.30	0.4	0.4	0.3	
647773.438	3219.375	975	0.004	0.43	0.45	0.29	1.1	1.2	0.8	
647723.125	3219.250	976	0.004	0.43	0.45	0.30	1.1	1.2	0.8	
647773.438	3219.375	977	0.004	0.42	0.45	0.30	0.7	0.7	0.5	
647773.438	3219.375	978	0.004	0.42	0.45	0.30	0.7	0.7	0.5	
647773.438	3219.375	979	0.004	0.42	0.45	0.30	1.1	1.2	0.8	
647723.125	3219.250	980	0.004	0.42	0.45	0.31	0.7	0.7	0.5	
647773.438	3219.375	981	0.015	0.42	0.45	0.30	4.1	4.4	2.9	
647773.438	3219.375	982	0.015	0.42	0.45	0.29	1.5	1.6	1.0	
647773.438	3219.375	983	0.015	0.42	0.45	0.30	4.1	4.4	2.9	
647723.125	3219.250	984	0.040	0.42	0.45	0.30	3.9	4.2	2.8	
647773.438	3219.375	985	0.015	0.42	0.45	0.31	4.1	4.4	3.0	
647773.438	3219.375	986	0.028	0.42	0.45	0.30	4.9	5.2	3.5	

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647773.438	3219.375	987	0.028	0.42	0.45	0.30	4.9	5.2	3.5	
647723.125	3219.250	988	0.009	0.42	0.45	0.30	1.6	1.7	1.1	
647773.438	3219.375	989	0.009	0.42	0.45	0.30	0.9	0.9	0.6	
647773.438	3219.375	990	0.028	0.42	0.46	0.31	4.9	5.4	3.6	
647773.438	3219.375	991	0.040	0.41	0.45	0.30	10.7	11.8	7.8	
647723.125	3219.250	992	0.028	0.41	0.45	0.30	2.7	2.9	1.9	
647773.438	3219.375	993	0.040	0.41	0.45	0.30	10.7	11.8	7.8	
647773.438	3219.375	994	0.024	0.41	0.46	0.31	4.1	4.6	3.1	
647773.438	3219.375	995	0.024	0.41	0.45	0.30	8.8	9.6	6.4	
647723.125	3219.250	996	0.024	0.41	0.45	0.31	2.3	2.5	1.7	
647773.438	3219.375	997	0.048	0.41	0.45	0.30	8.2	9.0	6.0	
647773.438	3219.375	998	0.048	0.41	0.46	0.31	12.9	14.4	9.7	
647773.438	3219.375	999	0.024	0.41	0.45	0.31	2.3	2.5	1.7	
647723.125	3219.250	1000	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647773.438	3219.375	1001	0.024	0.41	0.45	0.31	2.3	2.5	1.7	
647773.438	3219.375	1002	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647773.438	3219.375	1003	0.024	0.40	0.45	0.31	12.0	13.5	9.3	
647723.125	3219.250	1004	0.024	0.40	0.45	0.31	12.0	13.5	9.3	
647773.438	3219.375	1005	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647773.438	3219.375	1006	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647773.438	3219.375	1007	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647723.125	3219.250	1008	0.024	0.41	0.45	0.32	4.1	4.5	3.2	
647773.438	3219.375	1009	0.020	0.41	0.45	0.32	3.4	3.7	2.7	
647773.438	3219.375	1010	0.022	0.41	0.45	0.33	8.0	8.8	6.5	
647773.438	3219.375	1011	0.024	0.41	0.46	0.33	8.8	9.8	7.1	
647723.125	3219.250	1012	0.024	0.41	0.46	0.33	6.4	7.2	5.2	
647773.438	3219.375	1013	0.024	0.42	0.46	0.34	4.2	4.6	3.4	
647773.438	3219.375	1014	0.024	0.42	0.46	0.34	2.3	2.6	1.9	
647773.438	3219.375	1015	0.024	0.42	0.46	0.34	6.6	7.2	5.3	
647723.125	3219.250	1016	0.024	0.42	0.46	0.34	9.0	9.8	7.3	
609590.875	3102.619	1017	0.024	0.42	0.46	0.34	2.3	2.6	1.9	
5670.000	504.275	1018	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
7772.188	478.678	1019	0.004	0.50	0.50	0.33	0.8	0.8	0.5	
205134.938	2190.354	1020	0.004	0.50	0.50	0.32	1.8	1.8	1.1	
647371.125	3218.375	1021	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647345.938	3218.313	1022	0.005	0.49	0.50	0.32	0.6	0.6	0.4	
647371.125	3218.375	1023	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647345.938	3218.313	1024	0.005	0.49	0.50	0.32	0.6	0.6	0.4	
647371.125	3218.375	1025	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647345.938	3218.313	1026	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647345.938	3218.313	1027	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647371.125	3218.375	1028	0.005	0.48	0.50	0.32	0.6	0.6	0.4	
647371.125	3218.375	1029	0.005	0.47	0.50	0.31	0.5	0.6	0.4	
647371.125	3218.375	1030	0.005	0.47	0.49	0.31	0.5	0.6	0.4	
647320.813	3218.250	1031	0.005	0.47	0.49	0.31	0.5	0.6	0.4	
647371.125	3218.375	1032	0.005	0.46	0.49	0.30	0.5	0.6	0.3	
647371.125	3218.375	1033	0.005	0.46	0.49	0.30	1.5	1.6	1.0	
647371.125	3218.375	1034	0.005	0.46	0.48	0.30	1.0	1.0	0.6	
647320.813	3218.250	1035	0.005	0.46	0.48	0.30	2.0	2.1	1.3	
647371.125	3218.375	1036	0.005	0.45	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	1037	0.005	0.46	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	1038	0.005	0.46	0.47	0.30	0.5	0.5	0.3	

647320.813	3218.250	1039	0.005	0.46	0.47	0.30	1.0	1.0	0.6	
647371.125	3218.375	1040	0.005	0.45	0.46	0.29	0.9	1.0	0.6	
647371.125	3218.375	1041	0.005	0.45	0.46	0.29	0.9	1.0	0.6	
647371.125	3218.375	1042	0.005	0.45	0.46	0.29	0.9	1.0	0.6	
647320.813	3218.250	1043	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	1044	0.005	0.45	0.46	0.30	0.5	0.5	0.3	
647371.125	3218.375	1045	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	1046	0.004	0.44	0.45	0.29	0.7	0.7	0.5	
647320.813	3218.250	1047	0.004	0.44	0.45	0.30	0.7	0.7	0.5	
647371.125	3218.375	1048	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	1049	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	1050	0.015	0.44	0.46	0.30	2.7	2.9	1.9	
647320.813	3218.250	1051	0.015	0.44	0.46	0.30	2.7	2.9	1.9	
647371.125	3218.375	1052	0.004	0.43	0.45	0.30	0.7	0.7	0.5	
647371.125	3218.375	1053	0.004	0.42	0.45	0.30	0.4	0.4	0.3	
647371.125	3218.375	1054	0.004	0.42	0.45	0.30	0.7	0.7	0.5	
647320.813	3218.250	1055	0.004	0.42	0.45	0.30	0.7	0.7	0.5	
647371.125	3218.375	1056	0.015	0.42	0.45	0.31	2.6	2.8	1.9	
647371.125	3218.375	1057	0.015	0.42	0.45	0.30	2.6	2.8	1.9	
647371.125	3218.375	1058	0.040	0.42	0.45	0.29	3.9	4.2	2.7	
647320.813	3218.250	1059	0.015	0.42	0.45	0.30	5.6	6.0	4.0	
647371.125	3218.375	1060	0.015	0.42	0.45	0.30	4.1	4.4	2.9	
647371.125	3218.375	1061	0.040	0.42	0.45	0.31	7.0	7.5	5.2	
647371.125	3218.375	1062	0.028	0.42	0.45	0.29	4.9	5.2	3.4	
647320.813	3218.250	1063	0.028	0.42	0.45	0.29	7.7	8.2	5.3	
647371.125	3218.375	1064	0.009	0.42	0.45	0.30	2.5	2.6	1.8	
647371.125	3218.375	1065	0.040	0.42	0.45	0.29	7.0	7.5	4.8	
647371.125	3218.375	1066	0.024	0.42	0.46	0.30	6.6	7.2	4.7	
647320.813	3218.250	1067	0.028	0.41	0.45	0.29	4.8	5.2	3.4	
647371.125	3218.375	1068	0.024	0.41	0.45	0.30	6.4	7.1	4.7	
647371.125	3218.375	1069	0.024	0.41	0.45	0.29	8.8	9.6	6.2	
647371.125	3218.375	1070	0.024	0.41	0.46	0.30	12.3	13.8	9.0	
647320.813	3218.250	1071	0.024	0.41	0.45	0.30	12.3	13.5	9.0	
647371.125	3218.375	1072	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1073	0.024	0.41	0.45	0.30	4.1	4.5	3.0	
647371.125	3218.375	1074	0.024	0.41	0.46	0.31	2.3	2.6	1.7	
647320.813	3218.250	1075	0.024	0.41	0.45	0.30	6.4	7.1	4.7	
647371.125	3218.375	1076	0.024	0.41	0.45	0.30	2.3	2.5	1.7	
647371.125	3218.375	1077	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647371.125	3218.375	1078	0.024	0.40	0.45	0.30	2.2	2.5	1.7	
647320.813	3218.250	1079	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647371.125	3218.375	1080	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1081	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1082	0.024	0.41	0.45	0.31	4.1	4.5	3.1	
647320.813	3218.250	1083	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1084	0.024	0.41	0.45	0.32	6.4	7.1	5.0	
647371.125	3218.375	1085	0.024	0.41	0.46	0.32	4.1	4.6	3.2	
647371.125	3218.375	1086	0.024	0.41	0.46	0.33	2.3	2.6	1.8	
647320.813	3218.250	1087	0.024	0.42	0.46	0.33	4.2	4.6	3.3	
647371.125	3218.375	1088	0.024	0.42	0.46	0.33	2.3	2.6	1.8	
647371.125	3218.375	1089	0.024	0.42	0.46	0.34	2.3	2.6	1.9	
647371.125	3218.375	1090	0.024	0.42	0.46	0.34	2.3	2.6	1.9	

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647320.813	3218.250	1081	0.024	0.42	0.46	0.35	9.0	9.8	7.5	
647371.125	3218.375	1082	0.024	0.42	0.47	0.34	9.0	10.1	7.3	
42443.188	1680.861	1083	0.024	0.42	0.47	0.34	6.6	7.4	5.3	
538530.375	2862.331	1084	0.004	0.50	0.50	0.32	1.3	1.3	0.8	
647371.125	3218.375	1085	0.004	0.49	0.50	0.32	2.4	2.5	1.6	
647345.938	3218.313	1086	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647371.125	3218.375	1087	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647345.938	3218.313	1088	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647371.125	3218.375	1089	0.005	0.48	0.50	0.32	1.0	1.0	0.7	
647345.938	3218.313	1100	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647345.938	3218.313	1101	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647371.125	3218.375	1102	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647371.125	3218.375	1103	0.005	0.47	0.50	0.30	0.5	0.6	0.3	
647371.125	3218.375	1104	0.005	0.47	0.50	0.30	0.5	0.6	0.3	
647320.813	3218.250	1105	0.005	0.47	0.49	0.30	1.0	1.0	0.6	
647371.125	3218.375	1106	0.005	0.47	0.49	0.30	1.0	1.0	0.6	
647371.125	3218.375	1107	0.005	0.46	0.49	0.30	1.0	1.0	0.6	
647371.125	3218.375	1108	0.005	0.46	0.48	0.30	1.5	1.6	1.0	
647320.813	3218.250	1109	0.005	0.47	0.48	0.30	1.5	1.6	1.0	
647371.125	3218.375	1110	0.005	0.47	0.48	0.30	0.5	0.6	0.3	
647371.125	3218.375	1111	0.005	0.46	0.48	0.29	0.5	0.6	0.3	
647371.125	3218.375	1112	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647320.813	3218.250	1113	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1114	0.005	0.46	0.47	0.30	0.5	0.5	0.3	
647371.125	3218.375	1115	0.005	0.45	0.46	0.29	0.9	1.0	0.6	
647371.125	3218.375	1116	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647320.813	3218.250	1117	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647371.125	3218.375	1118	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647371.125	3218.375	1119	0.005	0.45	0.46	0.30	0.5	0.5	0.3	
647371.125	3218.375	1120	0.004	0.44	0.46	0.29	0.4	0.4	0.3	
647320.813	3218.250	1121	0.004	0.44	0.45	0.29	0.4	0.4	0.3	
647371.125	3218.375	1122	0.004	0.44	0.46	0.30	0.4	0.4	0.3	
647371.125	3218.375	1123	0.004	0.44	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1124	0.015	0.44	0.46	0.29	2.7	2.9	1.8	
647320.813	3218.250	1125	0.015	0.44	0.46	0.30	2.7	2.9	1.9	
647371.125	3218.375	1126	0.015	0.44	0.46	0.30	1.5	1.6	1.0	
647371.125	3218.375	1127	0.015	0.43	0.45	0.29	1.5	1.6	1.0	
647371.125	3218.375	1128	0.015	0.42	0.45	0.29	1.5	1.6	1.0	
647320.813	3218.250	1129	0.015	0.42	0.45	0.30	1.5	1.6	1.0	
647371.125	3218.375	1130	0.015	0.42	0.45	0.29	1.5	1.6	1.0	
647371.125	3218.375	1131	0.004	0.42	0.45	0.30	1.1	1.2	0.8	
647371.125	3218.375	1132	0.004	0.42	0.45	0.30	1.1	1.2	0.8	
647320.813	3218.250	1133	0.004	0.42	0.45	0.29	1.1	1.2	0.8	
647371.125	3218.375	1134	0.004	0.42	0.45	0.30	0.4	0.4	0.3	
647371.125	3218.375	1135	0.004	0.42	0.45	0.30	0.4	0.4	0.3	
647371.125	3218.375	1136	0.015	0.42	0.46	0.31	1.5	1.6	1.1	
647320.813	3218.250	1137	0.028	0.42	0.45	0.29	4.9	5.2	3.4	
647371.125	3218.375	1138	0.028	0.42	0.45	0.29	4.9	5.2	3.4	
647371.125	3218.375	1139	0.009	0.42	0.45	0.30	2.5	2.6	1.8	
647371.125	3218.375	1140	0.040	0.42	0.45	0.29	11.0	11.8	7.6	
647320.813	3218.250	1141	0.024	0.41	0.45	0.29	2.3	2.5	1.6	
647371.125	3218.375	1142	0.024	0.41	0.45	0.29	4.1	4.5	2.9	

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647371.125	3218.375	1143	0.024	0.41	0.45	0.29	4.1	4.5	2.9	
647371.125	3218.375	1144	0.024	0.41	0.45	0.29	4.1	4.5	2.9	
647320.813	3218.250	1145	0.024	0.41	0.46	0.30	4.1	4.6	3.0	
647371.125	3218.375	1146	0.024	0.41	0.45	0.29	4.1	4.5	2.9	
647371.125	3218.375	1147	0.024	0.41	0.45	0.30	4.1	4.5	3.0	
647371.125	3218.375	1148	0.040	0.41	0.45	0.29	6.8	7.5	4.8	
647320.813	3218.250	1149	0.022	0.41	0.46	0.31	3.8	4.2	2.8	
647371.125	3218.375	1150	0.022	0.41	0.45	0.30	3.8	4.1	2.7	
647371.125	3218.375	1151	0.040	0.41	0.45	0.30	6.8	7.5	5.0	
647371.125	3218.375	1152	0.009	0.41	0.45	0.30	0.9	0.9	0.6	
647320.813	3218.250	1153	0.024	0.41	0.45	0.30	8.8	9.6	6.4	
647371.125	3218.375	1154	0.024	0.41	0.45	0.30	4.1	4.5	3.0	
647371.125	3218.375	1155	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1156	0.024	0.41	0.45	0.30	6.4	7.1	4.7	
647320.813	3218.250	1157	0.024	0.41	0.45	0.31	6.4	7.1	4.9	
647371.125	3218.375	1158	0.024	0.41	0.46	0.31	6.4	7.2	4.9	
647371.125	3218.375	1159	0.024	0.41	0.46	0.32	6.4	7.2	5.0	
647371.125	3218.375	1160	0.024	0.42	0.46	0.32	4.2	4.6	3.2	
647320.813	3218.250	1161	0.024	0.42	0.46	0.33	4.2	4.6	3.3	
647371.125	3218.375	1162	0.024	0.42	0.46	0.33	4.2	4.6	3.3	
647371.125	3218.375	1163	0.024	0.42	0.46	0.33	4.2	4.6	3.3	
647371.125	3218.375	1164	0.024	0.42	0.46	0.34	4.2	4.6	3.4	
647320.813	3218.250	1165	0.024	0.42	0.47	0.33	9.0	10.1	7.1	
647371.125	3218.375	1166	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
106582.438	2046.963	1167	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
26004.125	789.800	1168	0.004	0.50	0.50	0.33	0.8	0.8	0.5	
403164.875	2814.751	1169	0.004	0.50	0.50	0.33	0.8	0.8	0.5	
647748.250	3219.313	1170	0.004	0.50	0.50	0.33	0.8	0.8	0.5	
647773.438	3219.375	1171	0.004	0.50	0.50	0.32	1.8	1.8	1.1	
647748.250	3219.313	1172	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647773.438	3219.375	1173	0.005	0.49	0.50	0.32	1.6	1.6	1.0	
647748.250	3219.313	1174	0.005	0.49	0.50	0.32	2.2	2.2	1.4	
647773.438	3219.375	1175	0.005	0.49	0.50	0.31	1.6	1.6	1.0	
647748.250	3219.313	1176	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647748.250	3219.313	1177	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647773.438	3219.375	1178	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647773.438	3219.375	1179	0.004	0.48	0.50	0.31	0.8	0.8	0.5	
647773.438	3219.375	1180	0.005	0.47	0.50	0.30	1.0	1.0	0.6	
647723.125	3219.250	1181	0.005	0.47	0.49	0.30	1.0	1.0	0.6	
647773.438	3219.375	1182	0.005	0.48	0.49	0.31	1.6	1.6	1.0	
647773.438	3219.375	1183	0.005	0.48	0.49	0.30	1.6	1.6	1.0	
647773.438	3219.375	1184	0.005	0.47	0.49	0.30	1.0	1.0	0.6	
647723.125	3219.250	1185	0.005	0.47	0.48	0.30	1.0	1.0	0.6	
647773.438	3219.375	1186	0.005	0.47	0.48	0.30	0.5	0.6	0.3	
647773.438	3219.375	1187	0.004	0.47	0.48	0.30	0.4	0.4	0.3	
647773.438	3219.375	1188	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647723.125	3219.250	1189	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1190	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1191	0.005	0.46	0.47	0.30	0.5	0.5	0.3	
647773.438	3219.375	1192	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647723.125	3219.250	1193	0.005	0.45	0.46	0.30	0.5	0.5	0.3	
647773.438	3219.375	1194	0.005	0.45	0.46	0.29	0.5	0.5	0.3	

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647773.438	3219.375	1195	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647773.438	3219.375	1196	0.005	0.45	0.46	0.30	0.9	1.0	0.6	
647723.125	3219.250	1197	0.004	0.44	0.46	0.29	0.7	0.8	0.5	
647773.438	3219.375	1198	0.004	0.44	0.46	0.29	0.4	0.4	0.3	
647773.438	3219.375	1199	0.004	0.44	0.46	0.30	0.7	0.8	0.5	
647773.438	3219.375	1200	0.004	0.44	0.46	0.30	1.6	1.6	1.1	
647723.125	3219.250	1201	0.015	0.44	0.46	0.29	4.3	4.5	2.8	
647773.438	3219.375	1202	0.015	0.44	0.46	0.29	2.7	2.9	1.8	
647773.438	3219.375	1203	0.015	0.44	0.46	0.30	2.7	2.9	1.9	
647773.438	3219.375	1204	0.004	0.43	0.45	0.29	0.4	0.4	0.3	
647723.125	3219.250	1205	0.004	0.42	0.46	0.29	0.7	0.8	0.5	
647773.438	3219.375	1206	0.004	0.42	0.46	0.30	0.7	0.8	0.5	
647773.438	3219.375	1207	0.004	0.42	0.46	0.29	0.7	0.8	0.5	
647773.438	3219.375	1208	0.004	0.42	0.46	0.29	0.7	0.8	0.5	
647723.125	3219.250	1209	0.004	0.42	0.46	0.29	0.7	0.8	0.5	
647773.438	3219.375	1210	0.015	0.42	0.46	0.29	1.5	1.6	1.0	
647773.438	3219.375	1211	0.015	0.42	0.46	0.30	1.5	1.6	1.0	
647773.438	3219.375	1212	0.015	0.42	0.46	0.29	1.5	1.6	1.0	
647723.125	3219.250	1213	0.015	0.42	0.46	0.30	5.6	6.1	4.0	
647773.438	3219.375	1214	0.015	0.42	0.46	0.29	2.6	2.9	1.8	
647773.438	3219.375	1215	0.009	0.42	0.45	0.29	2.5	2.6	1.7	
647773.438	3219.375	1216	0.040	0.42	0.45	0.29	27.1	29.1	18.7	
647723.125	3219.250	1217	0.009	0.42	0.45	0.30	2.5	2.6	1.8	
647773.438	3219.375	1218	0.024	0.41	0.45	0.29	4.1	4.5	2.9	
647773.438	3219.375	1219	0.024	0.41	0.45	0.29	4.1	4.5	2.9	
647773.438	3219.375	1220	0.024	0.41	0.45	0.29	8.8	9.6	6.2	
647723.125	3219.250	1221	0.024	0.41	0.45	0.29	12.3	13.5	8.7	
647773.438	3219.375	1222	0.024	0.41	0.45	0.29	12.3	13.5	8.7	
647773.438	3219.375	1223	0.040	0.41	0.45	0.29	20.5	22.5	14.5	
647773.438	3219.375	1224	0.040	0.41	0.45	0.29	3.8	4.2	2.7	
647723.125	3219.250	1225	0.040	0.41	0.45	0.29	10.7	11.8	7.6	
647773.438	3219.375	1226	0.040	0.41	0.45	0.29	14.6	16.0	10.3	
647773.438	3219.375	1227	0.009	0.42	0.45	0.30	2.5	2.6	1.8	
647773.438	3219.375	1228	0.009	0.42	0.45	0.30	2.5	2.6	1.8	
647723.125	3219.250	1229	0.009	0.41	0.45	0.30	4.6	5.1	3.4	
647773.438	3219.375	1230	0.024	0.41	0.45	0.30	12.3	13.5	9.0	
647773.438	3219.375	1231	0.024	0.41	0.45	0.30	8.8	9.6	6.4	
647773.438	3219.375	1232	0.024	0.41	0.45	0.31	8.8	9.6	6.6	
647723.125	3219.250	1233	0.024	0.41	0.45	0.30	6.4	7.1	4.7	
647773.438	3219.375	1234	0.024	0.41	0.46	0.31	4.1	4.6	3.1	
647773.438	3219.375	1235	0.024	0.42	0.46	0.32	4.2	4.6	3.2	
647773.438	3219.375	1236	0.024	0.42	0.46	0.32	4.2	4.6	3.2	
647723.125	3219.250	1237	0.024	0.42	0.46	0.32	6.6	7.2	5.0	
647773.438	3219.375	1238	0.024	0.42	0.46	0.33	6.6	7.2	5.2	
647773.438	3219.375	1239	0.024	0.42	0.46	0.33	6.6	7.2	5.2	
647773.438	3219.375	1240	0.024	0.42	0.46	0.33	2.3	2.6	1.8	
647723.125	3219.250	1241	0.024	0.42	0.47	0.33	6.6	7.4	5.2	
647773.438	3219.375	1242	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
294825.281	2297.828	1243	0.024	0.43	0.47	0.34	2.4	2.6	1.9	
646553.938	3216.345	1244	0.004	0.50	0.50	0.33	0.5	0.5	0.3	
647345.938	3218.313	1245	0.004	0.50	0.50	0.33	0.5	0.5	0.3	
647371.125	3218.375	1246	0.004	0.50	0.50	0.33	0.8	0.8	0.5	

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647345.938	3218.313	1247	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647371.125	3218.375	1248	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647345.938	3218.313	1249	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647371.125	3218.375	1250	0.005	0.49	0.50	0.31	1.0	1.0	0.6	
647345.938	3218.313	1251	0.005	0.48	0.50	0.31	1.0	1.0	0.6	
647345.938	3218.313	1252	0.005	0.48	0.50	0.31	1.6	1.6	1.0	
647371.125	3218.375	1253	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647371.125	3218.375	1254	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647371.125	3218.375	1255	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647320.813	3218.250	1256	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647371.125	3218.375	1257	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647371.125	3218.375	1258	0.005	0.48	0.50	0.30	1.6	1.6	1.0	
647371.125	3218.375	1259	0.005	0.47	0.49	0.29	1.5	1.6	0.9	
647320.813	3218.250	1260	0.005	0.47	0.48	0.29	1.5	1.6	0.9	
647371.125	3218.375	1261	0.005	0.47	0.48	0.29	1.0	1.0	0.6	
647371.125	3218.375	1262	0.005	0.47	0.48	0.29	0.5	0.6	0.3	
647371.125	3218.375	1263	0.005	0.47	0.48	0.29	0.5	0.6	0.3	
647320.813	3218.250	1264	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1265	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1266	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1267	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647320.813	3218.250	1268	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647371.125	3218.375	1269	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647371.125	3218.375	1270	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647371.125	3218.375	1271	0.005	0.45	0.46	0.29	0.5	0.5	0.3	
647320.813	3218.250	1272	0.004	0.45	0.46	0.29	0.7	0.8	0.5	
647371.125	3218.375	1273	0.004	0.44	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1274	0.004	0.44	0.46	0.29	1.6	1.6	1.0	
647371.125	3218.375	1275	0.004	0.44	0.46	0.30	2.2	2.3	1.5	
647320.813	3218.250	1276	0.004	0.44	0.46	0.29	1.6	1.6	1.0	
647371.125	3218.375	1277	0.015	0.44	0.47	0.28	4.3	4.6	2.7	
647371.125	3218.375	1278	0.004	0.44	0.46	0.29	0.7	0.8	0.5	
647371.125	3218.375	1279	0.004	0.44	0.47	0.29	0.7	0.8	0.5	
647320.813	3218.250	1280	0.004	0.43	0.46	0.29	0.7	0.8	0.5	
647371.125	3218.375	1281	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1282	0.004	0.42	0.46	0.30	0.7	0.8	0.5	
647371.125	3218.375	1283	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647320.813	3218.250	1284	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1285	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1286	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647371.125	3218.375	1287	0.015	0.42	0.46	0.29	1.5	1.6	1.0	
647320.813	3218.250	1288	0.015	0.42	0.46	0.29	7.9	8.6	5.4	
647371.125	3218.375	1289	0.015	0.42	0.46	0.30	4.1	4.5	2.9	
647371.125	3218.375	1290	0.040	0.42	0.46	0.29	27.1	29.7	18.7	
647371.125	3218.375	1291	0.009	0.42	0.46	0.28	4.7	5.2	3.1	
647320.813	3218.250	1292	0.009	0.42	0.45	0.29	4.7	5.1	3.3	
647371.125	3218.375	1293	0.009	0.42	0.45	0.29	1.6	1.7	1.1	
647371.125	3218.375	1294	0.040	0.41	0.45	0.28	20.5	22.5	14.0	
647371.125	3218.375	1295	0.040	0.41	0.45	0.28	10.7	11.8	7.3	
647320.813	3218.250	1296	0.040	0.41	0.45	0.28	3.8	4.2	2.6	
647371.125	3218.375	1297	0.040	0.41	0.45	0.28	3.8	4.2	2.6	
647371.125	3218.375	1298	0.040	0.41	0.45	0.28	10.7	11.8	7.3	

647371.125	3218.375	1299	0.040	0.41	0.45	0.28	14.6	16.0	10.0	
647320.813	3218.250	1300	0.009	0.41	0.45	0.29	0.9	0.9	0.6	
647371.125	3218.375	1301	0.009	0.42	0.45	0.29	2.5	2.6	1.7	
647371.125	3218.375	1302	0.009	0.42	0.45	0.29	2.5	2.6	1.7	
647371.125	3218.375	1303	0.009	0.42	0.45	0.29	3.4	3.6	2.3	
647320.813	3218.250	1304	0.009	0.42	0.46	0.29	4.7	5.2	3.3	
647371.125	3218.375	1305	0.009	0.41	0.45	0.30	4.6	5.1	3.4	
647371.125	3218.375	1306	0.040	0.41	0.45	0.30	20.5	22.5	15.0	
647371.125	3218.375	1307	0.024	0.41	0.45	0.30	12.3	13.5	9.0	
647320.813	3218.250	1308	0.024	0.41	0.45	0.31	12.3	13.5	9.3	
647371.125	3218.375	1309	0.024	0.42	0.46	0.32	9.0	9.8	6.8	
647371.125	3218.375	1310	0.024	0.42	0.46	0.31	4.2	4.6	3.1	
647371.125	3218.375	1311	0.024	0.42	0.46	0.32	4.2	4.6	3.2	
647320.813	3218.250	1312	0.024	0.42	0.46	0.32	6.6	7.2	5.0	
647371.125	3218.375	1313	0.024	0.42	0.46	0.32	6.6	7.2	5.0	
647371.125	3218.375	1314	0.024	0.42	0.46	0.33	6.6	7.2	5.2	
647371.125	3218.375	1315	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
647320.813	3218.250	1316	0.024	0.43	0.47	0.33	2.4	2.6	1.8	
647371.125	3218.375	1317	0.024	0.43	0.47	0.33	6.7	7.4	5.2	
215354.594	2157.095	1318	0.024	0.43	0.47	0.34	6.7	7.4	5.3	
221174.375	2271.592	1319	0.004	0.50	0.50	0.33	0.5	0.5	0.3	
571097.500	3002.972	1320	0.005	0.50	0.50	0.33	1.0	1.0	0.7	
647773.438	3219.375	1321	0.004	0.50	0.50	0.33	0.8	0.8	0.5	
647748.250	3219.313	1322	0.004	0.50	0.50	0.33	0.5	0.5	0.3	
647773.438	3219.375	1323	0.004	0.50	0.50	0.32	0.8	0.8	0.5	
647748.250	3219.313	1324	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647773.438	3219.375	1325	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647748.250	3219.313	1326	0.004	0.49	0.50	0.32	1.7	1.8	1.1	
647773.438	3219.375	1327	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647748.250	3219.313	1328	0.004	0.48	0.50	0.31	1.3	1.3	0.8	
647748.250	3219.313	1329	0.005	0.48	0.50	0.31	2.1	2.2	1.4	
647773.438	3219.375	1330	0.005	0.48	0.50	0.30	1.6	1.6	1.0	
647773.438	3219.375	1331	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647773.438	3219.375	1332	0.005	0.49	0.50	0.30	0.6	0.6	0.3	
647723.125	3219.250	1333	0.004	0.48	0.50	0.30	0.4	0.5	0.3	
647773.438	3219.375	1334	0.005	0.48	0.49	0.29	0.6	0.6	0.3	
647773.438	3219.375	1335	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647773.438	3219.375	1336	0.004	0.48	0.49	0.29	1.3	1.3	0.8	
647723.125	3219.250	1337	0.005	0.47	0.48	0.29	2.1	2.1	1.3	
647773.438	3219.375	1338	0.005	0.47	0.48	0.29	2.1	2.1	1.3	
647773.438	3219.375	1339	0.005	0.47	0.48	0.29	1.0	1.0	0.6	
647773.438	3219.375	1340	0.005	0.47	0.48	0.29	0.5	0.6	0.3	
647723.125	3219.250	1341	0.005	0.47	0.47	0.30	0.5	0.5	0.3	
647773.438	3219.375	1342	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1343	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647773.438	3219.375	1344	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647723.125	3219.250	1345	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1346	0.005	0.45	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1347	0.005	0.45	0.47	0.29	0.5	0.5	0.3	
647773.438	3219.375	1348	0.005	0.45	0.47	0.29	0.9	1.0	0.6	
647723.125	3219.250	1349	0.004	0.45	0.47	0.29	0.7	0.8	0.5	
647773.438	3219.375	1350	0.004	0.45	0.47	0.29	0.7	0.8	0.5	

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647773.438	3219.375	1351	0.004	0.44	0.47	0.29	1.6	1.7	1.0	
647773.438	3219.375	1352	0.004	0.44	0.47	0.30	1.6	1.7	1.1	
647723.125	3219.250	1353	0.004	0.44	0.47	0.30	0.7	0.8	0.5	
647773.438	3219.375	1354	0.004	0.44	0.47	0.28	1.2	1.2	0.7	
647773.438	3219.375	1355	0.004	0.44	0.46	0.28	1.2	1.2	0.7	
647773.438	3219.375	1356	0.004	0.44	0.46	0.29	0.4	0.4	0.3	
647723.125	3219.250	1357	0.004	0.44	0.47	0.29	0.7	0.8	0.5	
647773.438	3219.375	1358	0.004	0.43	0.46	0.29	0.7	0.8	0.5	
647773.438	3219.375	1359	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647773.438	3219.375	1360	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647723.125	3219.250	1361	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647773.438	3219.375	1362	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647773.438	3219.375	1363	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647773.438	3219.375	1364	0.004	0.42	0.46	0.29	0.4	0.4	0.3	
647723.125	3219.250	1365	0.015	0.42	0.46	0.29	7.9	8.6	5.4	
647773.438	3219.375	1366	0.040	0.42	0.46	0.28	11.0	12.0	7.3	
647773.438	3219.375	1367	0.015	0.42	0.46	0.28	5.6	6.1	3.7	
647773.438	3219.375	1368	0.015	0.42	0.46	0.28	4.1	4.5	2.7	
647723.125	3219.250	1369	0.009	0.42	0.45	0.28	4.7	5.1	3.1	
647773.438	3219.375	1370	0.040	0.41	0.45	0.28	20.5	22.5	14.0	
647773.438	3219.375	1371	0.024	0.42	0.45	0.28	12.6	13.5	8.4	
647773.438	3219.375	1372	0.024	0.41	0.45	0.28	2.3	2.5	1.6	
647723.125	3219.250	1373	0.024	0.41	0.45	0.28	6.4	7.1	4.4	
647773.438	3219.375	1374	0.040	0.41	0.45	0.28	10.7	11.8	7.3	
647773.438	3219.375	1375	0.040	0.41	0.45	0.28	6.8	7.5	4.7	
647773.438	3219.375	1376	0.040	0.41	0.45	0.28	14.6	16.0	10.0	
647723.125	3219.250	1377	0.040	0.42	0.45	0.28	7.0	7.5	4.7	
647773.438	3219.375	1378	0.009	0.42	0.45	0.29	0.9	0.9	0.6	
647773.438	3219.375	1379	0.009	0.42	0.45	0.28	1.6	1.7	1.0	
647773.438	3219.375	1380	0.028	0.42	0.46	0.29	2.7	3.0	1.9	
647723.125	3219.250	1381	0.028	0.42	0.46	0.29	2.7	3.0	1.9	
647773.438	3219.375	1382	0.028	0.42	0.46	0.29	4.9	5.4	3.4	
647773.438	3219.375	1383	0.028	0.41	0.45	0.29	4.8	5.2	3.4	
647773.438	3219.375	1384	0.028	0.41	0.45	0.30	2.7	2.9	1.9	
647723.125	3219.250	1385	0.040	0.41	0.45	0.30	14.6	16.0	10.7	
647773.438	3219.375	1386	0.024	0.42	0.46	0.32	9.0	9.8	6.8	
647773.438	3219.375	1387	0.024	0.42	0.46	0.32	6.6	7.2	5.0	
647773.438	3219.375	1388	0.024	0.42	0.46	0.31	8.0	9.8	6.6	
647723.125	3219.250	1389	0.024	0.42	0.46	0.31	6.6	7.2	4.9	
647773.438	3219.375	1390	0.024	0.42	0.46	0.32	6.6	7.2	5.0	
647773.438	3219.375	1391	0.024	0.42	0.46	0.32	4.2	4.6	3.2	
647773.438	3219.375	1392	0.024	0.43	0.47	0.33	2.4	2.6	1.8	
647723.125	3219.250	1393	0.024	0.43	0.47	0.33	6.7	7.4	5.2	
646706.125	3195.056	1394	0.024	0.43	0.47	0.33	4.3	4.7	3.3	
88096.938	1698.647	1395	0.024	0.43	0.47	0.33	6.7	7.4	5.2	
21927.211	757.972	1396	0.005	0.50	0.50	0.33	1.0	1.0	0.7	
306187.688	2486.759	1397	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647345.938	3218.313	1398	0.005	0.50	0.50	0.33	1.0	1.0	0.7	
647371.125	3218.375	1399	0.005	0.50	0.50	0.33	1.0	1.0	0.7	
647345.938	3218.313	1400	0.005	0.50	0.50	0.33	1.0	1.0	0.7	
647371.125	3218.375	1401	0.005	0.50	0.50	0.33	1.6	1.6	1.1	
647345.938	3218.313	1402	0.005	0.49	0.50	0.32	1.6	1.6	1.0	

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647371.125	3218.375	1403	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647345.938	3218.313	1404	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647371.125	3218.375	1405	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647345.938	3218.313	1406	0.004	0.49	0.50	0.32	1.7	1.8	1.1	
647345.938	3218.313	1407	0.004	0.48	0.50	0.31	1.7	1.8	1.1	
647371.125	3218.375	1408	0.005	0.48	0.50	0.30	1.0	1.0	0.6	
647371.125	3218.375	1409	0.005	0.49	0.50	0.31	0.6	0.6	0.4	
647371.125	3218.375	1410	0.005	0.49	0.50	0.31	0.6	0.6	0.4	
647320.813	3218.250	1411	0.005	0.49	0.50	0.30	0.6	0.6	0.3	
647371.125	3218.375	1412	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647371.125	3218.375	1413	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647371.125	3218.375	1414	0.004	0.48	0.49	0.29	0.8	0.8	0.5	
647320.813	3218.250	1415	0.005	0.48	0.49	0.29	1.6	1.6	0.9	
647371.125	3218.375	1416	0.005	0.47	0.48	0.29	2.1	2.1	1.3	
647371.125	3218.375	1417	0.005	0.47	0.48	0.29	2.1	2.1	1.3	
647371.125	3218.375	1418	0.004	0.47	0.48	0.28	0.8	0.8	0.5	
647320.813	3218.250	1419	0.005	0.47	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1420	0.005	0.47	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1421	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1422	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647320.813	3218.250	1423	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647371.125	3218.375	1424	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647371.125	3218.375	1425	0.005	0.46	0.47	0.29	0.5	0.5	0.3	
647371.125	3218.375	1426	0.005	0.45	0.47	0.28	0.9	1.0	0.6	
647320.813	3218.250	1427	0.005	0.45	0.47	0.29	0.9	1.0	0.6	
647371.125	3218.375	1428	0.005	0.45	0.47	0.29	0.9	1.0	0.6	
647371.125	3218.375	1429	0.004	0.45	0.47	0.29	1.2	1.2	0.8	
647371.125	3218.375	1430	0.004	0.44	0.47	0.29	1.2	1.2	0.8	
647320.813	3218.250	1431	0.004	0.44	0.47	0.29	0.7	0.8	0.5	
647371.125	3218.375	1432	0.004	0.44	0.47	0.29	1.6	1.7	1.0	
647371.125	3218.375	1433	0.004	0.44	0.46	0.28	0.7	0.8	0.5	
647371.125	3218.375	1434	0.004	0.44	0.46	0.28	0.7	0.8	0.5	
647320.813	3218.250	1435	0.004	0.44	0.46	0.29	1.2	1.2	0.8	
647371.125	3218.375	1436	0.004	0.44	0.47	0.29	1.2	1.2	0.8	
647371.125	3218.375	1437	0.004	0.43	0.47	0.29	0.7	0.8	0.5	
647371.125	3218.375	1438	0.004	0.42	0.47	0.28	0.4	0.4	0.3	
647320.813	3218.250	1439	0.004	0.42	0.47	0.28	0.4	0.4	0.3	
647371.125	3218.375	1440	0.004	0.42	0.47	0.28	0.4	0.4	0.3	
647371.125	3218.375	1441	0.004	0.42	0.46	0.28	0.4	0.4	0.3	
647371.125	3218.375	1442	0.004	0.42	0.46	0.28	1.1	1.2	0.7	
647320.813	3218.250	1443	0.040	0.42	0.46	0.28	15.0	16.4	10.0	
647371.125	3218.375	1444	0.015	0.42	0.46	0.28	2.6	2.9	1.7	
647371.125	3218.375	1445	0.015	0.42	0.46	0.28	4.1	4.5	2.7	
647371.125	3218.375	1446	0.040	0.42	0.46	0.28	11.0	12.0	7.3	
647320.813	3218.250	1447	0.040	0.42	0.46	0.28	21.0	23.0	14.0	
647371.125	3218.375	1448	0.024	0.42	0.45	0.28	9.0	9.6	6.0	
647371.125	3218.375	1449	0.024	0.41	0.45	0.28	4.1	4.5	2.8	
647371.125	3218.375	1450	0.024	0.42	0.45	0.28	4.2	4.5	2.8	
647320.813	3218.250	1451	0.024	0.41	0.45	0.28	4.1	4.5	2.8	
647371.125	3218.375	1452	0.024	0.41	0.45	0.28	2.3	2.5	1.6	
647371.125	3218.375	1453	0.040	0.42	0.45	0.28	11.0	11.8	7.3	
647371.125	3218.375	1454	0.024	0.42	0.45	0.28	6.6	7.1	4.4	

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647320.813	3218.250	1455	0.024	0.42	0.45	0.29	12.6	13.5	8.7	
647371.125	3218.375	1456	0.009	0.42	0.45	0.28	1.6	1.7	1.0	
647371.125	3218.375	1457	0.009	0.42	0.45	0.28	1.6	1.7	1.0	
647371.125	3218.375	1458	0.022	0.42	0.45	0.28	2.1	2.3	1.4	
647320.813	3218.250	1459	0.022	0.42	0.46	0.28	2.1	2.3	1.4	
647371.125	3218.375	1460	0.022	0.42	0.46	0.29	2.1	2.3	1.5	
647371.125	3218.375	1461	0.026	0.42	0.46	0.29	4.9	5.4	3.4	
647371.125	3218.375	1462	0.026	0.41	0.45	0.29	4.8	5.2	3.4	
647320.813	3218.250	1463	0.009	0.42	0.46	0.30	0.9	1.0	0.6	
647371.125	3218.375	1464	0.009	0.42	0.46	0.30	2.5	2.7	1.8	
647371.125	3218.375	1465	0.040	0.42	0.46	0.31	21.0	23.0	15.5	
647371.125	3218.375	1466	0.024	0.42	0.46	0.31	9.0	9.8	6.6	
647320.813	3218.250	1467	0.024	0.42	0.46	0.31	9.0	9.8	6.6	
647371.125	3218.375	1468	0.024	0.42	0.46	0.31	12.6	13.8	9.3	
647371.125	3218.375	1469	0.024	0.42	0.47	0.31	6.6	7.4	4.9	
647371.125	3218.375	1470	0.024	0.43	0.47	0.32	4.3	4.7	3.2	
647320.813	3218.250	1471	0.024	0.43	0.47	0.32	9.2	10.1	6.8	
632443.063	3240.674	1472	0.024	0.43	0.47	0.33	12.9	14.1	9.9	
343888.813	2590.876	1473	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
160132.813	2070.528	1474	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
1649.344	224.342	1475	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
611549.125	3070.470	1476	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647345.938	3218.313	1477	0.005	0.50	0.51	0.34	1.0	1.1	0.7	
647371.125	3218.375	1478	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647345.938	3218.313	1479	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647371.125	3218.375	1480	0.005	0.50	0.51	0.33	1.6	1.7	1.1	
647345.938	3218.313	1481	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647371.125	3218.375	1482	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647345.938	3218.313	1483	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647371.125	3218.375	1484	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647345.938	3218.313	1485	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647345.938	3218.313	1486	0.005	0.48	0.50	0.31	0.6	0.6	0.4	
647371.125	3218.375	1487	0.005	0.48	0.50	0.30	0.6	0.6	0.3	
647371.125	3218.375	1488	0.005	0.49	0.50	0.31	1.0	1.0	0.6	
647371.125	3218.375	1489	0.005	0.49	0.50	0.31	1.0	1.0	0.6	
647320.813	3218.250	1490	0.005	0.49	0.50	0.30	1.6	1.6	1.0	
647371.125	3218.375	1491	0.004	0.48	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	1492	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647371.125	3218.375	1493	0.005	0.48	0.49	0.29	0.6	0.6	0.3	
647320.813	3218.250	1494	0.005	0.48	0.49	0.29	1.6	1.6	0.9	
647371.125	3218.375	1495	0.005	0.48	0.48	0.29	1.0	1.0	0.6	
647371.125	3218.375	1496	0.005	0.47	0.48	0.29	1.5	1.6	0.9	
647371.125	3218.375	1497	0.005	0.47	0.48	0.28	1.5	1.6	0.9	
647320.813	3218.250	1498	0.004	0.47	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	1499	0.005	0.47	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1500	0.005	0.47	0.47	0.28	0.5	0.5	0.3	
647371.125	3218.375	1501	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647320.813	3218.250	1502	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647371.125	3218.375	1503	0.005	0.46	0.47	0.28	0.5	0.5	0.3	
647371.125	3218.375	1504	0.004	0.46	0.47	0.28	0.8	0.8	0.5	
647371.125	3218.375	1505	0.005	0.46	0.47	0.29	1.0	1.0	0.6	
647320.813	3218.250	1506	0.005	0.45	0.47	0.28	0.9	1.0	0.6	

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647371.125	3218.375	1507	0.005	0.45	0.47	0.28	0.9	1.0	0.6	
647371.125	3218.375	1508	0.005	0.45	0.47	0.28	0.9	1.0	0.6	
647371.125	3218.375	1509	0.004	0.45	0.47	0.29	0.7	0.8	0.5	
647320.813	3218.250	1510	0.004	0.45	0.48	0.30	0.7	0.8	0.5	
647371.125	3218.375	1511	0.004	0.44	0.48	0.29	1.2	1.3	0.8	
647371.125	3218.375	1512	0.004	0.44	0.47	0.29	0.7	0.8	0.5	
647371.125	3218.375	1513	0.004	0.44	0.47	0.28	1.6	1.7	1.0	
647320.813	3218.250	1514	0.004	0.44	0.47	0.28	1.6	1.7	1.0	
647371.125	3218.375	1515	0.004	0.44	0.47	0.28	1.6	1.7	1.0	
647371.125	3218.375	1516	0.004	0.44	0.47	0.29	1.2	1.2	0.8	
647371.125	3218.375	1517	0.004	0.43	0.47	0.28	0.4	0.4	0.3	
647320.813	3218.250	1518	0.004	0.42	0.47	0.28	0.4	0.4	0.3	
647371.125	3218.375	1519	0.004	0.42	0.47	0.28	0.4	0.4	0.3	
647371.125	3218.375	1520	0.015	0.42	0.47	0.28	1.5	1.6	1.0	
647371.125	3218.375	1521	0.040	0.42	0.46	0.28	11.0	12.0	7.3	
647320.813	3218.250	1522	0.015	0.42	0.46	0.28	4.1	4.5	2.7	
647371.125	3218.375	1523	0.015	0.42	0.46	0.28	2.6	2.9	1.7	
647371.125	3218.375	1524	0.015	0.42	0.46	0.27	4.1	4.5	2.6	
647371.125	3218.375	1525	0.040	0.35	0.37	0.22	9.1	9.7	5.8	
647320.813	3218.250	1526	0.026	0.43	0.46	0.28	5.0	5.4	3.3	
647371.125	3218.375	1527	0.026	0.42	0.45	0.27	2.7	2.9	1.8	
647371.125	3218.375	1528	0.026	0.42	0.45	0.28	2.7	2.9	1.8	
647371.125	3218.375	1529	0.024	0.42	0.45	0.28	4.2	4.5	2.8	
647320.813	3218.250	1530	0.024	0.43	0.45	0.28	6.7	7.1	4.4	
647371.125	3218.375	1531	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647371.125	3218.375	1532	0.040	0.42	0.45	0.28	11.0	11.8	7.3	
647371.125	3218.375	1533	0.040	0.42	0.45	0.28	15.0	16.0	10.0	
647320.813	3218.250	1534	0.024	0.42	0.45	0.28	16.3	17.5	10.9	
647371.125	3218.375	1535	0.024	0.42	0.45	0.28	16.3	17.5	10.9	
647371.125	3218.375	1536	0.024	0.42	0.45	0.28	6.6	7.1	4.4	
647371.125	3218.375	1537	0.024	0.42	0.45	0.28	2.3	2.5	1.6	
647320.813	3218.250	1538	0.022	0.42	0.46	0.28	2.1	2.3	1.4	
647371.125	3218.375	1539	0.022	0.42	0.46	0.28	2.1	2.3	1.4	
647371.125	3218.375	1540	0.022	0.42	0.45	0.28	2.1	2.3	1.4	
647371.125	3218.375	1541	0.024	0.42	0.46	0.29	2.3	2.6	1.6	
647320.813	3218.250	1542	0.024	0.42	0.45	0.29	2.3	2.5	1.6	
647371.125	3218.375	1543	0.026	0.42	0.46	0.30	2.7	3.0	1.9	
647371.125	3218.375	1544	0.026	0.42	0.46	0.31	23.9	26.2	17.6	
647371.125	3218.375	1545	0.040	0.42	0.46	0.30	21.0	23.0	15.0	
647320.813	3218.250	1546	0.024	0.42	0.46	0.30	12.6	13.6	9.0	
647371.125	3218.375	1547	0.024	0.42	0.46	0.30	12.6	13.6	9.0	
647371.125	3218.375	1548	0.026	0.42	0.47	0.31	7.7	8.6	5.7	
647371.125	3218.375	1549	0.024	0.43	0.47	0.31	6.7	7.4	4.9	
647320.813	3218.250	1550	0.024	0.43	0.47	0.32	4.3	4.7	3.2	
647371.125	3218.375	1551	0.024	0.43	0.47	0.32	6.7	7.4	5.0	
647371.125	3218.375	1552	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	1553	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
544290.250	2985.815	1554	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
284109.250	2376.184	1555	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
55429.438	1205.150	1556	0.005	0.51	0.51	0.35	1.1	1.1	0.7	
36491.250	1055.072	1557	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
422944.250	2835.782	1558	0.005	0.51	0.51	0.35	1.1	1.1	0.7	

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647773.438	3219.375	1559	0.005	0.50	0.51	0.35	1.6	1.7	1.1	
647748.250	3219.313	1560	0.005	0.50	0.51	0.34	1.6	1.7	1.1	
647773.438	3219.375	1561	0.005	0.50	0.51	0.34	1.0	1.1	0.7	
647748.250	3219.313	1562	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647773.438	3219.375	1563	0.005	0.50	0.51	0.33	1.6	1.7	1.1	
647748.250	3219.313	1564	0.005	0.49	0.50	0.33	1.0	1.0	0.7	
647773.438	3219.375	1565	0.005	0.49	0.50	0.32	0.6	0.6	0.4	
647748.250	3219.313	1566	0.004	0.49	0.50	0.32	0.5	0.5	0.3	
647773.438	3219.375	1567	0.005	0.49	0.50	0.32	0.6	0.6	0.4	
647748.250	3219.313	1568	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647748.250	3219.313	1569	0.006	0.48	0.50	0.31	1.6	1.6	1.0	
647773.438	3219.375	1570	0.005	0.48	0.50	0.31	2.1	2.2	1.4	
647773.438	3219.375	1571	0.005	0.49	0.50	0.31	3.1	3.1	1.9	
647773.438	3219.375	1572	0.005	0.49	0.50	0.30	2.2	2.2	1.3	
647723.125	3219.250	1573	0.004	0.49	0.50	0.30	2.4	2.5	1.5	
647773.438	3219.375	1574	0.005	0.49	0.49	0.30	4.0	4.0	2.4	
647773.438	3219.375	1575	0.005	0.48	0.49	0.29	3.0	3.1	1.8	
647773.438	3219.375	1576	0.005	0.48	0.49	0.29	1.6	1.6	0.9	
647723.125	3219.250	1577	0.004	0.48	0.49	0.29	0.8	0.8	0.5	
647773.438	3219.375	1578	0.005	0.48	0.48	0.30	1.0	1.0	0.6	
647773.438	3219.375	1579	0.005	0.48	0.48	0.30	2.1	2.1	1.3	
647773.438	3219.375	1580	0.005	0.47	0.48	0.29	1.0	1.0	0.6	
647723.125	3219.250	1581	0.005	0.47	0.48	0.29	0.5	0.6	0.3	
647773.438	3219.375	1582	0.004	0.47	0.48	0.29	0.4	0.4	0.3	
647773.438	3219.375	1583	0.005	0.47	0.48	0.28	0.5	0.6	0.3	
647773.438	3219.375	1584	0.004	0.47	0.48	0.28	0.4	0.4	0.3	
647723.125	3219.250	1585	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647773.438	3219.375	1586	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647773.438	3219.375	1587	0.005	0.46	0.48	0.28	0.5	0.6	0.3	
647773.438	3219.375	1588	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647723.125	3219.250	1589	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647773.438	3219.375	1590	0.005	0.45	0.47	0.28	0.5	0.5	0.3	
647773.438	3219.375	1591	0.004	0.45	0.47	0.28	0.4	0.4	0.3	
647773.438	3219.375	1592	0.004	0.45	0.48	0.29	0.4	0.4	0.3	
647723.125	3219.250	1593	0.004	0.45	0.48	0.29	0.4	0.4	0.3	
647773.438	3219.375	1594	0.004	0.45	0.48	0.29	0.7	0.8	0.5	
647773.438	3219.375	1595	0.004	0.44	0.47	0.28	0.7	0.8	0.5	
647773.438	3219.375	1596	0.004	0.44	0.47	0.28	0.7	0.8	0.5	
647723.125	3219.250	1597	0.004	0.44	0.47	0.28	1.2	1.2	0.7	
647773.438	3219.375	1598	0.015	0.44	0.47	0.28	8.2	8.8	5.2	
647773.438	3219.375	1599	0.015	0.44	0.47	0.28	4.3	4.6	2.7	
647773.438	3219.375	1600	0.015	0.44	0.47	0.28	2.7	2.9	1.7	
647723.125	3219.250	1601	0.015	0.43	0.47	0.28	2.7	2.9	1.7	
647773.438	3219.375	1602	0.004	0.43	0.47	0.28	0.4	0.4	0.3	
647773.438	3219.375	1603	0.004	0.43	0.47	0.28	0.4	0.4	0.3	
647773.438	3219.37[illegible]	1604	0.015	0.43	0.47	0.27	4.2	4.6	2.6	
647723.125	3219.250	1605	0.004	0.43	0.46	0.28	1.5	1.6	1.0	
647773.438	3219.375	1606	0.004	0.43	0.46	0.27	1.1	1.2	0.7	
647773.438	3219.375	1607	0.015	0.43	0.46	0.27	1.5	1.6	0.9	
647773.438	3219.375	1608	0.040	0.31	0.32	0.19	2.9	3.0	1.8	
647723.125	3219.250	1609	0.028	0.43	0.45	0.27	5.0	5.2	3.1	
647773.438	3219.375	1610	0.040	0.43	0.45	0.27	4.0	4.2	2.5	

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647773.438	3219.375	1611	0.028	0.43	0.45	0.27	5.0	5.2	3.1	
647773.438	3219.375	1612	0.028	0.42	0.45	0.27	4.9	5.2	3.1	
647723.125	3219.250	1613	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647773.438	3219.375	1614	0.024	0.43	0.45	0.28	2.4	2.5	1.6	
647773.438	3219.375	1615	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647773.438	3219.375	1616	0.040	0.42	0.45	0.27	15.0	16.0	9.6	
647723.125	3219.250	1617	0.040	0.42	0.45	0.27	15.0	16.0	9.6	
647773.438	3219.375	1618	0.024	0.42	0.45	0.28	9.0	9.6	6.0	
647773.438	3219.375	1619	0.024	0.42	0.45	0.28	4.2	4.5	2.8	
647773.438	3219.375	1620	0.024	0.42	0.45	0.28	9.0	9.6	6.0	
647723.125	3219.250	1621	0.024	0.42	0.45	0.28	2.3	2.5	1.6	
647773.438	3219.375	1622	0.024	0.42	0.46	0.28	2.3	2.6	1.6	
647773.438	3219.375	1623	0.022	0.42	0.46	0.28	2.1	2.3	1.4	
647773.438	3219.375	1624	0.022	0.43	0.46	0.28	2.2	2.3	1.4	
647723.125	3219.250	1625	0.024	0.43	0.47	0.29	2.4	2.6	1.6	
647773.438	3219.375	1626	0.024	0.43	0.47	0.30	2.4	2.6	1.7	
647773.438	3219.375	1627	0.024	0.42	0.46	0.29	16.3	17.6	11.2	
647773.438	3219.375	1628	0.024	0.42	0.46	0.30	12.6	13.6	9.0	
647723.125	3219.250	1629	0.024	0.42	0.46	0.30	12.6	13.6	9.0	
647773.438	3219.375	1630	0.040	0.42	0.46	0.30	27.1	29.7	19.4	
647773.438	3219.375	1631	0.024	0.43	0.47	0.31	6.7	7.4	4.9	
647773.438	3219.375	1632	0.024	0.43	0.47	0.31	4.3	4.7	3.1	
647723.125	3219.250	1633	0.024	0.43	0.47	0.31	6.7	7.4	4.9	
647773.438	3219.375	1634	0.024	0.43	0.48	0.32	9.2	10.3	6.8	
647773.438	3219.375	1635	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647773.438	3219.375	1636	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647723.125	3219.250	1637	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	1638	0.001	0.43	0.49	0.33	0.2	0.2	0.1	
613870.625	3062.457	1639	0.024	0.43	0.49	0.33	4.3	4.9	3.3	
361460.156	2583.850	1640	0.024	0.43	0.49	0.34	4.3	4.9	3.4	
74397.578	1451.328	1641	0.024	0.44	0.50	0.34	4.4	5.0	3.4	
646503.688	3216.220	1642	0.004	0.50	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	1643	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	1644	0.005	0.50	0.51	0.34	2.2	2.3	1.5	
647371.125	3218.375	1645	0.005	0.50	0.51	0.34	1.6	1.7	1.1	
647345.938	3218.313	1646	0.005	0.50	0.51	0.33	1.0	1.1	0.7	
647371.125	3218.375	1647	0.005	0.50	0.51	0.33	1.6	1.7	1.1	
647345.938	3218.313	1648	0.005	0.49	0.50	0.33	0.6	0.6	0.4	
647371.125	3218.375	1649	0.005	0.49	0.51	0.32	1.0	1.1	0.7	
647345.938	3218.313	1650	0.005	0.49	0.50	0.32	1.0	1.0	0.7	
647371.125	3218.375	1651	0.005	0.49	0.50	0.32	1.6	1.6	1.0	
647345.938	3218.313	1652	0.005	0.49	0.50	0.31	3.1	3.1	1.9	
647345.938	3218.313	1653	0.005	0.49	0.50	0.31	1.6	1.6	1.0	
647371.125	3218.375	1654	0.004	0.49	0.50	0.31	0.8	0.8	0.5	
647371.125	3218.375	1655	0.004	0.49	0.50	0.30	2.4	2.5	1.5	
647371.125	3218.375	1656	0.004	0.49	0.50	0.30	1.3	1.3	0.8	
647320.813	3218.250	1657	0.004	0.49	0.50	0.30	1.3	1.3	0.8	
647371.125	3218.375	1658	0.005	0.49	0.49	0.30	1.6	1.6	1.0	
647371.125	3218.375	1659	0.005	0.48	0.49	0.29	2.1	2.2	1.3	
647371.125	3218.375	1660	0.005	0.48	0.49	0.29	3.0	3.1	1.8	
647320.813	3218.250	1661	0.005	0.48	0.49	0.29	1.6	1.6	0.9	
647371.125	3218.375	1662	0.005	0.48	0.49	0.30	1.6	1.6	1.0	

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647371.125	3218.375	1663	0.005	0.48	0.48	0.30	2.1	2.1	1.3	
647371.125	3218.375	1664	0.005	0.48	0.48	0.30	1.0	1.0	0.6	
647320.813	3218.250	1665	0.005	0.47	0.48	0.30	1.5	1.6	1.0	
647371.125	3218.375	1666	0.005	0.47	0.48	0.29	2.1	2.1	1.3	
647371.125	3218.375	1667	0.004	0.47	0.48	0.29	0.8	0.8	0.5	
647371.125	3218.375	1668	0.004	0.47	0.48	0.28	0.8	0.8	0.5	
647320.813	3218.250	1669	0.004	0.47	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	1670	0.004	0.46	0.48	0.28	0.8	0.8	0.5	
647371.125	3218.375	1671	0.005	0.46	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1672	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647320.813	3218.250	1673	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647371.125	3218.375	1674	0.005	0.46	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1675	0.005	0.45	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1676	0.004	0.45	0.47	0.28	0.4	0.4	0.3	
647320.813	3218.250	1677	0.004	0.45	0.48	0.29	0.4	0.4	0.3	
647371.125	3218.375	1678	0.004	0.45	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	1679	0.004	0.45	0.48	0.29	0.7	0.8	0.5	
647371.125	3218.375	1680	0.015	0.45	0.47	0.28	4.4	4.6	2.7	
647320.813	3218.250	1681	0.015	0.44	0.47	0.27	8.2	8.8	5.1	
647371.125	3218.375	1682	0.015	0.44	0.47	0.28	8.2	8.8	5.2	
647371.125	3218.375	1683	0.004	0.44	0.48	0.28	1.2	1.3	0.7	
647371.125	3218.375	1684	0.015	0.44	0.48	0.28	2.7	3.0	1.7	
647320.813	3218.250	1685	0.015	0.44	0.48	0.28	2.7	3.0	1.7	
647371.125	3218.375	1686	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647371.125	3218.375	1687	0.004	0.43	0.47	0.27	0.4	0.4	0.3	
647371.125	3218.375	1688	0.004	0.43	0.47	0.28	0.4	0.4	0.3	
647320.813	3218.250	1689	0.004	0.43	0.46	0.27	0.4	0.4	0.3	
647371.125	3218.375	1690	0.004	0.43	0.46	0.27	0.7	0.8	0.4	
647371.125	3218.375	1691	0.015	0.43	0.46	0.27	2.7	2.9	1.7	
647371.125	3218.375	1692	0.040	0.31	0.32	0.18	5.2	5.3	3.0	
647320.813	3218.250	1693	0.030	0.43	0.45	0.26	3.0	3.1	1.8	
647371.125	3218.375	1694	0.028	0.43	0.45	0.26	2.8	2.9	1.7	
647371.125	3218.375	1695	0.028	0.43	0.45	0.26	2.8	2.9	1.7	
647371.125	3218.375	1696	0.028	0.43	0.45	0.26	5.0	5.2	3.0	
647320.813	3218.250	1697	0.009	0.42	0.45	0.26	0.9	0.9	0.5	
647371.125	3218.375	1698	0.009	0.42	0.45	0.26	0.9	0.9	0.5	
647371.125	3218.375	1699	0.009	0.42	0.45	0.27	2.5	2.6	1.6	
647371.125	3218.375	1700	0.024	0.42	0.45	0.26	6.6	7.1	4.1	
647320.813	3218.250	1701	0.040	0.42	0.45	0.26	27.1	29.1	16.8	
647371.125	3218.375	1702	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647371.125	3218.375	1703	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647371.125	3218.375	1704	0.024	0.42	0.45	0.28	6.6	7.1	4.4	
647320.813	3218.250	1705	0.024	0.42	0.45	0.27	4.2	4.5	2.7	
647371.125	3218.375	1706	0.024	0.42	0.45	0.28	6.6	7.1	4.4	
647371.125	3218.375	1707	0.024	0.42	0.46	0.27	4.2	4.6	2.7	
647371.125	3218.375	1708	0.024	0.43	0.46	0.29	2.4	2.6	1.6	
647320.813	3218.250	1709	0.022	0.43	0.46	0.28	3.9	4.2	2.6	
647371.125	3218.375	1710	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647371.125	3218.375	1711	0.040	0.43	0.46	0.29	15.3	16.4	10.3	
647371.125	3218.375	1712	0.024	0.42	0.46	0.29	12.6	13.8	8.7	
647320.813	3218.250	1713	0.024	0.42	0.46	0.30	4.2	4.6	3.0	
647371.125	3218.375	1714	0.024	0.42	0.47	0.30	12.6	14.1	9.0	

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647371.125	3218.375	1715	0.024	0.43	0.47	0.31	6.7	7.4	4.9	
647371.125	3218.375	1716	0.024	0.43	0.47	0.31	4.3	4.7	3.1	
647320.813	3218.250	1717	0.024	0.43	0.47	0.32	4.3	4.7	3.2	
647371.125	3218.375	1718	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647371.125	3218.375	1719	0.024	0.43	0.48	0.32	9.2	10.3	6.8	
647371.125	3218.375	1720	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647320.813	3218.250	1721	0.024	0.43	0.49	0.32	4.3	4.9	3.2	
647371.125	3218.375	1722	0.024	0.43	0.49	0.33	4.3	4.9	3.3	
647371.125	3218.375	1723	0.024	0.43	0.49	0.33	6.7	7.7	5.2	
647371.125	3218.375	1724	0.024	0.44	0.50	0.33	4.4	5.0	3.3	
634244.250	3132.848	1725	0.024	0.44	0.50	0.34	4.4	5.0	3.4	
222807.156	2334.245	1726	0.004	0.51	0.51	0.35	0.5	0.5	0.3	
401941.406	2686.777	1727	0.024	0.44	0.50	0.34	6.9	7.8	5.3	
66749.875	1135.245	1728	0.024	0.44	0.50	0.35	4.4	5.0	3.5	
601951.000	3045.967	1729	0.004	0.51	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	1730	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647371.125	3218.375	1731	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	1732	0.004	0.50	0.51	0.34	2.5	2.5	1.7	
647371.125	3218.375	1733	0.005	0.50	0.51	0.34	3.1	3.2	2.1	
647345.938	3218.313	1734	0.004	0.50	0.51	0.34	1.8	1.8	1.2	
647371.125	3218.375	1735	0.005	0.50	0.51	0.33	3.1	3.2	2.1	
647345.938	3218.313	1736	0.005	0.49	0.50	0.33	1.6	1.6	1.1	
647371.125	3218.375	1737	0.005	0.49	0.51	0.33	1.0	1.1	0.7	
647345.938	3218.313	1738	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	1739	0.005	0.49	0.50	0.32	1.6	1.6	1.0	
647345.938	3218.313	1740	0.005	0.49	0.50	0.32	2.2	2.2	1.4	
647345.938	3218.313	1741	0.004	0.49	0.50	0.31	1.3	1.3	0.8	
647371.125	3218.375	1742	0.004	0.49	0.50	0.31	0.8	0.8	0.5	
647371.125	3218.375	1743	0.004	0.49	0.50	0.30	2.4	2.5	1.5	
647371.125	3218.375	1744	0.004	0.49	0.50	0.30	1.3	1.3	0.8	
647320.813	3218.250	1745	0.004	0.49	0.50	0.30	0.8	0.8	0.5	
647371.125	3218.375	1746	0.004	0.49	0.49	0.30	0.8	0.8	0.5	
647371.125	3218.375	1747	0.004	0.49	0.49	0.30	0.5	0.5	0.3	
647371.125	3218.375	1748	0.005	0.48	0.49	0.29	2.1	2.2	1.3	
647320.813	3218.250	1749	0.005	0.48	0.49	0.29	3.0	3.1	1.8	
647371.125	3218.375	1750	0.005	0.48	0.49	0.29	1.6	1.6	0.9	
647371.125	3218.375	1751	0.005	0.48	0.48	0.29	1.6	1.6	0.9	
647371.125	3218.375	1752	0.005	0.48	0.48	0.29	2.1	2.1	1.3	
647320.813	3218.250	1753	0.004	0.48	0.48	0.30	2.4	2.4	1.5	
647371.125	3218.375	1754	0.005	0.47	0.48	0.29	2.9	3.0	1.8	
647371.125	3218.375	1755	0.004	0.47	0.48	0.29	1.2	1.3	0.8	
647371.125	3218.375	1756	0.004	0.47	0.48	0.28	0.8	0.8	0.5	
647320.813	3218.250	1757	0.004	0.47	0.48	0.29	0.4	0.4	0.3	
647371.125	3218.375	1758	0.004	0.47	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	1759	0.004	0.47	0.49	0.29	0.4	0.5	0.3	
647371.125	3218.375	1760	0.004	0.46	0.48	0.28	0.8	0.8	0.5	
647320.813	3218.250	1761	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647371.125	3218.375	1762	0.005	0.46	0.48	0.28	1.0	1.0	0.6	
647371.125	3218.375	1763	0.005	0.46	0.48	0.28	0.5	0.6	0.3	
647371.125	3218.375	1764	0.004	0.46	0.48	0.28	0.4	0.4	0.3	
647320.813	3218.250	1765	0.004	0.45	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	1766	0.004	0.45	0.48	0.28	0.4	0.4	0.3	

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647371.125	3218.375	1767	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647371.125	3218.375	1768	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647320.813	3218.250	1769	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647371.125	3218.375	1770	0.004	0.44	0.48	0.27	0.7	0.8	0.4	
647371.125	3218.375	1771	0.004	0.44	0.48	0.28	0.7	0.8	0.5	
647371.125	3218.375	1772	0.004	0.44	0.48	0.28	0.4	0.4	0.3	
647320.813	3218.250	1773	0.004	0.44	0.48	0.27	0.4	0.4	0.3	
647371.125	3218.375	1774	0.004	0.43	0.47	0.27	0.4	0.4	0.3	
647371.125	3218.375	1775	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647371.125	3218.375	1776	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647320.813	3218.250	1777	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647371.125	3218.375	1778	0.004	0.43	0.46	0.27	1.5	1.6	1.0	
647371.125	3218.375	1779	0.015	0.43	0.46	0.27	2.7	2.9	1.7	
647371.125	3218.375	1780	0.030	0.43	0.46	0.27	8.4	9.0	5.3	
647320.813	3218.250	1781	0.030	0.43	0.45	0.27	5.4	5.6	3.4	
647371.125	3218.375	1782	0.030	0.43	0.45	0.26	5.4	5.6	3.2	
647371.125	3218.375	1783	0.030	0.43	0.45	0.26	3.0	3.1	1.8	
647371.125	3218.375	1784	0.030	0.43	0.45	0.26	5.4	5.6	3.2	
647320.813	3218.250	1785	0.045	0.43	0.45	0.26	12.6	13.2	7.6	
647371.125	3218.375	1786	0.009	0.42	0.45	0.26	2.5	2.6	1.5	
647371.125	3218.375	1787	0.009	0.42	0.45	0.26	2.5	2.6	1.5	
647371.125	3218.375	1788	0.009	0.42	0.45	0.26	3.4	3.6	2.1	
647320.813	3218.250	1789	0.040	0.42	0.45	0.26	27.1	29.1	16.8	
647371.125	3218.375	1790	0.040	0.42	0.45	0.26	11.0	11.8	6.8	
647371.125	3218.375	1791	0.024	0.42	0.45	0.27	6.6	7.1	4.2	
647371.125	3218.375	1792	0.024	0.42	0.45	0.27	9.0	9.6	5.8	
647320.813	3218.250	1793	0.024	0.42	0.45	0.27	9.0	9.6	5.8	
647371.125	3218.375	1794	0.024	0.42	0.45	0.27	2.3	2.5	1.5	
647371.125	3218.375	1795	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647371.125	3218.375	1796	0.024	0.43	0.46	0.27	6.7	7.2	4.2	
647320.813	3218.250	1797	0.022	0.43	0.46	0.28	6.2	6.6	4.0	
647371.125	3218.375	1798	0.022	0.43	0.46	0.28	6.2	6.6	4.0	
647371.125	3218.375	1799	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647371.125	3218.375	1800	0.024	0.43	0.46	0.29	2.4	2.6	1.6	
647320.813	3218.250	1801	0.024	0.43	0.46	0.29	6.7	7.2	4.5	
647371.125	3218.375	1802	0.024	0.42	0.47	0.30	4.2	4.7	3.0	
647371.125	3218.375	1803	0.040	0.43	0.47	0.30	21.5	23.5	15.0	
647371.125	3218.375	1804	0.040	0.43	0.47	0.31	4.0	4.4	2.9	
647320.813	3218.250	1805	0.024	0.43	0.47	0.31	4.3	4.7	3.1	
647371.125	3218.375	1806	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647371.125	3218.375	1807	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647371.125	3218.375	1808	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647320.813	3218.250	1809	0.024	0.43	0.49	0.32	4.3	4.9	3.2	
647371.125	3218.375	1810	0.024	0.43	0.49	0.33	6.7	7.7	5.2	
647371.125	3218.375	1811	0.024	0.44	0.49	0.34	6.9	7.7	5.3	
647371.125	3218.375	1812	0.024	0.44	0.50	0.34	4.4	5.0	3.4	
647320.813	3218.250	1813	0.024	0.44	0.50	0.33	6.9	7.8	5.2	
647371.125	3218.375	1814	0.024	0.44	0.50	0.34	9.4	10.7	7.3	
503388.969	2902.185	1815	0.024	0.44	0.51	0.34	2.4	2.8	1.9	
67474.063	1284.509	1816	0.004	0.51	0.51	0.35	0.5	0.5	0.3	
2014.031	240.793	1817	0.024	0.44	0.51	0.35	4.4	5.1	3.5	
463490.438	2873.029	1818	0.004	0.51	0.51	0.35	1.3	1.3	0.9	

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647773.438	3219.375	1819	0.004	0.51	0.51	0.35	1.8	1.8	1.2	
647748.250	3219.313	1820	0.004	0.50	0.51	0.35	2.5	2.5	1.7	
647773.438	3219.375	1821	0.004	0.50	0.51	0.35	3.2	3.3	2.3	
647748.250	3219.313	1822	0.004	0.50	0.51	0.35	2.5	2.5	1.7	
647773.438	3219.375	1823	0.004	0.50	0.51	0.34	2.5	2.5	1.7	
647748.250	3219.313	1824	0.004	0.50	0.51	0.34	0.8	0.8	0.6	
647773.438	3219.375	1825	0.004	0.50	0.51	0.34	2.5	2.5	1.7	
647748.250	3219.313	1826	0.005	0.49	0.50	0.33	1.6	1.6	1.1	
647773.438	3219.375	1827	0.005	0.49	0.51	0.33	1.0	1.1	0.7	
647748.250	3219.313	1828	0.005	0.49	0.51	0.32	0.6	0.6	0.4	
647773.438	3219.375	1829	0.005	0.49	0.51	0.32	1.0	1.1	0.7	
647748.250	3219.313	1830	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647748.250	3219.313	1831	0.005	0.49	0.50	0.31	0.6	0.6	0.4	
647773.438	3219.375	1832	0.005	0.48	0.50	0.31	2.1	2.2	1.4	
647773.438	3219.375	1833	0.004	0.49	0.50	0.31	1.3	1.3	0.8	
647773.438	3219.375	1834	0.004	0.49	0.50	0.30	3.2	3.2	1.9	
647723.125	3219.250	1835	0.004	0.49	0.50	0.30	2.4	2.5	1.5	
647773.438	3219.375	1836	0.004	0.49	0.50	0.30	3.2	3.2	1.9	
647773.438	3219.375	1837	0.004	0.49	0.49	0.30	3.2	3.2	1.9	
647773.438	3219.375	1838	0.004	0.49	0.49	0.30	1.7	1.7	1.1	
647723.125	3219.250	1839	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647773.438	3219.375	1840	0.005	0.48	0.49	0.29	1.0	1.0	0.6	
647773.438	3219.375	1841	0.005	0.48	0.49	0.29	0.6	0.6	0.3	
647773.438	3219.375	1842	0.005	0.48	0.48	0.29	2.1	2.1	1.3	
647723.125	3219.250	1843	0.005	0.48	0.48	0.28	2.1	2.1	1.2	
647773.438	3219.375	1844	0.004	0.48	0.48	0.29	1.7	1.7	1.0	
647773.438	3219.375	1845	0.004	0.48	0.48	0.29	1.7	1.7	1.0	
647773.438	3219.375	1846	0.004	0.47	0.48	0.29	0.8	0.8	0.5	
647723.125	3219.250	1847	0.004	0.47	0.48	0.28	0.4	0.4	0.3	
647773.438	3219.375	1848	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647773.438	3219.375	1849	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647773.438	3219.375	1850	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647723.125	3219.250	1851	0.005	0.47	0.49	0.28	0.5	0.6	0.3	
647773.438	3219.375	1852	0.005	0.46	0.49	0.27	1.0	1.0	0.6	
647773.438	3219.375	1853	0.005	0.46	0.48	0.28	0.5	0.6	0.3	
647773.438	3219.375	1854	0.005	0.46	0.49	0.28	0.5	0.6	0.3	
647723.125	3219.250	1855	0.004	0.45	0.49	0.28	0.4	0.5	0.3	
647773.438	3219.375	1856	0.004	0.44	0.48	0.28	0.7	0.8	0.5	
647773.438	3219.375	1857	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647773.438	3219.375	1858	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647723.125	3219.250	1859	0.004	0.45	0.48	0.28	0.4	0.4	0.3	
647773.438	3219.375	1860	0.004	0.45	0.48	0.28	0.7	0.8	0.5	
647773.438	3219.375	1861	0.004	0.44	0.48	0.28	0.7	0.8	0.5	
647773.438	3219.375	1862	0.004	0.44	0.48	0.28	0.4	0.4	0.3	
647723.125	3219.250	1863	0.015	0.44	0.48	0.28	1.5	1.7	1.0	
647773.438	3219.375	1864	0.004	0.43	0.48	0.27	0.4	0.4	0.3	
647773.438	3219.375	1865	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647773.438	3219.375	1866	0.004	0.43	0.47	0.27	0.7	0.8	0.4	
647723.125	3219.250	1867	0.004	0.43	0.47	0.27	1.1	1.2	0.7	
647773.438	3219.375	1868	0.015	0.43	0.46	0.27	2.7	2.9	1.7	
647773.438	3219.375	1869	0.030	0.43	0.46	0.27	8.4	9.0	5.3	
647773.438	3219.375	1870	0.030	0.43	0.46	0.27	5.4	5.7	3.4	

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647723.125	3219.250	1871	0.004	0.43	0.45	0.26	0.4	0.4	0.2	
647773.438	3219.375	1872	0.030	0.43	0.45	0.26	3.0	3.1	1.8	
647773.438	3219.375	1873	0.030	0.43	0.45	0.26	3.0	3.1	1.8	
647773.438	3219.375	1874	0.030	0.43	0.45	0.26	3.0	3.1	1.8	
647723.125	3219.250	1875	0.045	0.43	0.44	0.26	4.5	4.6	2.7	
647773.438	3219.375	1876	0.045	0.43	0.44	0.26	17.2	17.6	10.4	
647773.438	3219.375	1877	0.009	0.43	0.44	0.27	1.6	1.6	1.0	
647773.438	3219.375	1878	0.040	0.42	0.44	0.26	15.0	15.7	9.3	
647723.125	3219.250	1879	0.024	0.42	0.44	0.26	12.6	13.2	7.8	
647773.438	3219.375	1880	0.040	0.42	0.45	0.26	15.0	16.0	9.3	
647773.438	3219.375	1881	0.024	0.42	0.45	0.26	4.2	4.5	2.6	
647773.438	3219.375	1882	0.024	0.42	0.45	0.26	2.3	2.5	1.4	
647723.125	3219.250	1883	0.024	0.42	0.45	0.26	9.0	9.6	5.6	
647773.438	3219.375	1884	0.024	0.42	0.45	0.27	4.2	4.5	2.7	
647773.438	3219.375	1885	0.024	0.43	0.46	0.27	2.4	2.6	1.5	
647773.438	3219.375	1886	0.024	0.43	0.46	0.27	6.7	7.2	4.2	
647723.125	3219.250	1887	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647773.438	3219.375	1888	0.024	0.43	0.46	0.27	2.4	2.6	1.5	
647773.438	3219.375	1889	0.022	0.43	0.46	0.28	2.2	2.3	1.4	
647773.438	3219.375	1890	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647723.125	3219.250	1891	0.024	0.43	0.46	0.29	9.2	9.8	6.2	
647773.438	3219.375	1892	0.024	0.43	0.47	0.29	4.3	4.7	2.9	
647773.438	3219.375	1893	0.040	0.44	0.47	0.29	11.5	12.3	7.6	
647773.438	3219.375	1894	0.040	0.44	0.47	0.30	15.7	16.8	10.7	
647723.125	3219.250	1895	0.040	0.43	0.48	0.30	15.3	17.1	10.7	
647773.438	3219.375	1896	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647773.438	3219.375	1897	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647773.438	3219.375	1898	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647723.125	3219.250	1899	0.024	0.43	0.49	0.31	6.7	7.7	4.9	
647773.438	3219.375	1900	0.024	0.43	0.49	0.32	6.7	7.7	5.0	
647773.438	3219.375	1901	0.024	0.44	0.49	0.32	9.4	10.5	6.8	
647773.438	3219.375	1902	0.024	0.44	0.50	0.33	6.9	7.8	5.2	
647723.125	3219.250	1903	0.024	0.44	0.50	0.33	4.4	5.0	3.3	
647773.438	3219.375	1904	0.024	0.44	0.50	0.34	13.2	15.0	10.2	
647773.438	3219.375	1905	0.024	0.44	0.51	0.34	4.4	5.1	3.4	
180521.250	2136.662	1906	0.024	0.44	0.51	0.35	2.4	2.8	1.9	
1516.922	193.148	1907	0.001	0.51	0.51	0.35	0.5	0.5	0.3	
293364.188	2643.562	1908	0.004	0.51	0.51	0.36	1.8	1.8	1.3	
647345.938	3218.313	1909	0.004	0.51	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	1910	0.004	0.51	0.52	0.36	1.3	1.4	0.9	
647345.938	3218.313	1911	0.004	0.50	0.51	0.35	0.5	0.5	0.3	
647371.125	3218.375	1912	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	1913	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	1914	0.004	0.50	0.51	0.35	1.8	1.8	1.2	
647345.938	3218.313	1915	0.004	0.50	0.51	0.34	2.5	2.5	1.7	
647371.125	3218.375	1916	0.004	0.50	0.51	0.34	4.1	4.1	2.8	
647345.938	3218.313	1917	0.004	0.49	0.51	0.33	1.3	1.3	0.9	
647371.125	3218.375	1918	0.004	0.49	0.51	0.33	0.8	0.8	0.5	
647345.938	3218.313	1919	0.004	0.49	0.51	0.33	0.8	0.8	0.5	
647371.125	3218.375	1920	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647345.938	3218.313	1921	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647345.938	3218.313	1922	0.004	0.49	0.50	0.31	1.3	1.3	0.8	

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647371.125	3218.375	1923	0.005	0.49	0.50	0.31	1.6	1.6	1.0	
647371.125	3218.375	1924	0.005	0.49	0.50	0.31	2.2	2.2	1.4	
647371.125	3218.375	1925	0.005	0.49	0.50	0.30	2.2	2.2	1.3	
647320.813	3218.250	1926	0.004	0.49	0.50	0.30	1.3	1.3	0.8	
647371.125	3218.375	1927	0.004	0.49	0.50	0.30	1.7	1.8	1.1	
647371.125	3218.375	1928	0.004	0.49	0.49	0.30	2.4	2.4	1.5	
647371.125	3218.375	1929	0.004	0.49	0.49	0.30	1.7	1.7	1.1	
647320.813	3218.250	1930	0.004	0.49	0.49	0.30	0.8	0.8	0.5	
647371.125	3218.375	1931	0.005	0.49	0.49	0.30	0.6	0.6	0.3	
647371.125	3218.375	1932	0.004	0.48	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	1933	0.004	0.48	0.48	0.29	0.8	0.8	0.5	
647320.813	3218.250	1934	0.005	0.48	0.48	0.28	2.1	2.1	1.2	
647371.125	3218.375	1935	0.005	0.48	0.48	0.28	1.0	1.0	0.6	
647371.125	3218.375	1936	0.004	0.48	0.49	0.29	1.3	1.3	0.8	
647371.125	3218.375	1937	0.004	0.48	0.49	0.29	0.8	0.8	0.5	
647320.813	3218.250	1938	0.004	0.48	0.49	0.29	0.4	0.5	0.3	
647371.125	3218.375	1939	0.004	0.47	0.49	0.29	0.4	0.5	0.3	
647371.125	3218.375	1940	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647371.125	3218.375	1941	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647320.813	3218.250	1942	0.004	0.47	0.49	0.28	0.4	0.5	0.3	
647371.125	3218.375	1943	0.005	0.47	0.49	0.28	0.5	0.6	0.3	
647371.125	3218.375	1944	0.005	0.46	0.49	0.27	0.5	0.6	0.3	
647371.125	3218.375	1945	0.005	0.46	0.49	0.28	0.5	0.6	0.3	
647320.813	3218.250	1946	0.004	0.45	0.48	0.27	0.4	0.4	0.3	
647371.125	3218.375	1947	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647371.125	3218.375	1948	0.004	0.44	0.48	0.28	0.7	0.8	0.5	
647371.125	3218.375	1949	0.004	0.45	0.48	0.27	0.4	0.4	0.3	
647320.813	3218.250	1950	0.015	0.45	0.48	0.28	2.8	3.0	1.7	
647371.125	3218.375	1951	0.015	0.45	0.48	0.27	2.8	3.0	1.7	
647371.125	3218.375	1952	0.015	0.45	0.48	0.27	2.8	3.0	1.7	
647371.125	3218.375	1953	0.015	0.45	0.48	0.28	1.6	1.7	1.0	
647320.813	3218.250	1954	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647371.125	3218.375	1955	0.015	0.43	0.48	0.27	1.5	1.7	0.9	
647371.125	3218.375	1956	0.015	0.43	0.47	0.27	1.5	1.6	0.9	
647371.125	3218.375	1957	0.015	0.43	0.47	0.27	4.2	4.6	2.6	
647320.813	3218.250	1958	0.015	0.43	0.47	0.26	5.7	6.3	3.5	
647371.125	3218.375	1959	0.004	0.43	0.46	0.26	1.1	1.2	0.7	
647371.125	3218.375	1960	0.004	0.43	0.46	0.26	1.1	1.2	0.7	
647371.125	3218.375	1961	0.004	0.43	0.46	0.26	0.7	0.8	0.4	
647320.813	3218.250	1962	0.004	0.43	0.45	0.26	0.7	0.7	0.4	
647371.125	3218.375	1963	0.004	0.43	0.45	0.26	0.7	0.7	0.4	
647371.125	3218.375	1964	0.030	0.43	0.45	0.25	3.0	3.1	1.7	
647371.125	3218.375	1965	0.030	0.43	0.44	0.25	5.4	5.5	3.1	
647320.813	3218.250	1966	0.030	0.43	0.44	0.25	11.5	11.8	6.7	
647371.125	3218.375	1967	0.045	0.43	0.44	0.25	12.6	12.9	7.4	
647371.125	3218.375	1968	0.009	0.43	0.44	0.25	2.5	2.6	1.5	
647371.125	3218.375	1969	0.009	0.43	0.44	0.26	1.6	1.6	1.0	
647320.813	3218.250	1970	0.009	0.42	0.44	0.25	3.4	3.5	2.0	
647371.125	3218.375	1971	0.009	0.42	0.44	0.26	1.6	1.6	1.0	
647371.125	3218.375	1972	0.001	0.43	0.45	0.26	0.3	0.3	0.2	
647371.125	3218.375	1973	0.024	0.42	0.45	0.25	9.0	9.6	5.3	
647320.813	3218.250	1974	0.040	0.42	0.45	0.26	7.0	7.5	4.3	

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647371.125	3218.375	1975	0.024	0.42	0.45	0.26	4.2	4.5	2.6	
647371.125	3218.375	1976	0.024	0.42	0.45	0.26	6.6	7.1	4.1	
647371.125	3218.375	1977	0.024	0.43	0.46	0.27	9.2	9.8	5.8	
647320.813	3218.250	1978	0.024	0.43	0.46	0.27	4.3	4.6	2.7	
647371.125	3218.375	1979	0.024	0.43	0.46	0.28	12.9	13.8	8.4	
647371.125	3218.375	1980	0.024	0.43	0.47	0.28	12.9	14.1	8.4	
647371.125	3218.375	1981	0.024	0.43	0.46	0.27	9.2	9.8	5.8	
647320.813	3218.250	1982	0.024	0.43	0.46	0.28	2.4	2.6	1.6	
647371.125	3218.375	1983	0.024	0.43	0.47	0.28	4.3	4.7	2.8	
647371.125	3218.375	1984	0.024	0.44	0.47	0.29	2.4	2.6	1.6	
647371.125	3218.375	1985	0.024	0.44	0.47	0.29	4.4	4.7	2.9	
647320.813	3218.250	1986	0.024	0.44	0.47	0.31	4.4	4.7	3.1	
647371.125	3218.375	1987	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647371.125	3218.375	1988	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647371.125	3218.375	1989	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647320.813	3218.250	1990	0.024	0.44	0.49	0.32	6.9	7.7	5.0	
647371.125	3218.375	1991	0.024	0.44	0.49	0.32	9.4	10.5	6.8	
647371.125	3218.375	1992	0.024	0.45	0.49	0.33	13.5	14.7	9.9	
647371.125	3218.375	1993	0.024	0.45	0.50	0.33	9.6	10.7	7.1	
647320.813	3218.250	1994	0.024	0.45	0.50	0.33	7.1	7.8	5.2	
647371.125	3218.375	1995	0.024	0.45	0.51	0.33	7.1	8.0	5.2	
647371.125	3218.375	1996	0.024	0.45	0.51	0.34	4.5	5.1	3.4	
422907.969	2663.246	1997	0.024	0.45	0.51	0.34	2.5	2.8	1.9	
644632.750	3175.045	1998	0.005	0.51	0.51	0.36	1.1	1.1	0.7	
647345.938	3218.313	1999	0.005	0.51	0.51	0.36	1.7	1.7	1.2	
647371.125	3218.375	2000	0.005	0.50	0.51	0.35	1.6	1.7	1.1	
647345.938	3218.313	2001	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	2002	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	2003	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	2004	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	2005	0.004	0.50	0.51	0.35	2.5	2.5	1.7	
647371.125	3218.375	2006	0.004	0.50	0.51	0.34	1.8	1.8	1.2	
647345.938	3218.313	2007	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2008	0.004	0.49	0.51	0.33	1.3	1.3	0.9	
647345.938	3218.313	2009	0.004	0.49	0.51	0.33	0.8	0.8	0.5	
647371.125	3218.375	2010	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647345.938	3218.313	2011	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647345.938	3218.313	2012	0.004	0.49	0.51	0.32	1.7	1.8	1.1	
647371.125	3218.375	2013	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647371.125	3218.375	2014	0.004	0.49	0.50	0.31	0.5	0.5	0.3	
647371.125	3218.375	2015	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647320.813	3218.250	2016	0.004	0.49	0.50	0.31	3.2	3.2	2.0	
647371.125	3218.375	2017	0.004	0.49	0.50	0.31	2.4	2.5	1.5	
647371.125	3218.375	2018	0.004	0.49	0.49	0.30	1.7	1.7	1.1	
647371.125	3218.375	2019	0.004	0.49	0.49	0.30	1.7	1.7	1.1	
647320.813	3218.250	2020	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	2021	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	2022	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647371.125	3218.375	2023	0.005	0.48	0.49	0.28	0.6	0.6	0.3	
647320.813	3218.250	2024	0.005	0.48	0.49	0.28	1.0	1.0	0.6	
647371.125	3218.375	2025	0.004	0.48	0.49	0.28	0.4	0.5	0.3	
647371.125	3218.375	2026	0.004	0.48	0.49	0.28	0.8	0.8	0.5	

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647371.125	3218.375	2027	0.004	0.48	0.49	0.29	0.4	0.5	0.3	
647320.813	3218.250	2028	0.004	0.48	0.49	0.29	0.4	0.5	0.3	
647371.125	3218.375	2029	0.004	0.48	0.49	0.29	0.4	0.5	0.3	
647371.125	3218.375	2030	0.004	0.47	0.50	0.29	0.4	0.5	0.3	
647371.125	3218.375	2031	0.004	0.47	0.50	0.28	0.4	0.5	0.3	
647320.813	3218.250	2032	0.004	0.47	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2033	0.005	0.47	0.50	0.28	0.5	0.6	0.3	
647371.125	3218.375	2034	0.005	0.47	0.50	0.28	0.5	0.6	0.3	
647371.125	3218.375	2035	0.005	0.45	0.49	0.27	0.5	0.6	0.3	
647320.813	3218.250	2036	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647371.125	3218.375	2037	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647371.125	3218.375	2038	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647371.125	3218.375	2039	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647320.813	3218.250	2040	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647371.125	3218.375	2041	0.004	0.45	0.48	0.27	0.7	0.8	0.4	
647371.125	3218.375	2042	0.004	0.45	0.48	0.28	0.4	0.4	0.3	
647371.125	3218.375	2043	0.015	0.45	0.48	0.27	1.6	1.7	0.9	
647320.813	3218.250	2044	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647371.125	3218.375	2045	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647371.125	3218.375	2046	0.015	0.44	0.47	0.27	1.5	1.6	0.9	
647371.125	3218.375	2047	0.015	0.44	0.47	0.27	2.7	2.9	1.7	
647320.813	3218.250	2048	0.004	0.43	0.47	0.26	0.7	0.8	0.4	
647371.125	3218.375	2049	0.004	0.43	0.46	0.26	0.7	0.8	0.4	
647371.125	3218.375	2050	0.004	0.43	0.46	0.26	0.4	0.4	0.2	
647371.125	3218.375	2051	0.004	0.43	0.46	0.25	0.7	0.8	0.4	
647320.813	3218.250	2052	0.004	0.43	0.46	0.25	0.4	0.4	0.2	
647371.125	3218.375	2053	0.004	0.43	0.45	0.25	0.4	0.4	0.2	
647371.125	3218.375	2054	0.030	0.43	0.44	0.25	5.4	5.5	3.1	
647371.125	3218.375	2055	0.030	0.43	0.44	0.25	5.4	5.5	3.1	
647320.813	3218.250	2056	0.030	0.43	0.44	0.24	8.4	8.6	4.7	
647371.125	3218.375	2057	0.040	0.43	0.44	0.24	15.3	15.7	8.6	
647371.125	3218.375	2058	0.009	0.43	0.44	0.24	2.5	2.6	1.4	
647371.125	3218.375	2059	0.009	0.43	0.44	0.25	0.9	0.9	0.5	
647320.813	3218.250	2060	0.009	0.43	0.44	0.25	2.5	2.6	1.5	
647371.125	3218.375	2061	0.009	0.42	0.44	0.25	2.5	2.6	1.5	
647371.125	3218.375	2062	0.009	0.42	0.44	0.25	2.5	2.6	1.5	
647371.125	3218.375	2063	0.024	0.42	0.45	0.25	2.3	2.5	1.4	
647320.813	3218.250	2064	0.024	0.42	0.45	0.25	2.3	2.5	1.4	
647371.125	3218.375	2065	0.040	0.42	0.45	0.25	11.0	11.8	6.5	
647371.125	3218.375	2066	0.024	0.42	0.45	0.26	2.3	2.5	1.4	
647371.125	3218.375	2067	0.024	0.43	0.46	0.26	6.7	7.2	4.1	
647320.813	3218.250	2068	0.024	0.43	0.46	0.27	12.9	13.8	8.1	
647371.125	3218.375	2069	0.024	0.43	0.46	0.27	6.7	7.2	4.2	
647371.125	3218.375	2070	0.024	0.43	0.46	0.27	12.9	13.8	8.1	
647371.125	3218.375	2071	0.024	0.43	0.47	0.28	9.2	10.1	6.0	
647320.813	3218.250	2072	0.024	0.43	0.47	0.28	6.7	7.4	4.4	
647371.125	3218.375	2073	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647371.125	3218.375	2074	0.024	0.43	0.47	0.28	4.3	4.7	2.8	
647371.125	3218.375	2075	0.024	0.44	0.47	0.29	4.4	4.7	2.9	
647320.813	3218.250	2076	0.024	0.44	0.47	0.30	4.4	4.7	3.0	
647371.125	3218.375	2077	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	2078	0.024	0.44	0.48	0.30	4.4	4.8	3.0	

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647371.125	3218.375	2079	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647320.813	3218.250	2080	0.024	0.44	0.49	0.31	6.9	7.7	4.9	
647371.125	3218.375	2081	0.024	0.44	0.49	0.31	9.4	10.5	6.6	
647371.125	3218.375	2082	0.024	0.45	0.49	0.32	9.6	10.5	6.8	
647371.125	3218.375	2083	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647320.813	3218.250	2084	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647371.125	3218.375	2085	0.024	0.45	0.50	0.33	4.5	5.0	3.3	
647371.125	3218.375	2086	0.024	0.45	0.51	0.33	4.5	5.1	3.3	
571308.250	3058.084	2087	0.024	0.45	0.51	0.34	2.5	2.8	1.9	
250489.891	2411.909	2088	0.005	0.51	0.51	0.36	0.6	0.6	0.4	
689.094	144.188	2089	0.024	0.45	0.51	0.35	4.5	5.1	3.5	
639819.250	3145.643	2090	0.005	0.51	0.52	0.36	0.6	0.6	0.4	
647773.438	3219.375	2091	0.005	0.51	0.52	0.36	0.6	0.6	0.4	
647748.250	3219.313	2092	0.005	0.51	0.51	0.36	1.1	1.1	0.7	
647773.438	3219.375	2093	0.005	0.50	0.51	0.35	1.6	1.7	1.1	
647748.250	3219.313	2094	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647773.438	3219.375	2095	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647748.250	3219.313	2096	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647773.438	3219.375	2097	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647748.250	3219.313	2098	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647773.438	3219.375	2099	0.004	0.50	0.51	0.34	0.5	0.5	0.3	
647748.250	3219.313	2100	0.004	0.49	0.51	0.33	1.7	1.8	1.2	
647773.438	3219.375	2101	0.004	0.49	0.51	0.34	1.3	1.3	0.9	
647748.250	3219.313	2102	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647773.438	3219.375	2103	0.004	0.49	0.51	0.33	1.3	1.3	0.9	
647748.250	3219.313	2104	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647748.250	3219.313	2105	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647773.438	3219.375	2106	0.004	0.49	0.51	0.31	0.8	0.8	0.5	
647773.438	3219.375	2107	0.004	0.50	0.51	0.32	1.8	1.8	1.1	
647773.438	3219.375	2108	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647723.125	3219.250	2109	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647773.438	3219.375	2110	0.004	0.49	0.50	0.31	1.7	1.8	1.1	
647773.438	3219.375	2111	0.004	0.49	0.50	0.31	1.3	1.3	0.8	
647773.438	3219.375	2112	0.004	0.49	0.49	0.30	1.3	1.3	0.8	
647723.125	3219.250	2113	0.004	0.49	0.49	0.30	0.5	0.5	0.3	
647773.438	3219.375	2114	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647773.438	3219.375	2115	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647773.438	3219.375	2116	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647723.125	3219.250	2117	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647773.438	3219.375	2118	0.004	0.48	0.49	0.29	0.4	0.5	0.3	
647773.438	3219.375	2119	0.004	0.48	0.49	0.28	0.4	0.5	0.3	
647773.438	3219.375	2120	0.004	0.48	0.49	0.28	0.4	0.5	0.3	
647723.125	3219.250	2121	0.004	0.48	0.50	0.28	0.4	0.5	0.3	
647773.438	3219.375	2122	0.004	0.48	0.50	0.29	0.4	0.5	0.3	
647773.438	3219.375	2123	0.004	0.48	0.50	0.29	0.4	0.5	0.3	
647773.438	3219.375	2124	0.004	0.47	0.50	0.28	0.4	0.5	0.3	
647723.125	3219.250	2125	0.004	0.47	0.50	0.28	0.4	0.5	0.3	
647773.438	3219.375	2126	0.004	0.47	0.50	0.27	0.8	0.8	0.4	
647773.438	3219.375	2127	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647773.438	3219.375	2128	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647723.125	3219.250	2129	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647773.438	3219.375	2130	0.004	0.45	0.49	0.27	0.7	0.8	0.4	

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647773.438	3219.375	2131	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2132	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647723.125	3219.250	2133	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647773.438	3219.375	2134	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2135	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2136	0.004	0.45	0.48	0.27	0.4	0.4	0.3	
647723.125	3219.250	2137	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647773.438	3219.375	2138	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647773.438	3219.375	2139	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647773.438	3219.375	2140	0.015	0.44	0.47	0.27	1.5	1.6	0.9	
647723.125	3219.250	2141	0.015	0.44	0.47	0.27	2.7	2.9	1.7	
647773.438	3219.375	2142	0.004	0.44	0.46	0.26	0.7	0.8	0.4	
647773.438	3219.375	2143	0.004	0.44	0.46	0.26	0.4	0.4	0.2	
647773.438	3219.375	2144	0.004	0.44	0.47	0.26	0.4	0.4	0.2	
647723.125	3219.250	2145	0.004	0.43	0.46	0.26	0.4	0.4	0.2	
647773.438	3219.375	2146	0.004	0.43	0.46	0.24	0.4	0.4	0.2	
647773.438	3219.375	2147	0.004	0.43	0.44	0.24	0.4	0.4	0.2	
647773.438	3219.375	2148	0.030	0.43	0.44	0.24	8.4	8.6	4.7	
647723.125	3219.250	2149	0.040	0.43	0.44	0.24	15.3	15.7	8.6	
647773.438	3219.375	2150	0.030	0.43	0.44	0.24	11.5	11.8	6.4	
647773.438	3219.375	2151	0.009	0.43	0.44	0.24	2.5	2.6	1.4	
647773.438	3219.375	2152	0.009	0.43	0.44	0.24	1.6	1.6	0.9	
647723.125	3219.250	2153	0.009	0.43	0.44	0.24	1.6	1.6	0.9	
647773.438	3219.375	2154	0.009	0.43	0.44	0.24	1.6	1.6	0.9	
647773.438	3219.375	2155	0.009	0.43	0.44	0.25	1.6	1.6	0.9	
647773.438	3219.375	2156	0.009	0.42	0.45	0.25	0.9	0.9	0.5	
647723.125	3219.250	2157	0.024	0.42	0.45	0.25	2.3	2.5	1.4	
647773.438	3219.375	2158	0.024	0.43	0.45	0.26	6.7	7.1	4.1	
647773.438	3219.375	2159	0.024	0.42	0.45	0.25	6.6	7.1	3.9	
647773.438	3219.375	2160	0.024	0.43	0.46	0.26	2.4	2.6	1.4	
647723.125	3219.250	2161	0.024	0.43	0.46	0.26	6.7	7.2	4.1	
647773.438	3219.375	2162	0.024	0.43	0.46	0.26	12.9	13.8	7.8	
647773.438	3219.375	2163	0.024	0.43	0.47	0.27	12.9	14.1	8.1	
647773.438	3219.375	2164	0.024	0.43	0.46	0.27	6.7	7.2	4.2	
647723.125	3219.250	2165	0.024	0.43	0.46	0.28	6.7	7.2	4.4	
647773.438	3219.375	2166	0.024	0.43	0.47	0.28	6.7	7.4	4.4	
647773.438	3219.375	2167	0.024	0.43	0.47	0.28	6.7	7.4	4.4	
647773.438	3219.375	2168	0.024	0.44	0.48	0.28	6.9	7.5	4.4	
647723.125	3219.250	2169	0.024	0.44	0.48	0.29	6.9	7.5	4.5	
647773.438	3219.375	2170	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647773.438	3219.375	2171	0.024	0.44	0.48	0.30	2.4	2.7	1.7	
647773.438	3219.375	2172	0.024	0.44	0.48	0.31	2.4	2.7	1.7	
647723.125	3219.250	2173	0.040	0.44	0.49	0.31	4.1	4.5	2.9	
647773.438	3219.375	2174	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647773.438	3219.375	2175	0.024	0.45	0.49	0.32	9.6	10.5	6.8	
647773.438	3219.375	2176	0.024	0.45	0.50	0.32	13.5	15.0	9.6	
647723.125	3219.250	2177	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647773.438	3219.375	2178	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647773.438	3219.375	2179	0.024	0.45	0.51	0.33	4.5	5.1	3.3	
647773.438	3219.375	2180	0.024	0.45	0.51	0.33	2.5	2.8	1.6	
144975.469	2029.419	2181	0.024	0.45	0.51	0.34	2.5	2.8	1.9	
208206.219	2206.043	2182	0.005	0.51	0.52	0.37	0.6	0.6	0.4	

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628450.875	3104.571	2183	0.004	0.51	0.52	0.37	0.5	0.5	0.3	
647345.938	3218.313	2184	0.005	0.51	0.52	0.37	0.6	0.6	0.4	
647371.125	3218.375	2185	0.005	0.51	0.52	0.36	1.1	1.1	0.7	
647345.938	3218.313	2186	0.005	0.51	0.52	0.36	0.6	0.6	0.4	
647371.125	3218.375	2187	0.005	0.50	0.52	0.36	0.6	0.6	0.4	
647345.938	3218.313	2188	0.005	0.50	0.51	0.35	0.6	0.6	0.4	
647371.125	3218.375	2189	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	2190	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	2191	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	2192	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647371.125	3218.375	2193	0.004	0.50	0.51	0.35	1.8	1.8	1.2	
647345.938	3218.313	2194	0.004	0.49	0.50	0.34	2.4	2.5	1.7	
647371.125	3218.375	2195	0.004	0.49	0.51	0.34	2.4	2.5	1.7	
647345.938	3218.313	2196	0.004	0.49	0.51	0.33	1.7	1.8	1.2	
647371.125	3218.375	2197	0.004	0.49	0.51	0.33	2.4	2.5	1.6	
647345.938	3218.313	2198	0.004	0.49	0.51	0.33	1.7	1.8	1.2	
647345.938	3218.313	2199	0.004	0.49	0.51	0.32	3.2	3.3	2.1	
647371.125	3218.375	2200	0.004	0.49	0.51	0.32	3.2	3.3	2.1	
647371.125	3218.375	2201	0.004	0.49	0.51	0.32	3.2	3.3	2.1	
647371.125	3218.375	2202	0.004	0.49	0.50	0.32	1.3	1.3	0.8	
647320.813	3218.250	2203	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647371.125	3218.375	2204	0.004	0.49	0.50	0.31	1.3	1.3	0.8	
647371.125	3218.375	2205	0.004	0.49	0.50	0.31	0.8	0.8	0.5	
647371.125	3218.375	2206	0.004	0.49	0.50	0.30	0.8	0.8	0.5	
647320.813	3218.250	2207	0.004	0.49	0.49	0.30	0.5	0.5	0.3	
647371.125	3218.375	2208	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	2209	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647371.125	3218.375	2210	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647320.813	3218.250	2211	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647371.125	3218.375	2212	0.004	0.49	0.49	0.29	0.5	0.5	0.3	
647371.125	3218.375	2213	0.004	0.48	0.49	0.28	0.4	0.5	0.3	
647371.125	3218.375	2214	0.004	0.48	0.50	0.28	0.4	0.5	0.3	
647320.813	3218.250	2215	0.004	0.48	0.50	0.28	0.8	0.8	0.5	
647371.125	3218.375	2216	0.004	0.48	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2217	0.004	0.48	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2218	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647320.813	3218.250	2219	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2220	0.004	0.47	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2221	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647371.125	3218.375	2222	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647320.813	3218.250	2223	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2224	0.004	0.45	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2225	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2226	0.004	0.45	0.49	0.27	0.7	0.8	0.4	
647320.813	3218.250	2227	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2228	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2229	0.004	0.46	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2230	0.004	0.44	0.49	0.28	0.4	0.5	0.2	
647320.813	3218.250	2231	0.015	0.44	0.48	0.27	1.5	1.7	0.9	
647371.125	3218.375	2232	0.015	0.44	0.48	0.28	1.5	1.7	0.9	
647371.125	3218.375	2233	0.015	0.44	0.48	0.28	1.5	1.7	0.9	
647371.125	3218.375	2234	0.015	0.44	0.47	0.28	1.5	1.6	0.9	

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647320.813	3218.250	2235	0.004	0.44	0.46	0.27	1.6	1.7	1.0	
647371.125	3218.375	2236	0.004	0.44	0.47	0.28	1.2	1.2	0.7	
647371.125	3218.375	2237	0.004	0.44	0.46	0.25	0.7	0.8	0.4	
647371.125	3218.375	2238	0.004	0.44	0.47	0.28	0.7	0.8	0.4	
647320.813	3218.250	2239	0.004	0.44	0.46	0.25	0.7	0.8	0.4	
647371.125	3218.375	2240	0.004	0.44	0.46	0.25	0.7	0.8	0.4	
647371.125	3218.375	2241	0.004	0.44	0.45	0.25	0.4	0.4	0.2	
647371.125	3218.375	2242	0.030	0.43	0.44	0.24	3.0	3.1	1.7	
647320.813	3218.250	2243	0.030	0.43	0.44	0.23	3.0	3.1	1.6	
647371.125	3218.375	2244	0.030	0.43	0.44	0.24	3.0	3.1	1.7	
647371.125	3218.375	2245	0.030	0.43	0.43	0.23	5.4	5.4	2.9	
647371.125	3218.375	2246	0.045	0.43	0.44	0.23	8.0	8.2	4.3	
647320.813	3218.250	2247	0.045	0.43	0.44	0.24	8.0	8.2	4.5	
647371.125	3218.375	2248	0.008	0.43	0.44	0.24	0.9	0.9	0.5	
647371.125	3218.375	2249	0.009	0.43	0.44	0.24	2.5	2.6	1.4	
647371.125	3218.375	2250	0.008	0.43	0.45	0.25	2.5	2.6	1.5	
647320.813	3218.250	2251	0.024	0.43	0.45	0.25	2.4	2.5	1.4	
647371.125	3218.375	2252	0.024	0.42	0.45	0.25	4.2	4.5	2.5	
647371.125	3218.375	2253	0.024	0.42	0.45	0.25	6.6	7.1	3.9	
647371.125	3218.375	2254	0.040	0.43	0.46	0.25	4.0	4.3	2.3	
647320.813	3218.250	2255	0.040	0.43	0.46	0.25	15.3	16.4	8.9	
647371.125	3218.375	2256	0.024	0.43	0.46	0.26	9.2	9.8	5.6	
647371.125	3218.375	2257	0.024	0.43	0.47	0.26	6.7	7.4	4.1	
647371.125	3218.375	2258	0.024	0.43	0.46	0.27	6.7	7.2	4.2	
647320.813	3218.250	2259	0.024	0.43	0.47	0.27	6.7	7.4	4.2	
647371.125	3218.375	2260	0.024	0.43	0.47	0.28	12.9	14.1	8.4	
647371.125	3218.375	2261	0.024	0.43	0.47	0.28	9.2	10.1	6.0	
647371.125	3218.375	2262	0.024	0.44	0.48	0.29	9.4	10.3	6.2	
647320.813	3218.250	2263	0.024	0.44	0.48	0.28	6.9	7.5	4.4	
647371.125	3218.375	2264	0.024	0.44	0.48	0.29	6.9	7.5	4.5	
647371.125	3218.375	2265	0.024	0.44	0.48	0.29	4.4	4.8	2.9	
647371.125	3218.375	2266	0.024	0.44	0.48	0.30	13.2	14.4	9.0	
647320.813	3218.250	2267	0.024	0.44	0.49	0.30	13.2	14.7	9.0	
647371.125	3218.375	2268	0.024	0.44	0.49	0.31	13.2	14.7	8.3	
647371.125	3218.375	2269	0.040	0.44	0.49	0.31	15.7	17.5	11.1	
647371.125	3218.375	2270	0.024	0.45	0.50	0.32	7.1	7.8	5.0	
647320.813	3218.250	2271	0.024	0.45	0.50	0.33	9.6	10.7	7.1	
647371.125	3218.375	2272	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647371.125	3218.375	2273	0.024	0.45	0.50	0.32	4.5	5.0	3.2	
647371.125	3218.375	2274	0.024	0.45	0.50	0.33	2.5	2.8	1.8	
395016.188	2847.466	2275	0.024	0.45	0.51	0.34	2.5	2.8	1.9	
212963.594	2352.006	2276	0.004	0.51	0.52	0.37	0.5	0.5	0.3	
646916.813	3201.530	2277	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647371.125	3218.375	2278	0.004	0.51	0.52	0.37	0.5	0.5	0.3	
647345.938	3218.313	2279	0.004	0.51	0.52	0.37	0.5	0.5	0.3	
647371.125	3218.375	2280	0.005	0.51	0.52	0.37	0.6	0.6	0.4	
647345.938	3218.313	2281	0.005	0.50	0.52	0.38	0.6	0.6	0.4	
647371.125	3218.375	2282	0.004	0.50	0.52	0.36	0.5	0.5	0.3	
647345.938	3218.313	2283	0.004	0.50	0.52	0.36	0.5	0.5	0.3	
647371.125	3218.375	2284	0.004	0.50	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	2285	0.004	0.50	0.51	0.35	1.3	1.3	0.9	
647371.125	3218.375	2286	0.004	0.50	0.51	0.35	0.5	0.5	0.3	

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647345.938	3218.313	2287	0.004	0.50	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2288	0.004	0.49	0.50	0.36	1.7	1.8	1.2	
647345.938	3218.313	2289	0.004	0.49	0.50	0.36	0.5	0.5	0.3	
647371.125	3218.375	2290	0.004	0.49	0.51	0.36	1.7	1.8	1.2	
647345.938	3218.313	2291	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647371.125	3218.375	2292	0.004	0.49	0.51	0.34	1.7	1.8	1.2	
647345.938	3218.313	2293	0.004	0.49	0.51	0.34	0.8	0.8	0.6	
647345.938	3218.313	2294	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2295	0.004	0.49	0.51	0.33	0.8	0.8	0.5	
647371.125	3218.375	2296	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2297	0.004	0.50	0.51	0.33	0.8	0.8	0.5	
647320.813	3218.250	2298	0.004	0.49	0.50	0.32	0.8	0.8	0.5	
647371.125	3218.375	2299	0.004	0.49	0.50	0.31	0.8	0.8	0.5	
647371.125	3218.375	2300	0.004	0.49	0.50	0.31	0.5	0.5	0.3	
647371.125	3218.375	2301	0.004	0.49	0.50	0.30	0.5	0.5	0.3	
647320.813	3218.250	2302	0.004	0.49	0.50	0.30	0.5	0.5	0.3	
647371.125	3218.375	2303	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	2304	0.004	0.49	0.49	0.29	0.8	0.8	0.5	
647371.125	3218.375	2305	0.004	0.49	0.49	0.28	0.8	0.8	0.5	
647320.813	3218.250	2306	0.004	0.49	0.49	0.28	0.8	0.8	0.5	
647371.125	3218.375	2307	0.004	0.49	0.49	0.28	0.5	0.5	0.3	
647371.125	3218.375	2308	0.004	0.49	0.50	0.28	0.5	0.5	0.3	
647371.125	3218.375	2309	0.004	0.49	0.50	0.29	0.5	0.5	0.3	
647320.813	3218.250	2310	0.004	0.48	0.50	0.28	0.8	0.8	0.5	
647371.125	3218.375	2311	0.004	0.48	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2312	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2313	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647320.813	3218.250	2314	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2315	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2316	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2317	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647320.813	3218.250	2318	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2319	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2320	0.004	0.46	0.50	0.27	0.8	0.8	0.4	
647371.125	3218.375	2321	0.004	0.45	0.50	0.27	0.7	0.8	0.4	
647320.813	3218.250	2322	0.004	0.45	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2323	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2324	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2325	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647320.813	3218.250	2326	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2327	0.015	0.44	0.49	0.28	1.5	1.7	0.9	
647371.125	3218.375	2328	0.015	0.44	0.48	0.28	1.5	1.7	0.9	
647371.125	3218.375	2329	0.015	0.44	0.47	0.28	2.7	2.9	1.6	
647320.813	3218.250	2330	0.004	0.44	0.47	0.25	1.6	1.7	0.9	
647371.125	3218.375	2331	0.004	0.44	0.48	0.28	0.4	0.4	0.2	
647371.125	3218.375	2332	0.004	0.44	0.46	0.25	1.2	1.2	0.7	
647371.125	3218.375	2333	0.004	0.44	0.46	0.25	1.2	1.2	0.7	
647320.813	3218.250	2334	0.004	0.44	0.46	0.25	1.2	1.2	0.7	
647371.125	3218.375	2335	0.004	0.44	0.46	0.25	1.6	1.6	0.9	
647371.125	3218.375	2336	0.004	0.44	0.45	0.24	0.7	0.7	0.4	
647371.125	3218.375	2337	0.004	0.44	0.45	0.25	0.4	0.4	0.2	
647320.813	3218.250	2338	0.004	0.44	0.44	0.24	0.4	0.4	0.2	

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647371.125	3218.375	2339	0.030	0.43	0.44	0.23	3.0	3.1	1.6	
647371.125	3218.375	2340	0.030	0.43	0.44	0.24	8.4	8.6	4.7	
647371.125	3218.375	2341	0.030	0.43	0.44	0.23	8.4	8.6	4.5	
647320.813	3218.250	2342	0.030	0.43	0.44	0.23	8.4	8.6	4.5	
647371.125	3218.375	2343	0.045	0.43	0.44	0.23	8.0	8.2	4.3	
647371.125	3218.375	2344	0.009	0.43	0.44	0.24	1.8	1.8	0.9	
647371.125	3218.375	2345	0.009	0.43	0.45	0.24	0.9	0.9	0.5	
647320.813	3218.250	2346	0.009	0.43	0.45	0.24	1.6	1.7	0.9	
647371.125	3218.375	2347	0.024	0.43	0.45	0.25	8.2	9.6	5.3	
647371.125	3218.375	2348	0.024	0.42	0.45	0.24	4.2	4.5	2.4	
647371.125	3218.375	2349	0.024	0.43	0.46	0.25	4.3	4.6	2.5	
647320.813	3218.250	2350	0.024	0.43	0.46	0.25	6.7	7.2	3.9	
647371.125	3218.375	2351	0.040	0.43	0.46	0.25	15.3	16.4	8.9	
647371.125	3218.375	2352	0.024	0.43	0.47	0.26	4.3	4.7	2.6	
647371.125	3218.375	2353	0.024	0.43	0.47	0.26	4.3	4.7	2.6	
647320.813	3218.250	2354	0.024	0.43	0.47	0.27	4.3	4.7	2.7	
647371.125	3218.375	2355	0.024	0.43	0.47	0.27	4.3	4.7	2.7	
647371.125	3218.375	2356	0.024	0.43	0.47	0.28	6.7	7.4	4.4	
647371.125	3218.375	2357	0.024	0.43	0.47	0.28	4.3	4.7	2.8	
647320.813	3218.250	2358	0.024	0.44	0.48	0.29	2.4	2.7	1.6	
647371.125	3218.375	2359	0.024	0.44	0.48	0.29	2.4	2.7	1.6	
647371.125	3218.375	2360	0.024	0.44	0.48	0.29	13.2	14.4	8.7	
647371.125	3218.375	2361	0.024	0.44	0.48	0.29	9.4	10.3	6.2	
647320.813	3218.250	2362	0.024	0.44	0.49	0.30	4.4	4.9	3.0	
647371.125	3218.375	2363	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647371.125	3218.375	2364	0.024	0.44	0.49	0.31	6.9	7.7	4.9	
647371.125	3218.375	2365	0.040	0.44	0.49	0.31	15.7	17.5	11.1	
647320.813	3218.250	2366	0.024	0.45	0.50	0.32	7.1	7.8	5.0	
647371.125	3218.375	2367	0.024	0.45	0.50	0.33	4.5	5.0	3.3	
647371.125	3218.375	2368	0.024	0.45	0.50	0.33	2.5	2.8	1.8	
647371.125	3218.375	2369	0.024	0.45	0.50	0.32	2.5	2.8	1.8	
613734.625	3067.646	2370	0.024	0.45	0.50	0.33	2.5	2.8	1.8	
399929.688	2782.485	2371	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
42049.219	1046.089	2372	0.024	0.45	0.50	0.34	2.5	2.8	1.9	
32558.094	880.280	2373	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
543094.125	2936.346	2374	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647773.438	3219.375	2375	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647748.250	3219.313	2376	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647773.438	3219.375	2377	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647748.250	3219.313	2378	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647773.438	3219.375	2379	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647748.250	3219.313	2380	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647773.438	3219.375	2381	0.004	0.50	0.52	0.37	0.5	0.5	0.3	
647748.250	3219.313	2382	0.004	0.50	0.52	0.37	0.5	0.5	0.3	
647773.438	3219.375	2383	0.004	0.50	0.52	0.37	0.8	0.9	0.6	
647748.250	3219.313	2384	0.004	0.50	0.52	0.37	1.3	1.4	1.0	
647773.438	3219.375	2385	0.004	0.50	0.51	0.36	0.5	0.5	0.3	
647748.250	3219.313	2386	0.004	0.50	0.51	0.36	0.8	0.8	0.6	
647773.438	3219.375	2387	0.004	0.49	0.50	0.35	1.3	1.3	0.9	
647748.250	3219.313	2388	0.004	0.49	0.51	0.36	1.3	1.3	0.9	
647773.438	3219.375	2389	0.004	0.49	0.51	0.35	1.3	1.3	0.9	
647748.250	3219.313	2390	0.004	0.49	0.51	0.35	1.3	1.3	0.9	

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647773.438	3219.375	2301	0.004	0.49	0.50	0.34	1.3	1.3	0.9	
647748.250	3219.313	2302	0.004	0.49	0.50	0.33	0.8	0.8	0.5	
647748.250	3219.313	2303	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647773.438	3219.375	2304	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647773.438	3219.375	2305	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647773.438	3219.375	2306	0.004	0.49	0.51	0.32	1.3	1.3	0.8	
647723.125	3219.250	2307	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647773.438	3219.375	2308	0.004	0.49	0.51	0.31	0.4	0.5	0.3	
647773.438	3219.375	2309	0.004	0.49	0.50	0.31	0.5	0.5	0.3	
647773.438	3219.375	2400	0.004	0.49	0.50	0.30	0.5	0.5	0.3	
647723.125	3219.250	2401	0.004	0.49	0.50	0.30	0.5	0.5	0.3	
647773.438	3219.375	2402	0.004	0.49	0.50	0.29	0.5	0.5	0.3	
647773.438	3219.375	2403	0.004	0.49	0.50	0.29	1.3	1.3	0.8	
647773.438	3219.375	2404	0.004	0.49	0.50	0.28	0.8	0.8	0.5	
647723.125	3219.250	2405	0.004	0.49	0.50	0.28	1.3	1.3	0.7	
647773.438	3219.375	2406	0.004	0.49	0.50	0.28	0.8	0.8	0.5	
647773.438	3219.375	2407	0.004	0.49	0.50	0.28	0.5	0.5	0.3	
647773.438	3219.375	2408	0.004	0.49	0.51	0.28	0.8	0.8	0.5	
647723.125	3219.250	2409	0.004	0.48	0.51	0.29	0.5	0.5	0.3	
647773.438	3219.375	2410	0.004	0.49	0.51	0.28	0.5	0.5	0.3	
647773.438	3219.375	2411	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647773.438	3219.375	2412	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647723.125	3219.250	2413	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647773.438	3219.375	2414	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647773.438	3219.375	2415	0.004	0.48	0.51	0.28	0.4	0.5	0.3	
647773.438	3219.375	2416	0.004	0.46	0.51	0.28	0.4	0.5	0.3	
647723.125	3219.250	2417	0.004	0.46	0.51	0.27	0.4	0.5	0.3	
647773.438	3219.375	2418	0.004	0.46	0.51	0.27	0.4	0.5	0.3	
647773.438	3219.375	2419	0.004	0.46	0.50	0.28	0.8	0.8	0.5	
647773.438	3219.375	2420	0.004	0.46	0.50	0.27	0.8	0.8	0.4	
647723.125	3219.250	2421	0.004	0.45	0.50	0.26	0.4	0.5	0.2	
647773.438	3219.375	2422	0.004	0.45	0.50	0.26	0.4	0.5	0.2	
647773.438	3219.375	2423	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2424	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647723.125	3219.250	2425	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647773.438	3219.375	2426	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647773.438	3219.375	2427	0.004	0.45	0.48	0.27	0.4	0.4	0.3	
647773.438	3219.375	2428	0.004	0.44	0.48	0.26	0.4	0.4	0.2	
647723.125	3219.250	2429	0.004	0.44	0.47	0.25	1.2	1.2	0.7	
647773.438	3219.375	2430	0.004	0.44	0.47	0.25	1.2	1.2	0.7	
647773.438	3219.375	2431	0.004	0.44	0.47	0.25	1.2	1.2	0.7	
647773.438	3219.375	2432	0.004	0.44	0.47	0.25	1.2	1.2	0.7	
647723.125	3219.250	2433	0.004	0.44	0.46	0.25	0.4	0.4	0.2	
647773.438	3219.375	2434	0.004	0.44	0.46	0.24	1.2	1.2	0.6	
647773.438	3219.375	2435	0.004	0.44	0.45	0.24	1.2	1.2	0.6	
647773.438	3219.375	2436	0.004	0.44	0.45	0.23	0.7	0.7	0.4	
647723.125	3219.250	2437	0.004	0.44	0.44	0.23	0.4	0.4	0.2	
647773.438	3219.375	2438	0.004	0.44	0.44	0.24	0.7	0.7	0.4	
647773.438	3219.375	2439	0.030	0.44	0.44	0.24	3.1	3.1	1.7	
647773.438	3219.375	2440	0.030	0.43	0.44	0.23	8.4	8.6	4.5	
647723.125	3219.250	2441	0.030	0.43	0.44	0.23	5.4	5.5	2.9	
647773.438	3219.375	2442	0.030	0.43	0.44	0.23	3.0	3.1	1.6	

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647773.438	3219.375	2443	0.030	0.43	0.44	0.23	5.4	5.5	2.9	
647773.438	3219.375	2444	0.045	0.43	0.45	0.24	4.5	4.7	2.5	
647723.125	3219.250	2445	0.009	0.43	0.45	0.24	0.9	0.9	0.5	
647773.438	3219.375	2446	0.009	0.43	0.45	0.24	3.4	3.6	1.9	
647773.438	3219.375	2447	0.009	0.44	0.45	0.25	2.6	2.6	1.5	
647773.438	3219.375	2448	0.009	0.44	0.46	0.25	1.6	1.7	0.9	
647723.125	3219.250	2449	0.009	0.43	0.46	0.25	2.5	2.7	1.5	
647773.438	3219.375	2450	0.009	0.43	0.46	0.25	2.5	2.7	1.5	
647773.438	3219.375	2451	0.009	0.43	0.47	0.25	4.8	5.3	2.8	
647773.438	3219.375	2452	0.024	0.43	0.47	0.28	16.7	18.2	10.1	
647723.125	3219.250	2453	0.024	0.43	0.47	0.28	4.3	4.7	2.6	
647773.438	3219.375	2454	0.024	0.43	0.48	0.27	4.3	4.8	2.7	
647773.438	3219.375	2455	0.024	0.43	0.47	0.27	6.7	7.4	4.2	
647773.438	3219.375	2456	0.024	0.43	0.47	0.28	4.3	4.7	2.8	
647723.125	3219.250	2457	0.024	0.44	0.48	0.28	2.4	2.7	1.6	
647773.438	3219.375	2458	0.024	0.44	0.48	0.29	2.4	2.7	1.6	
647773.438	3219.375	2459	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647773.438	3219.375	2460	0.024	0.44	0.48	0.29	13.2	14.4	8.7	
647723.125	3219.250	2461	0.024	0.44	0.49	0.29	13.2	14.7	8.7	
647773.438	3219.375	2462	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647773.438	3219.375	2463	0.024	0.44	0.49	0.30	4.4	4.9	3.0	
647773.438	3219.375	2464	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647723.125	3219.250	2465	0.024	0.44	0.49	0.32	2.4	2.7	1.8	
647773.438	3219.375	2466	0.024	0.44	0.50	0.32	2.4	2.8	1.8	
647773.438	3219.375	2467	0.024	0.45	0.50	0.33	2.5	2.8	1.8	
647773.438	3219.375	2468	0.024	0.45	0.50	0.33	2.5	2.8	1.8	
647723.125	3219.250	2469	0.024	0.44	0.50	0.32	2.4	2.8	1.8	
359684.063	2624.177	2470	0.024	0.44	0.50	0.33	2.4	2.8	1.8	
36834.063	936.811	2471	0.005	0.51	0.52	0.39	0.6	0.6	0.5	
9115.641	651.679	2472	0.025	0.40	0.44	0.37	6.5	7.2	6.0	
804.375	212.886	2473	0.001	0.40	0.44	0.36	0.2	0.2	0.1	
550847.875	2901.369	2474	0.005	0.51	0.52	0.39	1.1	1.1	0.8	
647345.938	3218.313	2475	0.005	0.51	0.52	0.39	1.7	1.7	1.3	
647371.125	3218.375	2476	0.004	0.51	0.52	0.39	1.3	1.4	1.0	
647345.938	3218.313	2477	0.004	0.51	0.52	0.39	0.5	0.5	0.4	
647371.125	3218.375	2478	0.004	0.51	0.52	0.39	0.5	0.5	0.4	
647345.938	3218.313	2479	0.004	0.51	0.52	0.38	0.5	0.5	0.4	
647371.125	3218.375	2480	0.004	0.51	0.52	0.38	0.8	0.9	0.6	
647345.938	3218.313	2481	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	2482	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647345.938	3218.313	2483	0.004	0.50	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2484	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647345.938	3218.313	2485	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	2486	0.004	0.50	0.51	0.36	0.5	0.5	0.3	
647345.938	3218.313	2487	0.004	0.50	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2488	0.004	0.49	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	2489	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2490	0.004	0.49	0.51	0.36	1.7	1.8	1.3	
647345.938	3218.313	2491	0.004	0.49	0.51	0.35	2.4	2.5	1.7	
647371.125	3218.375	2492	0.004	0.49	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	2493	0.004	0.49	0.50	0.33	0.8	0.8	0.5	
647345.938	3218.313	2494	0.004	0.49	0.51	0.33	0.5	0.5	0.3	

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647371.125	3218.375	2495	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2496	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2497	0.004	0.49	0.51	0.32	0.8	0.8	0.5	
647320.813	3218.250	2498	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2499	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2500	0.004	0.49	0.51	0.31	0.5	0.5	0.3	
647371.125	3218.375	2501	0.004	0.49	0.51	0.31	0.5	0.5	0.3	
647320.813	3218.250	2502	0.004	0.49	0.51	0.30	0.5	0.5	0.3	
647371.125	3218.375	2503	0.004	0.49	0.50	0.30	0.5	0.5	0.3	
647371.125	3218.375	2504	0.004	0.49	0.50	0.29	0.8	0.8	0.5	
647371.125	3218.375	2505	0.004	0.49	0.50	0.29	1.3	1.3	0.8	
647320.813	3218.250	2506	0.004	0.49	0.50	0.28	0.8	0.8	0.5	
647371.125	3218.375	2507	0.004	0.49	0.51	0.28	1.7	1.8	1.0	
647371.125	3218.375	2508	0.004	0.49	0.51	0.28	1.3	1.3	0.7	
647371.125	3218.375	2509	0.004	0.49	0.52	0.28	0.8	0.9	0.5	
647320.813	3218.250	2510	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2511	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2512	0.004	0.49	0.52	0.28	0.5	0.5	0.3	
647371.125	3218.375	2513	0.004	0.48	0.52	0.28	0.4	0.5	0.3	
647320.813	3218.250	2514	0.004	0.48	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2515	0.004	0.48	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2516	0.004	0.48	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2517	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647320.813	3218.250	2518	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2519	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2520	0.004	0.46	0.52	0.27	0.4	0.5	0.3	
647371.125	3218.375	2521	0.004	0.46	0.51	0.27	0.4	0.5	0.3	
647320.813	3218.250	2522	0.004	0.46	0.51	0.26	0.4	0.5	0.2	
647371.125	3218.375	2523	0.004	0.46	0.50	0.26	0.4	0.5	0.2	
647371.125	3218.375	2524	0.004	0.45	0.50	0.26	0.4	0.5	0.2	
647371.125	3218.375	2525	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647320.813	3218.250	2526	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647371.125	3218.375	2527	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647371.125	3218.375	2528	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647371.125	3218.375	2529	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647320.813	3218.250	2530	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647371.125	3218.375	2531	0.004	0.44	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	2532	0.004	0.44	0.46	0.25	1.2	1.2	0.7	
647371.125	3218.375	2533	0.004	0.44	0.47	0.25	0.7	0.8	0.4	
647320.813	3218.250	2534	0.004	0.44	0.46	0.25	0.4	0.4	0.2	
647371.125	3218.375	2535	0.004	0.44	0.46	0.24	0.4	0.4	0.2	
647371.125	3218.375	2536	0.004	0.44	0.45	0.24	0.7	0.7	0.4	
647371.125	3218.375	2537	0.004	0.44	0.45	0.23	1.2	1.2	0.6	
647320.813	3218.250	2538	0.004	0.44	0.44	0.23	1.2	1.2	0.6	
647371.125	3218.375	2539	0.004	0.44	0.44	0.23	0.7	0.7	0.4	
647371.125	3218.375	2540	0.004	0.44	0.45	0.24	0.4	0.4	0.2	
647371.125	3218.375	2541	0.030	0.44	0.45	0.24	3.1	3.1	1.7	
647320.813	3218.250	2542	0.030	0.44	0.44	0.23	5.5	5.5	2.9	
647371.125	3218.375	2543	0.030	0.43	0.44	0.23	11.5	11.8	6.1	
647371.125	3218.375	2544	0.030	0.43	0.44	0.23	8.4	8.6	4.5	
647371.125	3218.375	2545	0.030	0.43	0.45	0.23	5.4	5.6	2.9	
647320.813	3218.250	2546	0.045	0.43	0.45	0.23	4.5	4.7	2.4	

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647371.125	3218.375	2547	0.045	0.43	0.45	0.24	12.6	13.2	7.1	
647371.125	3218.375	2548	0.045	0.43	0.46	0.24	24.1	25.8	13.5	
647371.125	3218.375	2549	0.009	0.44	0.46	0.25	2.6	2.7	1.5	
647320.813	3218.250	2550	0.009	0.44	0.46	0.25	3.5	3.7	2.0	
647371.125	3218.375	2551	0.009	0.43	0.46	0.24	3.4	3.7	1.9	
647371.125	3218.375	2552	0.009	0.43	0.47	0.25	3.4	3.8	2.0	
647371.125	3218.375	2553	0.045	0.43	0.47	0.25	31.3	34.2	18.2	
647320.813	3218.250	2554	0.045	0.43	0.47	0.26	17.2	18.8	10.4	
647371.125	3218.375	2555	0.024	0.43	0.47	0.26	6.7	7.4	4.1	
647371.125	3218.375	2556	0.024	0.43	0.47	0.27	4.3	4.7	2.7	
647371.125	3218.375	2557	0.024	0.43	0.47	0.27	12.9	14.1	8.1	
647320.813	3218.250	2558	0.024	0.43	0.47	0.28	6.7	7.4	4.4	
647371.125	3218.375	2559	0.024	0.44	0.48	0.28	4.4	4.8	2.8	
647371.125	3218.375	2560	0.024	0.44	0.48	0.29	6.9	7.5	4.5	
647371.125	3218.375	2561	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647320.813	3218.250	2562	0.024	0.44	0.48	0.30	13.2	14.4	9.0	
647371.125	3218.375	2563	0.024	0.44	0.49	0.29	9.4	10.5	6.2	
647371.125	3218.375	2564	0.024	0.44	0.49	0.30	2.4	2.7	1.7	
647371.125	3218.375	2565	0.024	0.44	0.49	0.31	2.4	2.7	1.7	
647320.813	3218.250	2566	0.024	0.44	0.49	0.31	2.4	2.7	1.7	
647371.125	3218.375	2567	0.024	0.44	0.49	0.32	2.4	2.7	1.8	
647371.125	3218.375	2568	0.024	0.44	0.50	0.32	4.4	5.0	3.2	
647371.125	3218.375	2569	0.024	0.44	0.50	0.33	4.4	5.0	3.3	
647320.813	3218.250	2570	0.024	0.44	0.50	0.33	4.4	5.0	3.3	
632523.000	3122.827	2571	0.024	0.44	0.50	0.33	2.4	2.8	1.8	
605070.125	3108.776	2572	0.024	0.40	0.45	0.38	8.6	9.6	7.7	
599306.563	3058.651	2573	0.025	0.40	0.44	0.38	6.5	7.2	5.9	
403400.375	2887.298	2574	0.024	0.40	0.45	0.38	4.0	4.5	3.6	
284859.375	2482.181	2575	0.025	0.39	0.43	0.37	6.4	7.0	6.0	
93688.703	1613.345	2576	0.024	0.44	0.50	0.33	2.4	2.8	1.8	
108806.680	1414.858	2577	0.005	0.51	0.52	0.39	1.1	1.1	0.8	
73289.938	1288.039	2578	0.024	0.41	0.45	0.38	4.1	4.5	3.6	
8297.063	456.708	2579	0.025	0.39	0.43	0.37	4.1	4.5	3.8	
25467.188	798.336	2580	0.005	0.52	0.52	0.40	1.1	1.1	0.8	
350843.750	2830.452	2581	0.005	0.51	0.51	0.39	1.1	1.1	0.8	
637386.750	3138.559	2582	0.005	0.51	0.51	0.39	1.7	1.7	1.3	
647371.125	3218.375	2583	0.005	0.51	0.51	0.39	1.7	1.7	1.3	
647345.938	3218.313	2584	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	2585	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647345.938	3218.313	2586	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	2587	0.004	0.50	0.51	0.38	0.8	0.8	0.6	
647345.938	3218.313	2588	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	2589	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647345.938	3218.313	2590	0.004	0.50	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	2591	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647345.938	3218.313	2592	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647371.125	3218.375	2593	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647345.938	3218.313	2594	0.004	0.50	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2595	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647345.938	3218.313	2596	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	2597	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647345.938	3218.313	2598	0.004	0.49	0.51	0.35	0.5	0.5	0.3	

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647371.125	3218.375	2799	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647345.938	3218.313	2800	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647345.938	3218.313	2801	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	2802	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2803	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2804	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647320.813	3218.250	2805	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2806	0.004	0.49	0.51	0.32	0.5	0.5	0.3	
647371.125	3218.375	2807	0.004	0.49	0.51	0.31	0.8	0.8	0.5	
647371.125	3218.375	2808	0.004	0.49	0.51	0.31	0.5	0.5	0.3	
647320.813	3218.250	2809	0.004	0.49	0.51	0.30	0.5	0.5	0.3	
647371.125	3218.375	2810	0.004	0.49	0.51	0.30	0.5	0.5	0.3	
647371.125	3218.375	2811	0.004	0.49	0.51	0.30	0.8	0.8	0.5	
647371.125	3218.375	2812	0.004	0.49	0.51	0.29	1.7	1.8	1.0	
647320.813	3218.250	2813	0.004	0.49	0.51	0.29	0.8	0.8	0.5	
647371.125	3218.375	2814	0.004	0.49	0.52	0.29	4.0	4.2	2.4	
647371.125	3218.375	2815	0.004	0.49	0.52	0.28	1.3	1.4	0.7	
647371.125	3218.375	2816	0.004	0.49	0.52	0.28	0.8	0.9	0.5	
647320.813	3218.250	2817	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2818	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2819	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2820	0.004	0.49	0.52	0.28	0.5	0.5	0.3	
647320.813	3218.250	2821	0.004	0.49	0.52	0.29	0.5	0.5	0.3	
647371.125	3218.375	2822	0.004	0.47	0.53	0.28	0.4	0.5	0.3	
647371.125	3218.375	2823	0.004	0.47	0.53	0.28	0.4	0.5	0.3	
647371.125	3218.375	2824	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647320.813	3218.250	2825	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2826	0.004	0.47	0.52	0.28	0.8	0.9	0.5	
647371.125	3218.375	2827	0.004	0.47	0.52	0.28	0.8	0.9	0.5	
647371.125	3218.375	2828	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647320.813	3218.250	2829	0.004	0.48	0.51	0.27	0.4	0.5	0.3	
647371.125	3218.375	2830	0.004	0.48	0.51	0.27	0.4	0.5	0.3	
647371.125	3218.375	2831	0.004	0.48	0.50	0.26	0.4	0.5	0.2	
647371.125	3218.375	2832	0.004	0.48	0.50	0.26	0.4	0.5	0.2	
647320.813	3218.250	2833	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647371.125	3218.375	2834	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2835	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2836	0.004	0.45	0.48	0.27	0.4	0.4	0.3	
647320.813	3218.250	2837	0.004	0.48	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	2838	0.004	0.45	0.47	0.26	0.7	0.8	0.4	
647371.125	3218.375	2839	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	2840	0.004	0.44	0.46	0.25	0.4	0.4	0.2	
647320.813	3218.250	2841	0.004	0.44	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	2842	0.004	0.44	0.46	0.24	0.7	0.8	0.4	
647371.125	3218.375	2843	0.004	0.44	0.46	0.24	0.4	0.4	0.2	
647371.125	3218.375	2844	0.004	0.44	0.45	0.24	0.4	0.4	0.2	
647320.813	3218.250	2845	0.004	0.44	0.45	0.23	0.7	0.7	0.4	
647371.125	3218.375	2846	0.004	0.44	0.45	0.23	1.2	1.2	0.6	
647371.125	3218.375	2847	0.004	0.44	0.45	0.23	1.6	1.6	0.8	
647371.125	3218.375	2848	0.040	0.44	0.45	0.24	11.5	11.8	6.3	
647320.813	3218.250	2849	0.004	0.44	0.46	0.24	1.6	1.6	0.9	
647371.125	3218.375	2850	0.030	0.44	0.45	0.24	11.8	12.0	6.4	

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647371.125	3218.375	2651	0.030	0.43	0.45	0.23	8.4	8.8	4.5	
647371.125	3218.375	2652	0.030	0.43	0.45	0.23	8.4	8.8	4.5	
647320.813	3218.250	2653	0.030	0.43	0.45	0.23	5.4	5.6	2.9	
647371.125	3218.375	2654	0.045	0.43	0.45	0.23	12.6	13.2	6.8	
647371.125	3218.375	2655	0.045	0.43	0.46	0.24	24.1	25.8	13.5	
647371.125	3218.375	2656	0.045	0.43	0.46	0.24	39.3	42.1	21.9	
647320.813	3218.250	2657	0.009	0.44	0.46	0.25	1.6	1.7	0.9	
647371.125	3218.375	2658	0.009	0.44	0.46	0.25	1.6	1.7	0.9	
647371.125	3218.375	2659	0.009	0.44	0.47	0.25	0.9	1.0	0.5	
647371.125	3218.375	2660	0.045	0.43	0.47	0.24	24.1	26.4	13.5	
647320.813	3218.250	2661	0.045	0.43	0.47	0.25	31.3	34.2	18.2	
647371.125	3218.375	2662	0.024	0.43	0.48	0.26	4.3	4.8	2.6	
647371.125	3218.375	2663	0.024	0.43	0.48	0.26	9.2	10.3	5.6	
647371.125	3218.375	2664	0.024	0.43	0.47	0.27	4.3	4.7	2.7	
647320.813	3218.250	2665	0.024	0.43	0.47	0.27	16.7	18.2	10.5	
647371.125	3218.375	2666	0.024	0.44	0.49	0.28	6.9	7.7	4.4	
647371.125	3218.375	2667	0.024	0.44	0.48	0.28	13.2	14.4	8.4	
647371.125	3218.375	2668	0.024	0.44	0.48	0.29	9.4	10.3	6.2	
647320.813	3218.250	2669	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	2670	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647371.125	3218.375	2671	0.024	0.44	0.49	0.30	13.2	14.7	9.0	
647371.125	3218.375	2672	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647320.813	3218.250	2673	0.024	0.44	0.49	0.31	2.4	2.7	1.7	
647371.125	3218.375	2674	0.024	0.44	0.49	0.31	2.4	2.7	1.7	
647371.125	3218.375	2675	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647371.125	3218.375	2676	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647320.813	3218.250	2677	0.024	0.44	0.49	0.33	2.4	2.7	1.8	
647371.125	3218.375	2678	0.024	0.44	0.49	0.34	4.4	4.9	3.4	
558852.750	2972.540	2679	0.024	0.44	0.49	0.33	2.4	2.7	1.8	
596164.500	3033.084	2680	0.024	0.41	0.46	0.37	6.4	7.2	5.8	
647371.125	3218.375	2681	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647320.813	3218.250	2682	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647371.125	3218.375	2683	0.025	0.40	0.45	0.38	2.3	2.6	2.1	
647371.125	3218.375	2684	0.025	0.40	0.44	0.36	4.2	4.6	3.7	
458603.875	2852.959	2685	0.025	0.39	0.43	0.37	6.4	7.0	6.0	
180346.438	2323.015	2686	0.024	0.41	0.46	0.37	2.3	2.6	2.1	
272238.125	2329.258	2687	0.024	0.44	0.49	0.33	2.4	2.7	1.8	
203167.813	2118.727	2688	0.024	0.44	0.49	0.34	2.4	2.7	1.9	
124006.125	1923.036	2689	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
13934.750	552.284	2690	0.025	0.39	0.43	0.37	4.1	4.5	3.8	
31306.094	1413.689	2691	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
5635.688	1070.441	2692	0.001	0.41	0.46	0.38	0.3	0.3	0.2	
122045.070	1742.511	2693	0.005	0.51	0.51	0.39	1.1	1.1	0.8	
493182.469	2909.552	2694	0.005	0.51	0.51	0.39	0.6	0.6	0.5	
647748.250	3219.313	2695	0.004	0.51	0.52	0.39	1.8	1.9	1.4	
647773.438	3219.375	2696	0.004	0.51	0.52	0.39	1.3	1.4	1.0	
647748.250	3219.313	2697	0.004	0.51	0.52	0.39	0.5	0.5	0.4	
647773.438	3219.375	2698	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647748.250	3219.313	2699	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647773.438	3219.375	2700	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647748.250	3219.313	2701	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647773.438	3219.375	2702	0.004	0.50	0.51	0.38	0.5	0.5	0.4	

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647748.250	3219.313	2703	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647773.438	3219.375	2704	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647748.250	3219.313	2705	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647773.438	3219.375	2706	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647748.250	3219.313	2707	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647773.438	3219.375	2708	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647748.250	3219.313	2709	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647773.438	3219.375	2710	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647748.250	3219.313	2711	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647748.250	3219.313	2712	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647773.438	3219.375	2713	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647773.438	3219.375	2714	0.004	0.49	0.52	0.33	0.5	0.5	0.3	
647773.438	3219.375	2715	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647723.125	3219.250	2716	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647773.438	3219.375	2717	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647773.438	3219.375	2718	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647773.438	3219.375	2719	0.004	0.49	0.52	0.31	0.5	0.5	0.3	
647723.125	3219.250	2720	0.004	0.49	0.52	0.31	0.8	0.9	0.5	
647773.438	3219.375	2721	0.004	0.50	0.52	0.31	1.3	1.4	0.8	
647773.438	3219.375	2722	0.004	0.50	0.52	0.30	1.8	1.9	1.1	
647773.438	3219.375	2723	0.004	0.49	0.52	0.30	1.3	1.4	0.8	
647723.125	3219.250	2724	0.004	0.49	0.52	0.29	0.8	0.9	0.5	
647773.438	3219.375	2725	0.004	0.49	0.52	0.29	4.0	4.2	2.4	
647773.438	3219.375	2726	0.004	0.49	0.52	0.29	1.7	1.9	1.0	
647773.438	3219.375	2727	0.004	0.49	0.52	0.29	1.3	1.4	0.8	
647723.125	3219.250	2728	0.004	0.49	0.52	0.29	0.8	0.9	0.5	
647773.438	3219.375	2729	0.004	0.49	0.53	0.29	0.5	0.5	0.3	
647773.438	3219.375	2730	0.004	0.49	0.53	0.29	0.8	0.9	0.5	
647773.438	3219.375	2731	0.004	0.48	0.53	0.28	0.8	0.9	0.5	
647723.125	3219.250	2732	0.004	0.48	0.53	0.28	0.8	0.9	0.5	
647773.438	3219.375	2733	0.004	0.48	0.53	0.28	0.4	0.5	0.3	
647773.438	3219.375	2734	0.004	0.48	0.53	0.28	0.4	0.5	0.3	
647773.438	3219.375	2735	0.004	0.47	0.53	0.28	0.4	0.5	0.3	
647723.125	3219.250	2736	0.004	0.47	0.53	0.28	0.4	0.5	0.3	
647773.438	3219.375	2737	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647773.438	3219.375	2738	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647773.438	3219.375	2739	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647723.125	3219.250	2740	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647773.438	3219.375	2741	0.004	0.46	0.52	0.27	0.4	0.5	0.3	
647773.438	3219.375	2742	0.004	0.46	0.51	0.27	0.4	0.5	0.3	
647773.438	3219.375	2743	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647723.125	3219.250	2744	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647773.438	3219.375	2745	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2746	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647773.438	3219.375	2747	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647723.125	3219.250	2748	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647773.438	3219.375	2749	0.004	0.46	0.49	0.27	0.8	0.8	0.4	
647773.438	3219.375	2750	0.004	0.46	0.48	0.26	0.8	0.8	0.4	
647773.438	3219.375	2751	0.004	0.45	0.47	0.26	0.7	0.8	0.4	
647723.125	3219.250	2752	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647773.438	3219.375	2753	0.004	0.44	0.47	0.24	0.7	0.8	0.4	
647773.438	3219.375	2754	0.004	0.44	0.46	0.24	0.7	0.8	0.4	

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647773.438	3219.375	2755	0.004	0.44	0.46	0.24	0.7	0.8	0.4	
647723.125	3219.250	2756	0.004	0.44	0.45	0.23	0.7	0.7	0.4	
647773.438	3219.375	2757	0.004	0.44	0.45	0.24	0.4	0.4	0.2	
647773.438	3219.375	2758	0.004	0.44	0.45	0.24	2.8	2.9	1.8	
647773.438	3219.375	2759	0.004	0.44	0.45	0.23	2.2	2.2	1.1	
647723.125	3219.250	2760	0.004	0.44	0.46	0.24	1.8	1.6	0.9	
647773.438	3219.375	2761	0.004	0.44	0.46	0.24	0.4	0.4	0.2	
647773.438	3219.375	2762	0.004	0.43	0.45	0.24	1.5	1.6	0.9	
647773.438	3219.375	2763	0.004	0.43	0.45	0.23	1.1	1.2	0.6	
647723.125	3219.250	2764	0.030	0.43	0.45	0.23	5.4	5.6	2.9	
647773.438	3219.375	2765	0.030	0.43	0.45	0.23	5.4	5.6	2.9	
647773.438	3219.375	2766	0.030	0.43	0.46	0.23	3.0	3.2	1.6	
647773.438	3219.375	2767	0.030	0.43	0.46	0.23	20.8	22.3	11.2	
647723.125	3219.250	2768	0.009	0.43	0.46	0.24	6.3	6.7	3.5	
647773.438	3219.375	2769	0.009	0.44	0.47	0.24	2.6	2.8	1.4	
647773.438	3219.375	2770	0.009	0.44	0.47	0.25	2.6	2.8	1.5	
647773.438	3219.375	2771	0.045	0.44	0.47	0.25	24.7	26.4	14.0	
647723.125	3219.250	2772	0.045	0.44	0.47	0.25	17.6	18.8	10.0	
647773.438	3219.375	2773	0.045	0.43	0.47	0.25	4.5	4.9	2.6	
647773.438	3219.375	2774	0.024	0.43	0.47	0.26	6.7	7.4	4.1	
647773.438	3219.375	2775	0.024	0.43	0.48	0.26	16.7	18.6	10.1	
647723.125	3219.250	2776	0.024	0.43	0.47	0.27	9.2	10.1	5.8	
647773.438	3219.375	2777	0.024	0.43	0.48	0.27	21.0	23.4	13.2	
647773.438	3219.375	2778	0.024	0.44	0.49	0.28	9.4	10.5	6.0	
647773.438	3219.375	2779	0.024	0.44	0.49	0.29	2.4	2.7	1.6	
647723.125	3219.250	2780	0.024	0.44	0.48	0.29	4.4	4.8	2.9	
647773.438	3219.375	2781	0.024	0.44	0.48	0.29	4.4	4.8	2.9	
647773.438	3219.375	2782	0.024	0.44	0.49	0.29	6.9	7.7	4.5	
647773.438	3219.375	2783	0.024	0.44	0.49	0.30	4.4	4.9	3.0	
647723.125	3219.250	2784	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647773.438	3219.375	2785	0.024	0.44	0.49	0.31	6.9	7.7	4.9	
647773.438	3219.375	2786	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647773.438	3219.375	2787	0.024	0.44	0.49	0.32	2.4	2.7	1.8	
647723.125	3219.250	2788	0.024	0.44	0.49	0.32	6.9	7.7	5.0	
647773.438	3219.375	2789	0.024	0.44	0.49	0.34	6.9	7.7	5.3	
647773.438	3219.375	2790	0.024	0.44	0.49	0.34	4.4	4.9	3.4	
647773.438	3219.375	2791	0.024	0.44	0.49	0.33	2.4	2.7	1.8	
647723.125	3219.250	2792	0.024	0.43	0.49	0.33	2.4	2.7	1.8	
647773.438	3219.375	2793	0.024	0.43	0.49	0.34	2.4	2.7	1.9	
646171.000	3199.417	2794	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
646111.000	3207.986	2795	0.001	0.41	0.46	0.36	0.3	0.3	0.2	
647773.438	3219.375	2796	0.024	0.41	0.46	0.36	6.4	7.2	5.6	
647773.438	3219.375	2797	0.024	0.41	0.46	0.37	4.1	4.6	3.7	
647773.438	3219.375	2798	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647723.125	3219.250	2799	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647773.438	3219.375	2800	0.025	0.40	0.45	0.38	2.3	2.6	2.1	
647773.438	3219.375	2801	0.025	0.40	0.44	0.38	2.3	2.5	2.1	
647773.438	3219.375	2802	0.025	0.38	0.43	0.38	2.3	2.5	2.1	
282855.625	2428.818	2803	0.009	0.39	0.43	0.37	0.8	0.9	0.8	
464071.563	2849.373	2804	0.024	0.42	0.47	0.38	6.6	7.4	5.6	
488417.750	2884.375	2805	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
185100.297	2169.543	2806	0.024	0.42	0.48	0.35	2.3	2.7	1.9	

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41804.250	1022.417	2807	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
18893.750	780.883	2808	0.024	0.42	0.47	0.36	6.6	7.4	5.6	
1896.648	209.210	2809	0.004	0.51	0.51	0.39	1.3	1.3	1.0	
233802.719	2382.413	2810	0.004	0.51	0.51	0.39	1.3	1.3	1.0	
603490.250	3048.880	2811	0.004	0.51	0.52	0.39	0.8	0.9	0.6	
647345.938	3218.313	2812	0.004	0.50	0.51	0.39	0.5	0.5	0.4	
647371.125	3218.375	2813	0.004	0.50	0.51	0.39	0.5	0.5	0.4	
647345.938	3218.313	2814	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647371.125	3218.375	2815	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647345.938	3218.313	2816	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647371.125	3218.375	2817	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647345.938	3218.313	2818	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647371.125	3218.375	2819	0.004	0.50	0.51	0.37	0.5	0.5	0.3	
647345.938	3218.313	2820	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647371.125	3218.375	2821	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647345.938	3218.313	2822	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647371.125	3218.375	2823	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647345.938	3218.313	2824	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647371.125	3218.375	2825	0.004	0.49	0.51	0.38	0.5	0.5	0.3	
647345.938	3218.313	2826	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647345.938	3218.313	2827	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	2828	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	2829	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647371.125	3218.375	2830	0.004	0.49	0.52	0.33	0.5	0.5	0.3	
647320.813	3218.250	2831	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647371.125	3218.375	2832	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647371.125	3218.375	2833	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647371.125	3218.375	2834	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647320.813	3218.250	2835	0.004	0.49	0.52	0.31	0.8	0.9	0.5	
647371.125	3218.375	2836	0.004	0.49	0.52	0.31	1.3	1.4	0.8	
647371.125	3218.375	2837	0.004	0.49	0.52	0.30	1.3	1.4	0.8	
647371.125	3218.375	2838	0.004	0.49	0.52	0.30	1.7	1.9	1.1	
647320.813	3218.250	2839	0.004	0.49	0.52	0.30	1.7	1.9	1.1	
647371.125	3218.375	2840	0.004	0.49	0.52	0.29	3.2	3.4	1.9	
647371.125	3218.375	2841	0.004	0.49	0.53	0.29	2.4	2.6	1.4	
647371.125	3218.375	2842	0.004	0.49	0.53	0.29	0.8	0.9	0.5	
647320.813	3218.250	2843	0.004	0.48	0.53	0.29	0.4	0.5	0.3	
647371.125	3218.375	2844	0.004	0.48	0.54	0.29	0.4	0.5	0.3	
647371.125	3218.375	2845	0.004	0.48	0.54	0.28	1.3	1.4	0.7	
647371.125	3218.375	2846	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647320.813	3218.250	2847	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2848	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2849	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2850	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647320.813	3218.250	2851	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2852	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647371.125	3218.375	2853	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647371.125	3218.375	2854	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647320.813	3218.250	2855	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647371.125	3218.375	2856	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647371.125	3218.375	2857	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647371.125	3218.375	2858	0.004	0.46	0.51	0.27	0.4	0.5	0.3	

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647320.813	3218.250	2859	0.004	0.12	0.13	0.07	0.1	0.1	0.1	
647371.125	3218.375	2860	0.004	0.46	0.50	0.26	0.4	0.5	0.3	
647371.125	3218.375	2861	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2862	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647320.813	3218.250	2863	0.004	0.45	0.48	0.26	0.4	0.4	0.2	
647371.125	3218.375	2864	0.004	0.45	0.48	0.26	0.7	0.8	0.4	
647371.125	3218.375	2865	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647371.125	3218.375	2866	0.005	0.46	0.48	0.26	1.0	1.0	0.5	
647320.813	3218.250	2867	0.004	0.46	0.47	0.26	0.4	0.4	0.2	
647371.125	3218.375	2868	0.004	0.46	0.47	0.25	0.4	0.4	0.2	
647371.125	3218.375	2869	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	2870	0.004	0.44	0.46	0.24	0.7	0.8	0.4	
647320.813	3218.250	2871	0.004	0.44	0.46	0.23	0.7	0.8	0.4	
647371.125	3218.375	2872	0.004	0.44	0.46	0.24	1.2	1.2	0.6	
647371.125	3218.375	2873	0.004	0.44	0.46	0.24	2.8	3.0	1.6	
647371.125	3218.375	2874	0.004	0.44	0.46	0.24	1.6	1.6	0.9	
647320.813	3218.250	2875	0.004	0.44	0.46	0.24	2.8	3.0	1.6	
647371.125	3218.375	2876	0.004	0.44	0.46	0.23	2.8	3.0	1.5	
647371.125	3218.375	2877	0.004	0.44	0.46	0.24	1.6	1.6	0.9	
647371.125	3218.375	2878	0.004	0.43	0.45	0.24	0.7	0.7	0.4	
647320.813	3218.250	2879	0.030	0.43	0.45	0.24	3.0	3.1	1.7	
647371.125	3218.375	2880	0.030	0.43	0.46	0.23	3.0	3.2	1.6	
647371.125	3218.375	2881	0.030	0.43	0.46	0.23	3.0	3.2	1.6	
647371.125	3218.375	2882	0.030	0.43	0.46	0.23	5.4	5.7	2.9	
647320.813	3218.250	2883	0.045	0.43	0.46	0.23	31.3	33.5	16.7	
647371.125	3218.375	2884	0.045	0.43	0.47	0.24	12.6	13.6	7.1	
647371.125	3218.375	2885	0.045	0.44	0.47	0.24	12.9	13.6	7.1	
647371.125	3218.375	2886	0.045	0.44	0.47	0.25	17.6	18.8	10.0	
647320.813	3218.250	2887	0.045	0.44	0.47	0.25	8.2	8.8	4.7	
647371.125	3218.375	2888	0.045	0.44	0.48	0.25	4.6	5.0	2.6	
647371.125	3218.375	2889	0.024	0.44	0.48	0.25	2.4	2.7	1.4	
647371.125	3218.375	2890	0.024	0.43	0.47	0.28	21.0	22.9	12.7	
647320.813	3218.250	2891	0.024	0.43	0.47	0.28	12.9	14.1	7.8	
647371.125	3218.375	2892	0.024	0.43	0.48	0.27	6.7	7.5	4.2	
647371.125	3218.375	2893	0.024	0.44	0.49	0.28	4.4	4.9	2.8	
647371.125	3218.375	2894	0.024	0.44	0.49	0.28	2.4	2.7	1.6	
647320.813	3218.250	2895	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647371.125	3218.375	2896	0.024	0.44	0.48	0.29	2.4	2.7	1.6	
647371.125	3218.375	2897	0.024	0.44	0.49	0.29	6.9	7.7	4.5	
647371.125	3218.375	2898	0.024	0.44	0.49	0.29	2.4	2.7	1.6	
647320.813	3218.250	2899	0.024	0.44	0.49	0.30	4.4	4.9	3.0	
647371.125	3218.375	2900	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647371.125	3218.375	2901	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647371.125	3218.375	2902	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647320.813	3218.250	2903	0.024	0.44	0.49	0.32	6.9	7.7	5.0	
647371.125	3218.375	2904	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647371.125	3218.375	2905	0.024	0.44	0.49	0.34	2.4	2.7	1.9	
647371.125	3218.375	2906	0.024	0.44	0.49	0.34	2.4	2.7	1.9	
647320.813	3218.250	2907	0.024	0.43	0.49	0.33	2.4	2.7	1.8	
647371.125	3218.375	2908	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	2909	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
647371.125	3218.375	2910	0.024	0.43	0.48	0.34	2.4	2.7	1.9	

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647320.813	3218.250	2811	0.024	0.42	0.48	0.35	2.3	2.7	1.9	
625638.000	3136.250	2812	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
604858.500	3172.883	2813	0.024	0.42	0.47	0.36	6.6	7.4	5.6	
647371.125	3218.375	2814	0.024	0.42	0.47	0.36	4.2	4.7	3.6	
647320.813	3218.250	2815	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	2816	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	2817	0.024	0.41	0.46	0.37	2.3	2.6	2.1	
647371.125	3218.375	2818	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647320.813	3218.250	2819	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	2820	0.025	0.40	0.45	0.36	2.3	2.6	2.1	
647371.125	3218.375	2821	0.025	0.40	0.45	0.36	2.3	2.6	2.1	
647371.125	3218.375	2822	0.001	0.40	0.44	0.36	0.1	0.1	0.1	
588911.125	3048.671	2823	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
43550.156	1071.881	2824	0.025	0.39	0.43	0.37	4.1	4.5	3.8	
89853.883	1304.778	2825	0.004	0.51	0.52	0.40	0.8	0.9	0.7	
473423.875	2882.128	2826	0.004	0.50	0.51	0.39	0.5	0.5	0.4	
647371.125	3218.375	2827	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647345.938	3218.313	2828	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647371.125	3218.375	2829	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647345.938	3218.313	2830	0.004	0.50	0.51	0.39	0.5	0.5	0.4	
647371.125	3218.375	2831	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647345.938	3218.313	2832	0.004	0.50	0.51	0.38	0.5	0.5	0.4	
647371.125	3218.375	2833	0.004	0.49	0.51	0.37	0.8	0.8	0.6	
647345.938	3218.313	2834	0.004	0.49	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	2835	0.004	0.49	0.51	0.36	0.8	0.8	0.6	
647345.938	3218.313	2836	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647371.125	3218.375	2837	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647345.938	3218.313	2838	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647371.125	3218.375	2839	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647345.938	3218.313	2840	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647345.938	3218.313	2841	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647371.125	3218.375	2842	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	2843	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647371.125	3218.375	[illegible]	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647320.813	3218.250	2845	0.004	0.49	0.53	0.33	0.5	0.5	0.3	
647371.125	3218.375	2846	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647371.125	3218.375	2847	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647371.125	3218.375	2848	0.004	0.49	0.52	0.32	0.8	0.9	0.5	
647320.813	3218.250	2849	0.004	0.49	0.52	0.32	1.3	1.4	0.8	
647371.125	3218.375	2850	0.004	0.49	0.52	0.31	0.8	0.9	0.5	
647371.125	3218.375	2851	0.004	0.49	0.52	0.31	1.3	1.4	0.8	
647371.125	3218.375	2852	0.004	0.49	0.52	0.30	1.3	1.4	0.8	
647320.813	3218.250	2853	0.004	0.49	0.53	0.30	1.3	1.4	0.8	
647371.125	3218.375	2854	0.004	0.49	0.53	0.30	1.7	1.9	1.1	
647371.125	3218.375	2855	0.004	0.49	0.53	0.29	2.4	2.6	1.4	
647371.125	3218.375	2856	0.004	0.49	0.54	0.29	0.8	0.9	0.5	
647320.813	3218.250	2857	0.004	0.49	0.54	0.29	0.8	0.9	0.5	
647371.125	3218.375	2858	0.004	0.49	0.54	0.29	0.8	0.9	0.5	
647371.125	3218.375	2859	0.004	0.48	0.55	0.29	1.7	2.0	1.0	
647371.125	3218.375	2860	0.004	0.48	0.55	0.29	1.7	2.0	1.0	
647320.813	3218.250	2861	0.004	0.48	0.56	0.29	1.3	1.4	0.8	
647371.125	3218.375	2862	0.004	0.48	0.55	0.29	0.8	0.9	0.5	

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647371.125	3218.375	2963	0.004	0.48	0.55	0.28	0.8	0.9	0.5	
647371.125	3218.375	2964	0.004	0.48	0.55	0.28	0.8	0.9	0.5	
647320.813	3218.250	2965	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2966	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	2967	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647371.125	3218.375	2968	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647320.813	3218.250	2969	0.004	0.47	0.53	0.27	0.4	0.5	0.3	
647371.125	3218.375	2970	0.004	0.47	0.52	0.28	0.4	0.5	0.3	
647371.125	3218.375	2971	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647371.125	3218.375	2972	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647320.813	3218.250	2973	0.004	0.46	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	2974	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	2975	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	2976	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647320.813	3218.250	2977	0.004	0.45	0.49	0.26	0.7	0.8	0.4	
647371.125	3218.375	2978	0.004	0.45	0.48	0.26	0.7	0.8	0.4	
647371.125	3218.375	2979	0.004	0.45	0.48	0.26	0.7	0.8	0.4	
647371.125	3218.375	2980	0.004	0.46	0.48	0.26	0.8	0.8	0.4	
647320.813	3218.250	2981	0.004	0.46	0.48	0.26	0.8	0.8	0.4	
647371.125	3218.375	2982	0.004	0.46	0.47	0.25	1.2	1.2	0.7	
647371.125	3218.375	2983	0.004	0.46	0.47	0.25	1.2	1.2	0.7	
647371.125	3218.375	2984	0.004	0.45	0.47	0.25	1.2	1.2	0.7	
647320.813	3218.250	2985	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	2986	0.004	0.45	0.46	0.24	1.2	1.2	0.6	
647371.125	3218.375	2987	0.004	0.45	0.46	0.24	1.6	1.6	0.9	
647371.125	3218.375	2988	0.004	0.44	0.46	0.24	1.2	1.2	0.6	
647320.813	3218.250	2989	0.004	0.44	0.46	0.23	4.4	4.6	2.3	
647371.125	3218.375	2990	0.004	0.44	0.47	0.24	1.6	1.7	0.9	
647371.125	3218.375	2991	0.004	0.44	0.47	0.24	0.7	0.8	0.4	
647371.125	3218.375	2992	0.004	0.44	0.45	0.24	0.4	0.4	0.2	
647320.813	3218.250	2993	0.004	0.43	0.46	0.24	0.4	0.4	0.2	
647371.125	3218.375	2994	0.004	0.43	0.46	0.23	0.4	0.4	0.2	
647371.125	3218.375	2995	0.030	0.43	0.46	0.23	3.0	3.2	1.6	
647371.125	3218.375	2996	0.030	0.43	0.46	0.23	3.0	3.2	1.6	
647320.813	3218.250	2997	0.030	0.43	0.47	0.23	11.5	12.6	6.1	
647371.125	3218.375	2998	0.045	0.43	0.47	0.23	17.2	18.8	9.2	
647371.125	3218.375	2999	0.045	0.43	0.47	0.24	24.1	26.4	13.5	
647371.125	3218.375	3000	0.045	0.44	0.47	0.24	17.6	18.8	9.6	
647320.813	3218.250	3001	0.045	0.44	0.47	0.25	8.2	8.8	4.7	
647371.125	3218.375	3002	0.045	0.44	0.48	0.25	4.6	5.0	2.6	
647371.125	3218.375	3003	0.045	0.44	0.48	0.25	12.9	14.1	7.4	
647371.125	3218.375	3004	0.028	0.44	0.48	0.25	15.4	16.8	8.7	
647320.813	3218.250	3005	0.024	0.43	0.47	0.26	12.9	14.1	7.8	
647371.125	3218.375	3006	0.024	0.43	0.47	0.27	12.9	14.1	8.1	
647371.125	3218.375	3007	0.024	0.43	0.48	0.27	6.7	7.5	4.2	
647371.125	3218.375	3008	0.024	0.44	0.49	0.29	2.4	2.7	1.6	
647320.813	3218.250	3009	0.024	0.44	0.49	0.28	13.2	14.7	8.4	
647371.125	3218.375	3010	0.024	0.44	0.49	0.29	13.2	14.7	8.7	
647371.125	3218.375	3011	0.024	0.44	0.48	0.30	17.1	18.6	11.6	
647371.125	3218.375	3012	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647320.813	3218.250	3013	0.024	0.44	0.49	0.30	9.4	10.5	6.4	
647371.125	3218.375	3014	0.024	0.44	0.49	0.30	9.4	10.5	6.4	

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647371.125	3218.375	3015	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647371.125	3218.375	3016	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647320.813	3218.250	3017	0.024	0.44	0.49	0.32	13.2	14.7	8.8	
647371.125	3218.375	3018	0.024	0.44	0.49	0.33	13.2	14.7	8.8	
647371.125	3218.375	3019	0.024	0.44	0.49	0.33	4.4	4.9	3.3	
647371.125	3218.375	3020	0.024	0.43	0.49	0.33	2.4	2.7	1.8	
647320.813	3218.250	3021	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3022	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3023	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3024	0.024	0.43	0.48	0.34	2.4	2.7	1.9	
647320.813	3218.250	3025	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3026	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647371.125	3218.375	3027	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647371.125	3218.375	3028	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647320.813	3218.250	3029	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3030	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	3031	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	3032	0.001	0.40	0.45	0.36	0.1	0.1	0.1	
647320.813	3218.250	3033	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3034	0.025	0.40	0.45	0.37	2.3	2.6	2.1	
647371.125	3218.375	3035	0.025	0.40	0.45	0.36	2.3	2.6	2.1	
647371.125	3218.375	3036	0.040	0.40	0.44	0.36	3.7	4.1	3.3	
647371.125	3218.375	3037	0.025	0.39	0.44	0.36	2.3	2.5	2.1	
410014.156	2849.898	3038	0.025	0.39	0.43	0.37	6.4	7.0	6.0	
2278.500	231.657	3039	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
12456.000	542.089	3040	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
481666.063	2863.752	3041	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
647748.250	3219.313	3042	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
647773.438	3219.375	3043	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647748.250	3219.313	3044	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647773.438	3219.375	3045	0.004	0.50	0.51	0.39	0.8	0.8	0.6	
647748.250	3219.313	3046	0.004	0.50	0.52	0.39	0.8	0.9	0.6	
647773.438	3219.375	3047	0.004	0.49	0.51	0.38	0.8	0.8	0.6	
647748.250	3219.313	3048	0.004	0.49	0.51	0.38	0.8	0.8	0.6	
647773.438	3219.375	3049	0.004	0.49	0.51	0.37	0.8	0.8	0.6	
647748.250	3219.313	3050	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647773.438	3219.375	3051	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647748.250	3219.313	3052	0.004	0.49	0.51	0.35	0.5	0.5	0.3	
647773.438	3219.375	3053	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647748.250	3219.313	3054	0.004	0.49	0.51	0.36	1.3	1.3	0.9	
647748.250	3219.313	3055	0.004	0.49	0.51	0.35	1.3	1.3	0.9	
647773.438	3219.375	3056	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647773.438	3219.375	3057	0.004	0.49	0.51	0.34	0.8	0.8	0.6	
647773.438	3219.375	3058	0.004	0.49	0.51	0.34	0.5	0.5	0.3	
647723.125	3219.250	3059	0.004	0.49	0.51	0.33	0.5	0.5	0.3	
647773.438	3219.375	3060	0.004	0.49	0.53	0.33	0.5	0.5	0.3	
647773.438	3219.375	3061	0.004	0.49	0.52	0.32	0.5	0.5	0.3	
647773.438	3219.375	3062	0.004	0.49	0.52	0.32	0.8	0.9	0.5	
647723.125	3219.250	3063	0.004	0.49	0.52	0.32	1.3	1.4	0.8	
647773.438	3219.375	3064	0.004	0.49	0.52	0.32	0.8	0.9	0.5	
647773.438	3219.375	3065	0.004	0.49	0.53	0.31	1.3	1.4	0.8	
647773.438	3219.375	3066	0.004	0.49	0.53	0.31	2.4	2.6	1.5	

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647723.125	3219.250	3067	0.004	0.49	0.53	0.30	3.2	3.4	1.9	
647773.438	3219.375	3068	0.004	0.49	0.54	0.30	1.3	1.4	0.8	
647773.438	3219.375	3069	0.004	0.49	0.54	0.30	1.7	1.9	1.1	
647773.438	3219.375	3070	0.004	0.49	0.55	0.29	1.3	1.4	0.8	
647723.125	3219.250	3071	0.004	0.49	0.55	0.29	0.8	0.9	0.5	
647773.438	3219.375	3072	0.004	0.49	0.55	0.29	0.5	0.5	0.3	
647773.438	3219.375	3073	0.004	0.49	0.56	0.29	0.8	0.9	0.5	
647773.438	3219.375	3074	0.004	0.49	0.56	0.29	1.3	1.5	0.8	
647723.125	3219.250	3075	0.004	0.49	0.56	0.29	1.7	2.0	1.0	
647773.438	3219.375	3076	0.004	0.49	0.56	0.29	1.3	1.5	0.8	
647773.438	3219.375	3077	0.004	0.49	0.56	0.29	0.8	0.9	0.5	
647773.438	3219.375	3078	0.004	0.48	0.55	0.28	0.4	0.5	0.3	
647723.125	3219.250	3079	0.004	0.48	0.55	0.28	0.4	0.5	0.3	
647773.438	3219.375	3080	0.004	0.48	0.55	0.28	0.4	0.5	0.3	
647773.438	3219.375	3081	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647773.438	3219.375	3082	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647723.125	3219.250	3083	0.004	0.47	0.53	0.28	0.8	0.9	0.5	
647773.438	3219.375	3084	0.004	0.47	0.53	0.27	0.8	0.9	0.4	
647773.438	3219.375	3085	0.004	0.47	0.52	0.27	0.8	0.9	0.4	
647773.438	3219.375	3086	0.004	0.47	0.52	0.27	0.4	0.5	0.3	
647723.125	3219.250	3087	0.004	0.46	0.51	0.28	0.4	0.5	0.3	
647773.438	3219.375	3088	0.004	0.46	0.50	0.28	0.8	0.8	0.5	
647773.438	3219.375	3089	0.004	0.45	0.50	0.27	0.8	0.8	0.4	
647773.438	3219.375	3090	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647723.125	3219.250	3091	0.004	0.46	0.50	0.27	0.8	0.8	0.4	
647773.438	3219.375	3092	0.004	0.46	0.49	0.27	0.8	0.8	0.4	
647773.438	3219.375	3093	0.004	0.45	0.48	0.26	1.2	1.3	0.7	
647773.438	3219.375	3094	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647723.125	3219.250	3095	0.004	0.46	0.48	0.26	0.4	0.4	0.2	
647773.438	3219.375	3096	0.004	0.46	0.48	0.26	0.8	0.8	0.4	
647773.438	3219.375	3097	0.004	0.46	0.47	0.25	0.4	0.4	0.2	
647773.438	3219.375	3098	0.004	0.46	0.47	0.25	0.4	0.4	0.2	
647723.125	3219.250	3099	0.004	0.45	0.47	0.25	0.4	0.4	0.2	
647773.438	3219.375	3100	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647773.438	3219.375	3101	0.004	0.45	0.47	0.24	1.2	1.2	0.6	
647773.438	3219.375	3102	0.004	0.45	0.47	0.24	1.2	1.2	0.6	
647723.125	3219.250	3103	0.004	0.45	0.47	0.24	2.9	3.0	1.6	
647773.438	3219.375	3104	0.004	0.44	0.47	0.24	1.6	1.7	0.9	
647773.438	3219.375	3105	0.004	0.44	0.47	0.24	0.7	0.8	0.4	
647773.438	3219.375	3106	0.004	0.44	0.47	0.24	0.4	0.4	0.2	
647723.125	3219.250	3107	0.004	0.43	0.46	0.23	0.4	0.4	0.2	
647773.438	3219.375	3108	0.004	0.43	0.46	0.23	0.4	0.4	0.2	
647773.438	3219.375	3109	0.004	0.43	0.46	0.23	0.4	0.4	0.2	
647773.438	3219.375	3110	0.004	0.43	0.46	0.23	0.4	0.4	0.2	
647723.125	3219.250	3111	0.004	0.43	0.47	0.23	0.7	0.8	0.4	
647773.438	3219.375	3112	0.030	0.43	0.47	0.23	8.4	9.2	4.5	
647773.438	3219.375	3113	0.030	0.43	0.47	0.23	16.1	17.6	8.6	
647773.438	3219.375	3114	0.045	0.43	0.47	0.24	12.6	13.8	7.1	
647723.125	3219.250	3115	0.045	0.44	0.47	0.24	4.8	4.9	2.5	
647773.438	3219.375	3116	0.045	0.44	0.46	0.25	12.9	14.1	7.4	
647773.438	3219.375	3117	0.028	0.44	0.46	0.26	15.4	16.8	9.1	
647773.438	3219.375	3118	0.028	0.44	0.46	0.25	5.1	5.6	2.9	

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647723.125	3219.250	3119	0.028	0.44	0.46	0.28	8.1	8.8	4.8	
647773.438	3219.375	3120	0.024	0.44	0.46	0.28	6.9	7.5	4.1	
647773.438	3219.375	3121	0.024	0.43	0.46	0.27	6.7	7.5	4.2	
647773.438	3219.375	3122	0.024	0.44	0.49	0.28	4.4	4.9	2.8	
647723.125	3219.250	3123	0.024	0.44	0.49	0.29	13.2	14.7	8.7	
647773.438	3219.375	3124	0.024	0.44	0.46	0.29	4.4	4.8	2.9	
647773.438	3219.375	3125	0.024	0.44	0.49	0.29	9.4	10.5	6.2	
647773.438	3219.375	3126	0.024	0.44	0.46	0.30	4.4	4.8	3.0	
647723.125	3219.250	3127	0.024	0.44	0.46	0.30	6.9	7.5	4.7	
647773.438	3219.375	3128	0.024	0.44	0.49	0.30	6.9	7.7	4.7	
647773.438	3219.375	3129	0.024	0.44	0.49	0.30	4.4	4.9	3.0	
647773.438	3219.375	3130	0.024	0.44	0.49	0.31	4.4	4.9	3.1	
647723.125	3219.250	3131	0.024	0.44	0.49	0.32	4.4	4.9	3.2	
647773.438	3219.375	3132	0.024	0.44	0.49	0.32	13.2	14.7	9.6	
647773.438	3219.375	3133	0.024	0.44	0.49	0.33	9.4	10.5	7.1	
647773.438	3219.375	3134	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647723.125	3219.250	3135	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	3136	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	3137	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	3138	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647723.125	3219.250	3139	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	3140	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647773.438	3219.375	3141	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647773.438	3219.375	3142	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647723.125	3219.250	3143	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647773.438	3219.375	3144	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647773.438	3219.375	3145	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647773.438	3219.375	3146	0.024	0.41	0.46	0.37	2.3	2.6	2.1	
647723.125	3219.250	3147	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	3148	0.025	0.40	0.45	0.36	2.3	2.6	2.1	
647773.438	3219.375	3149	0.001	0.40	0.45	0.36	0.1	0.1	0.1	
647773.438	3219.375	3150	0.025	0.40	0.44	0.36	2.3	2.5	2.1	
647773.438	3219.375	3151	0.025	0.40	0.44	0.37	2.3	2.5	2.1	
647723.125	3219.250	3152	0.025	0.39	0.43	0.37	4.1	4.5	3.8	
492536.750	2976.440	3153	0.025	0.39	0.43	0.37	6.4	7.0	6.0	
255583.438	2285.926	3154	0.025	0.39	0.43	0.37	6.4	7.0	6.0	
5763.750	378.009	3155	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
46807.492	1050.901	3156	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
552083.938	2951.138	3157	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
647371.125	3218.375	3158	0.004	0.50	0.52	0.40	0.5	0.5	0.4	
647345.938	3218.313	3159	0.004	0.50	0.52	0.39	0.5	0.5	0.4	
647371.125	3218.375	3160	0.004	0.50	0.51	0.39	0.8	0.8	0.6	
647345.938	3218.313	3161	0.004	0.49	0.51	0.38	1.3	1.3	1.0	
647371.125	3218.375	3162	0.004	0.49	0.51	0.39	0.8	0.8	0.6	
647345.938	3218.313	3163	0.004	0.49	0.51	0.38	0.8	0.8	0.6	
647371.125	3218.375	3164	0.004	0.49	0.51	0.38	0.8	0.8	0.6	
647345.938	3218.313	3165	0.004	0.49	0.51	0.37	0.8	0.8	0.6	
647371.125	3218.375	3166	0.004	0.49	0.51	0.37	0.5	0.5	0.3	
647345.938	3218.313	3167	0.004	0.49	0.51	0.36	0.5	0.5	0.3	
647371.125	3218.375	3168	0.004	0.49	0.51	0.35	1.3	1.3	0.9	
647345.938	3218.313	3169	0.004	0.49	0.51	0.36	1.3	1.3	0.9	
647345.938	3218.313	3170	0.004	0.49	0.51	0.36	0.8	0.8	0.6	

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647371.125	3218.375	3171	0.004	0.49	0.51	0.35	0.8	0.8	0.6	
647371.125	3218.375	3172	0.004	0.49	0.52	0.35	0.8	0.9	0.6	
647371.125	3218.375	3173	0.004	0.49	0.52	0.34	0.8	0.9	0.6	
647320.813	3218.250	3174	0.004	0.49	0.52	0.33	0.5	0.5	0.3	
647371.125	3218.375	3175	0.004	0.49	0.52	0.33	0.5	0.5	0.3	
647371.125	3218.375	3176	0.004	0.49	0.53	0.33	1.3	1.4	0.9	
647371.125	3218.375	3177	0.004	0.49	0.52	0.32	1.7	1.9	1.1	
647320.813	3218.250	3178	0.004	0.49	0.53	0.32	2.4	2.6	1.6	
647371.125	3218.375	3179	0.004	0.49	0.53	0.32	1.3	1.4	0.8	
647371.125	3218.375	3180	0.004	0.49	0.53	0.32	1.3	1.4	0.8	
647371.125	3218.375	3181	0.004	0.49	0.54	0.31	0.5	0.5	0.3	
647320.813	3218.250	3182	0.004	0.49	0.54	0.31	0.8	0.9	0.5	
647371.125	3218.375	3183	0.004	0.49	0.54	0.30	1.7	1.9	1.1	
647371.125	3218.375	3184	0.004	0.49	0.55	0.30	1.7	2.0	1.1	
647371.125	3218.375	3185	0.004	0.49	0.55	0.30	1.7	2.0	1.1	
647320.813	3218.250	3186	0.004	0.49	0.56	0.30	0.8	0.9	0.5	
647371.125	3218.375	3187	0.004	0.49	0.56	0.29	0.5	0.5	0.3	
647371.125	3218.375	3188	0.004	0.49	0.57	0.29	0.5	0.5	0.3	
647371.125	3218.375	3189	0.004	0.49	0.57	0.29	0.8	0.9	0.5	
647320.813	3218.250	3190	0.004	0.49	0.57	0.29	0.8	0.9	0.5	
647371.125	3218.375	3191	0.005	0.49	0.57	0.29	1.6	1.9	0.9	
647371.125	3218.375	3192	0.004	0.49	0.56	0.29	0.5	0.5	0.3	
647371.125	3218.375	3193	0.004	0.46	0.56	0.29	1.3	1.5	0.8	
647320.813	3218.250	3194	0.004	0.48	0.56	0.28	1.3	1.5	0.7	
647371.125	3218.375	3195	0.004	0.48	0.55	0.28	0.8	0.9	0.5	
647371.125	3218.375	3196	0.004	0.48	0.55	0.28	0.4	0.5	0.3	
647371.125	3218.375	3197	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647320.813	3218.250	3198	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	3199	0.004	0.48	0.53	0.29	0.8	0.9	0.5	
647371.125	3218.375	3200	0.004	0.47	0.53	0.27	0.8	0.9	0.4	
647371.125	3218.375	3201	0.004	0.47	0.52	0.27	0.8	0.9	0.4	
647320.813	3218.250	3202	0.004	0.47	0.52	0.27	1.2	1.4	0.7	
647371.125	3218.375	3203	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647371.125	3218.375	3204	0.004	0.46	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	3205	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647320.813	3218.250	3206	0.004	0.46	0.50	0.27	1.2	1.3	0.7	
647371.125	3218.375	3207	0.004	0.46	0.50	0.27	1.2	1.3	0.7	
647371.125	3218.375	3208	0.004	0.47	0.50	0.27	0.8	0.8	0.4	
647371.125	3218.375	3209	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647320.813	3218.250	3210	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647371.125	3218.375	3211	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647371.125	3218.375	3212	0.004	0.46	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	3213	0.004	0.46	0.48	0.25	1.2	1.3	0.7	
647320.813	3218.250	3214	0.004	0.46	0.48	0.25	0.8	0.8	0.4	
647371.125	3218.375	3215	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	3216	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	3217	0.004	0.45	0.47	0.25	0.4	0.4	0.2	
647320.813	3218.250	3218	0.004	0.45	0.47	0.24	1.6	1.7	0.9	
647371.125	3218.375	3219	0.004	0.45	0.47	0.24	1.6	1.7	0.9	
647371.125	3218.375	3220	0.004	0.45	0.47	0.24	1.2	1.2	0.6	
647371.125	3218.375	3221	0.004	0.45	0.47	0.24	1.2	1.2	0.6	
647320.813	3218.250	3222	0.004	0.43	0.46	0.23	1.1	1.2	0.6	

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647371.125	3218.375	3223	0.004	0.43	0.46	0.23	1.5	1.6	0.8	
647371.125	3218.375	3224	0.004	0.43	0.46	0.23	2.1	2.3	1.1	
647371.125	3218.375	3225	0.004	0.43	0.47	0.23	2.1	2.3	1.1	
647320.813	3218.250	3226	0.030	0.43	0.47	0.22	11.5	12.6	5.9	
647371.125	3218.375	3227	0.030	0.43	0.47	0.23	11.5	12.6	6.1	
647371.125	3218.375	3228	0.030	0.43	0.47	0.23	8.4	8.2	4.5	
647371.125	3218.375	3229	0.045	0.43	0.47	0.23	4.5	4.9	2.4	
647320.813	3218.250	3230	0.045	0.43	0.48	0.24	4.5	5.0	2.5	
647371.125	3218.375	3231	0.045	0.44	0.48	0.24	17.6	18.2	9.6	
647371.125	3218.375	3232	0.028	0.44	0.48	0.25	15.4	16.8	8.7	
647371.125	3218.375	3233	0.028	0.44	0.48	0.26	8.1	8.6	4.8	
647320.813	3218.250	3234	0.028	0.44	0.48	0.25	11.0	12.0	6.2	
647371.125	3218.375	3235	0.028	0.44	0.47	0.26	5.1	5.5	3.0	
647371.125	3218.375	3236	0.024	0.44	0.48	0.27	6.9	7.5	4.2	
647371.125	3218.375	3237	0.024	0.44	0.49	0.28	4.4	4.9	2.8	
647320.813	3218.250	3238	0.024	0.44	0.49	0.28	6.9	7.7	4.4	
647371.125	3218.375	3239	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647371.125	3218.375	3240	0.024	0.44	0.48	0.29	4.4	4.8	2.9	
647371.125	3218.375	3241	0.024	0.44	0.48	0.29	4.4	4.8	2.9	
647320.813	3218.250	3242	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647371.125	3218.375	3243	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647371.125	3218.375	3244	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	3245	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647320.813	3218.250	3246	0.024	0.44	0.48	0.32	4.4	4.8	3.2	
647371.125	3218.375	3247	0.024	0.44	0.48	0.32	4.4	4.8	3.2	
647371.125	3218.375	3248	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647371.125	3218.375	3249	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647320.813	3218.250	3250	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3251	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3252	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3253	0.001	0.43	0.48	0.34	0.1	0.1	0.1	
647320.813	3218.250	3254	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3255	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3256	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647371.125	3218.375	3257	0.024	0.42	0.47	0.36	2.3	2.6	2.0	
647320.813	3218.250	3258	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3259	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3260	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3261	0.024	0.41	0.46	0.37	2.3	2.6	2.1	
647320.813	3218.250	3262	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3263	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3264	0.025	0.40	0.45	0.36	2.3	2.6	2.1	
647371.125	3218.375	3265	0.025	0.40	0.44	0.36	2.3	2.5	2.1	
647371.125	3218.375	3266	0.025	0.40	0.44	0.36	4.2	4.6	3.7	
647320.813	3218.250	3267	0.025	0.39	0.44	0.37	4.1	4.6	3.8	
647371.125	3218.375	3268	0.025	0.39	0.43	0.37	4.1	4.5	3.8	
647371.125	3218.375	3269	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
488965.688	2808.900	3270	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
86930.313	1315.682	3271	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
35470.313	945.576	3272	0.006	0.50	0.52	0.40	0.6	0.6	0.5	
365666.750	2565.102	3273	0.006	0.50	0.52	0.40	0.6	0.6	0.5	
614808.938	3085.888	3274	0.006	0.50	0.52	0.40	1.0	1.1	0.8	

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647371.125	3218.375	3275	0.004	0.49	0.51	0.39	1.3	1.3	1.0	
647345.938	3218.313	3276	0.004	0.49	0.51	0.39	1.3	1.3	1.0	
647371.125	3218.375	3277	0.004	0.49	0.51	0.39	0.8	0.8	0.6	
647345.938	3218.313	3278	0.004	0.49	0.51	0.39	0.8	0.8	0.6	
647371.125	3218.375	3279	0.004	0.49	0.51	0.38	0.5	0.5	0.4	
647345.938	3218.313	3280	0.004	0.49	0.51	0.38	0.5	0.5	0.4	
647371.125	3218.375	3281	0.004	0.49	0.51	0.37	0.8	0.8	0.6	
647345.938	3218.313	3282	0.004	0.49	0.51	0.37	1.3	1.3	1.0	
647371.125	3218.375	3283	0.004	0.49	0.51	0.36	1.3	1.3	0.8	
647345.938	3218.313	3284	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647345.938	3218.313	3285	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647371.125	3218.375	3286	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647371.125	3218.375	3287	0.004	0.49	0.52	0.35	0.5	0.5	0.3	
647371.125	3218.375	3288	0.004	0.49	0.52	0.34	0.8	0.9	0.6	
647320.813	3218.250	3289	0.004	0.49	0.52	0.34	0.8	0.9	0.6	
647371.125	3218.375	3290	0.004	0.49	0.52	0.33	0.8	0.9	0.5	
647371.125	3218.375	3291	0.004	0.49	0.52	0.33	0.8	0.9	0.5	
647371.125	3218.375	3292	0.004	0.49	0.53	0.33	0.8	0.9	0.5	
647320.813	3218.250	3293	0.004	0.49	0.53	0.32	0.8	0.9	0.5	
647371.125	3218.375	3294	0.004	0.49	0.53	0.32	0.5	0.5	0.3	
647371.125	3218.375	3295	0.004	0.49	0.54	0.32	0.5	0.5	0.3	
647371.125	3218.375	3296	0.004	0.49	0.54	0.32	0.8	0.9	0.5	
647320.813	3218.250	3297	0.004	0.49	0.54	0.31	0.8	0.9	0.5	
647371.125	3218.375	3298	0.004	0.49	0.55	0.31	0.5	0.5	0.3	
647371.125	3218.375	3299	0.004	0.49	0.56	0.31	1.3	1.5	0.8	
647371.125	3218.375	3300	0.004	0.49	0.56	0.30	0.8	0.9	0.5	
647320.813	3218.250	3301	0.004	0.49	0.57	0.30	0.5	0.5	0.3	
647371.125	3218.375	3302	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647371.125	3218.375	3303	0.004	0.49	0.57	0.29	0.8	0.9	0.5	
647371.125	3218.375	3304	0.004	0.49	0.57	0.29	1.3	1.5	0.8	
647320.813	3218.250	3305	0.004	0.49	0.57	0.29	1.7	2.0	1.0	
647371.125	3218.375	3306	0.005	0.49	0.57	0.29	1.0	1.2	0.6	
647371.125	3218.375	3307	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647371.125	3218.375	3308	0.004	0.49	0.57	0.29	1.7	2.0	1.0	
647320.813	3218.250	3309	0.004	0.49	0.56	0.29	1.7	2.0	1.0	
647371.125	3218.375	3310	0.004	0.49	0.56	0.28	1.3	1.5	0.7	
647371.125	3218.375	3311	0.004	0.48	0.55	0.28	1.3	1.4	0.7	
647371.125	3218.375	3312	0.004	0.48	0.55	0.28	1.3	1.4	0.7	
647320.813	3218.250	3313	0.004	0.48	0.54	0.28	0.8	0.9	0.5	
647371.125	3218.375	3314	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647371.125	3218.375	3315	0.004	0.48	0.53	0.29	0.8	0.9	0.5	
647371.125	3218.375	3316	0.004	0.48	0.53	0.29	1.3	1.4	0.8	
647320.813	3218.250	3317	0.004	0.47	0.52	0.27	1.7	1.8	1.0	
647371.125	3218.375	3318	0.004	0.47	0.52	0.27	1.7	1.8	1.0	
647371.125	3218.375	3319	0.004	0.48	0.52	0.28	1.3	1.4	0.7	
647371.125	3218.375	3320	0.004	0.48	0.50	0.27	0.8	0.8	0.4	
647320.813	3218.250	3321	0.004	0.47	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	3322	0.004	0.47	0.51	0.28	1.2	1.3	0.7	
647371.125	3218.375	3323	0.004	0.47	0.50	0.27	0.8	0.8	0.4	
647371.125	3218.375	3324	0.004	0.47	0.50	0.27	1.2	1.3	0.7	
647320.813	3218.250	3325	0.004	0.48	0.49	0.27	0.8	0.8	0.4	
647371.125	3218.375	3326	0.004	0.48	0.49	0.26	0.8	0.8	0.4	

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647371.125	3218.375	3327	0.004	0.46	0.49	0.26	0.4	0.5	0.2	
647371.125	3218.375	3328	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647320.813	3218.250	3329	0.004	0.46	0.49	0.25	0.8	0.8	0.4	
647371.125	3218.375	3330	0.004	0.45	0.48	0.25	0.4	0.4	0.2	
647371.125	3218.375	3331	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647371.125	3218.375	3332	0.004	0.45	0.48	0.25	1.2	1.3	0.7	
647320.813	3218.250	3333	0.004	0.45	0.48	0.25	0.4	0.4	0.2	
647371.125	3218.375	3334	0.004	0.45	0.47	0.24	0.7	0.8	0.4	
647371.125	3218.375	3335	0.004	0.45	0.47	0.24	0.7	0.8	0.4	
647371.125	3218.375	3336	0.004	0.45	0.47	0.24	1.2	1.2	0.6	
647320.813	3218.250	3337	0.004	0.44	0.46	0.23	1.2	1.2	0.6	
647371.125	3218.375	3338	0.004	0.44	0.47	0.23	1.2	1.2	0.6	
647371.125	3218.375	3339	0.004	0.43	0.47	0.23	1.1	1.2	0.6	
647371.125	3218.375	3340	0.004	0.43	0.47	0.23	0.7	0.8	0.4	
647320.813	3218.250	3341	0.004	0.43	0.47	0.23	0.7	0.8	0.4	
647371.125	3218.375	3342	0.090	0.43	0.47	0.22	8.4	9.2	4.3	
647371.125	3218.375	3343	0.004	0.43	0.47	0.22	1.1	1.2	0.6	
647371.125	3218.375	3344	0.025	0.43	0.47	0.23	4.5	4.9	2.4	
647320.813	3218.250	3345	0.025	0.43	0.48	0.23	2.5	2.8	1.3	
647371.125	3218.375	3346	0.040	0.44	0.48	0.24	15.7	17.1	8.6	
647371.125	3218.375	3347	0.045	0.44	0.48	0.25	24.7	28.9	14.0	
647371.125	3218.375	3348	0.045	0.44	0.48	0.25	8.2	9.0	4.7	
647320.813	3218.250	3349	0.040	0.44	0.48	0.26	7.3	8.0	4.3	
647371.125	3218.375	3350	0.040	0.44	0.48	0.26	7.3	8.0	4.3	
647371.125	3218.375	3351	0.024	0.44	0.48	0.26	2.4	2.7	1.4	
647371.125	3218.375	3352	0.024	0.45	0.49	0.27	7.1	7.7	4.2	
647320.813	3218.250	3353	0.024	0.44	0.49	0.28	4.4	4.9	2.8	
647371.125	3218.375	3354	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647371.125	3218.375	3355	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647371.125	3218.375	3356	0.024	0.44	0.49	0.29	2.4	2.7	1.6	
647320.813	3218.250	3357	0.024	0.44	0.48	0.29	2.4	2.7	1.6	
647371.125	3218.375	3358	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	3359	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	3360	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647320.813	3218.250	3361	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647371.125	3218.375	3362	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647371.125	3218.375	3363	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647371.125	3218.375	3364	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647320.813	3218.250	3365	0.024	0.43	0.48	0.33	9.2	10.3	7.1	
647371.125	3218.375	3366	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	3367	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3368	0.024	0.42	0.48	0.34	2.3	2.7	1.9	
647320.813	3218.250	3369	0.024	0.42	0.47	0.33	2.3	2.6	1.8	
647371.125	3218.375	3370	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3371	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647371.125	3218.375	3372	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647320.813	3218.250	3373	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3374	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	3375	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3376	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647320.813	3218.250	3377	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3378	0.024	0.40	0.45	0.36	2.2	2.5	2.0	

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647371.125	3218.375	3379	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647371.125	3218.375	3380	0.025	0.40	0.44	0.38	4.2	4.8	3.7	
647371.125	3218.375	3381	0.025	0.40	0.44	0.38	2.3	2.5	2.1	
647320.813	3218.250	3382	0.025	0.39	0.44	0.38	2.3	2.5	2.1	
647371.125	3218.375	3383	0.025	0.39	0.44	0.37	2.3	2.5	2.1	
647371.125	3218.375	3384	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
647371.125	3218.375	3385	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
525161.188	2836.878	3386	0.025	0.39	0.43	0.38	2.3	2.5	2.2	
9018.250	480.973	3387	0.025	0.39	0.43	0.38	2.3	2.5	2.2	
41455.359	1083.887	3388	0.005	0.50	0.52	0.40	1.0	1.1	0.8	
309000.000	2480.464	3389	0.005	0.49	0.52	0.39	1.6	1.7	1.3	
589721.375	3038.707	3390	0.004	0.49	0.52	0.39	0.8	0.9	0.6	
647773.438	3219.375	3391	0.004	0.49	0.52	0.39	0.5	0.5	0.4	
647748.250	3219.313	3392	0.004	0.49	0.52	0.38	0.8	0.9	0.6	
647773.438	3219.375	3393	0.004	0.49	0.52	0.38	0.8	0.9	0.6	
647748.250	3219.313	3394	0.004	0.49	0.52	0.38	0.8	0.9	0.6	
647773.438	3219.375	3395	0.004	0.49	0.52	0.37	0.8	0.9	0.6	
647748.250	3219.313	3396	0.004	0.49	0.52	0.37	1.7	1.9	1.3	
647773.438	3219.375	3397	0.004	0.49	0.52	0.37	1.3	1.4	1.0	
647748.250	3219.313	3398	0.004	0.49	0.52	0.36	0.8	0.9	0.6	
647748.250	3219.313	3399	0.004	0.49	0.52	0.37	0.5	0.5	0.3	
647773.438	3219.375	3400	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647773.438	3219.375	3401	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647773.438	3219.375	3402	0.004	0.49	0.52	0.35	0.8	0.9	0.6	
647723.125	3219.250	3403	0.004	0.49	0.52	0.34	0.8	0.9	0.6	
647773.438	3219.375	3404	0.004	0.49	0.52	0.34	0.8	0.9	0.6	
647773.438	3219.375	3405	0.004	0.49	0.53	0.33	0.5	0.5	0.3	
647773.438	3219.375	3406	0.004	0.49	0.53	0.33	0.8	0.9	0.5	
647723.125	3219.250	3407	0.004	0.49	0.53	0.33	0.8	0.9	0.5	
647773.438	3219.375	3408	0.004	0.49	0.54	0.32	0.5	0.5	0.3	
647773.438	3219.375	3409	0.004	0.49	0.54	0.32	0.5	0.5	0.3	
647773.438	3219.375	3410	0.004	0.49	0.54	0.32	0.8	0.9	0.5	
647723.125	3219.250	3411	0.004	0.49	0.55	0.32	1.3	1.4	0.8	
647773.438	3219.375	3412	0.004	0.49	0.55	0.31	1.7	2.0	1.1	
647773.438	3219.375	3413	0.004	0.49	0.56	0.31	3.2	3.6	2.0	
647773.438	3219.375	3414	0.004	0.49	0.57	0.31	1.7	2.0	1.1	
647723.125	3219.250	3415	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647773.438	3219.375	3416	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647773.438	3219.375	3417	0.004	0.49	0.57	0.30	1.3	1.5	0.8	
647773.438	3219.375	3418	0.004	0.49	0.58	0.29	1.7	2.1	1.0	
647723.125	3219.250	3419	0.004	0.49	0.58	0.29	0.5	0.5	0.3	
647773.438	3219.375	3420	0.004	0.49	0.57	0.29	1.7	2.0	1.0	
647773.438	3219.375	3421	0.004	0.49	0.57	0.29	1.7	2.0	1.0	
647773.438	3219.375	3422	0.004	0.49	0.57	0.29	3.2	3.7	1.9	
647723.125	3219.250	3423	0.004	0.49	0.57	0.29	1.7	2.0	1.0	
647773.438	3219.375	3424	0.004	0.49	0.56	0.30	0.8	0.9	0.5	
647773.438	3219.375	3425	0.004	0.49	0.56	0.29	1.3	1.5	0.8	
647773.438	3219.375	3426	0.004	0.48	0.55	0.28	1.3	1.4	0.7	
647723.125	3219.250	3427	0.004	0.48	0.55	0.28	0.8	0.9	0.5	
647773.438	3219.375	3428	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647773.438	3219.375	3429	0.004	0.48	0.54	0.28	0.4	0.5	0.3	
647773.438	3219.375	3430	0.004	0.48	0.53	0.29	1.7	1.9	1.0	

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647723.125	3219.250	3431	0.004	0.48	0.53	0.29	1.7	1.9	1.0	
647773.438	3219.375	3432	0.004	0.48	0.52	0.28	0.8	0.9	0.5	
647773.438	3219.375	3433	0.004	0.48	0.52	0.27	1.3	1.4	0.7	
647773.438	3219.375	3434	0.004	0.48	0.52	0.28	1.7	1.9	1.0	
647723.125	3219.250	3435	0.004	0.47	0.51	0.28	1.7	1.8	1.0	
647773.438	3219.375	3436	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647773.438	3219.375	3437	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647773.438	3219.375	3438	0.004	0.47	0.50	0.27	0.8	0.8	0.4	
647723.125	3219.250	3439	0.004	0.47	0.50	0.27	0.8	0.8	0.4	
647773.438	3219.375	3440	0.004	0.46	0.50	0.27	0.8	0.8	0.4	
647773.438	3219.375	3441	0.004	0.46	0.50	0.26	0.8	0.8	0.4	
647773.438	3219.375	3442	0.004	0.46	0.50	0.26	1.2	1.3	0.7	
647723.125	3219.250	3443	0.004	0.46	0.49	0.26	1.2	1.3	0.7	
647773.438	3219.375	3444	0.004	0.46	0.49	0.25	0.8	0.8	0.4	
647773.438	3219.375	3445	0.004	0.45	0.47	0.25	0.7	0.8	0.4	
647773.438	3219.375	3446	0.004	0.45	0.47	0.25	1.2	1.2	0.7	
647723.125	3219.250	3447	0.004	0.45	0.47	0.25	1.2	1.2	0.7	
647773.438	3219.375	3448	0.004	0.45	0.48	0.25	0.4	0.4	0.2	
647773.438	3219.375	3449	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647773.438	3219.375	3450	0.004	0.45	0.47	0.24	0.4	0.4	0.2	
647723.125	3219.250	3451	0.004	0.45	0.47	0.24	0.4	0.4	0.2	
647773.438	3219.375	3452	0.004	0.44	0.47	0.23	0.7	0.8	0.4	
647773.438	3219.375	3453	0.004	0.44	0.47	0.23	1.2	1.2	0.6	
647773.438	3219.375	3454	0.004	0.44	0.47	0.23	1.6	1.7	0.8	
647723.125	3219.250	3455	0.004	0.43	0.47	0.22	1.5	1.7	0.8	
647773.438	3219.375	3456	0.004	0.43	0.47	0.22	1.1	1.2	0.6	
647773.438	3219.375	3457	0.030	0.43	0.47	0.22	8.4	9.2	4.3	
647773.438	3219.375	3458	0.025	0.43	0.48	0.23	4.5	5.0	2.4	
647723.125	3219.250	3459	0.040	0.43	0.48	0.23	15.3	17.1	8.2	
647773.438	3219.375	3460	0.045	0.44	0.48	0.24	24.7	26.9	13.5	
647773.438	3219.375	3461	0.045	0.44	0.48	0.25	12.9	14.1	7.4	
647773.438	3219.375	3462	0.045	0.44	0.48	0.25	12.9	14.1	7.4	
647723.125	3219.250	6483	0.045	0.44	0.48	0.25	17.6	19.2	10.0	
647773.438	3219.375	3484	0.045	0.44	0.48	0.26	8.2	9.0	4.9	
647773.438	3219.375	3485	0.028	0.44	0.48	0.26	5.1	5.6	3.0	
647773.438	3219.375	3486	0.028	0.45	0.49	0.27	11.2	12.2	6.7	
647723.125	3219.250	3467	0.024	0.45	0.49	0.28	4.5	4.9	2.8	
647773.438	3219.375	3468	0.024	0.44	0.48	0.28	6.9	7.5	4.4	
647773.438	3219.375	3469	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647773.438	3219.375	3470	0.024	0.44	0.49	0.29	6.9	7.7	4.5	
647723.125	3219.250	3471	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647773.438	3219.375	3472	0.024	0.44	0.48	0.29	13.2	14.4	8.7	
647773.438	3219.375	3473	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647773.438	3219.375	3474	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647723.125	3219.250	3475	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647773.438	3219.375	3476	0.024	0.43	0.48	0.31	9.2	10.3	6.6	
647773.438	3219.375	3477	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647773.438	3219.375	3478	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647723.125	3219.250	3479	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647773.438	3219.375	3480	0.024	0.43	0.48	0.33	9.2	10.3	7.1	
647773.438	3219.375	3481	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
647773.438	3219.375	3482	0.024	0.42	0.47	0.34	4.2	4.7	3.4	

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647723.125	3218.250	3483	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647773.438	3218.375	3484	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647773.438	3218.375	3485	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647773.438	3218.375	3486	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647723.125	3218.250	3487	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647773.438	3218.375	3488	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647773.438	3218.375	3489	0.024	0.41	0.46	0.38	2.3	2.6	2.0	
647773.438	3218.375	3490	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647723.125	3218.250	3491	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647773.438	3218.375	3492	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647773.438	3218.375	3493	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647773.438	3218.375	3494	0.024	0.40	0.44	0.38	2.2	2.4	2.0	
647773.438	3218.375	3495	0.025	0.40	0.44	0.37	2.3	2.5	2.1	
647723.125	3218.250	3496	0.025	0.40	0.44	0.38	4.2	4.6	3.7	
647773.438	3218.375	3497	0.025	0.39	0.44	0.38	2.3	2.5	2.1	
647773.438	3218.375	3498	0.025	0.39	0.44	0.37	2.3	2.5	2.1	
647773.438	3218.375	3499	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
647723.125	3218.250	3500	0.025	0.39	0.43	0.38	2.3	2.5	2.2	
103593.438	1878.755	3501	0.025	0.39	0.43	0.38	2.3	2.5	2.2	
24825.938	825.154	3502	0.004	0.49	0.52	0.39	0.5	0.5	0.4	
288881.825	2421.925	3503	0.004	0.49	0.52	0.39	0.5	0.5	0.4	
580184.938	3051.393	3504	0.004	0.49	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	3505	0.004	0.49	0.52	0.39	0.8	0.9	0.6	
647345.938	3218.313	3506	0.004	0.49	0.52	0.38	0.5	0.5	0.4	
647371.125	3218.375	3507	0.004	0.49	0.52	0.38	0.5	0.5	0.4	
647345.938	3218.313	3508	0.004	0.49	0.52	0.37	1.3	1.4	1.0	
647371.125	3218.375	3509	0.004	0.49	0.52	0.37	1.7	1.9	1.3	
647345.938	3218.313	3510	0.004	0.49	0.52	0.37	0.8	0.9	0.6	
647345.938	3218.313	3511	0.004	0.49	0.52	0.36	0.5	0.5	0.3	
647371.125	3218.375	3512	0.004	0.49	0.52	0.37	0.5	0.5	0.3	
647371.125	3218.375	3513	0.004	0.49	0.52	0.36	0.8	0.9	0.6	
647371.125	3218.375	3514	0.004	0.49	0.52	0.35	0.8	0.9	0.6	
647320.813	3218.250	3515	0.004	0.49	0.52	0.35	0.5	0.5	0.3	
647371.125	3218.375	3516	0.004	0.49	0.53	0.34	0.5	0.5	0.3	
647371.125	3218.375	3517	0.004	0.49	0.53	0.34	0.5	0.5	0.3	
647371.125	3218.375	3518	0.004	0.49	0.53	0.33	0.5	0.5	0.3	
647320.813	3218.250	3519	0.004	0.49	0.54	0.33	0.8	0.9	0.5	
647371.125	3218.375	3520	0.004	0.49	0.54	0.33	0.8	0.9	0.5	
647371.125	3218.375	3521	0.004	0.49	0.54	0.32	0.8	0.9	0.5	
647371.125	3218.375	3522	0.004	0.49	0.55	0.32	1.3	1.4	0.8	
647320.813	3218.250	3523	0.004	0.49	0.55	0.32	0.8	0.9	0.5	
647371.125	3218.375	3524	0.004	0.49	0.56	0.32	1.3	1.5	0.8	
647371.125	3218.375	3525	0.004	0.49	0.56	0.31	1.7	2.0	1.1	
647371.125	3218.375	3526	0.004	0.49	0.57	0.31	4.0	4.6	2.5	
647320.813	3218.250	3527	0.004	0.49	0.57	0.31	4.0	4.6	2.5	
647371.125	3218.375	3528	0.004	0.49	0.58	0.30	2.4	2.9	1.5	
647371.125	3218.375	3529	0.004	0.49	0.58	0.30	1.3	1.5	0.8	
647371.125	3218.375	3530	0.004	0.50	0.59	0.30	0.8	1.0	0.5	
647320.813	3218.250	3531	0.004	0.49	0.58	0.29	0.8	1.0	0.5	
647371.125	3218.375	3532	0.004	0.49	0.58	0.29	1.7	2.1	1.0	
647371.125	3218.375	3533	0.004	0.49	0.57	0.29	1.3	1.5	0.8	
647371.125	3218.375	3534	0.004	0.49	0.57	0.29	0.5	0.5	0.3	

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647320.813	3218.250	3535	0.004	0.49	0.57	0.29	0.8	0.9	0.5	
647371.125	3218.375	3536	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647371.125	3218.375	3537	0.004	0.49	0.56	0.30	1.7	2.0	1.1	
647371.125	3218.375	3538	0.004	0.49	0.56	0.29	1.7	2.0	1.0	
647320.813	3218.250	3539	0.004	0.49	0.56	0.29	1.3	1.4	0.8	
647371.125	3218.375	3540	0.004	0.48	0.56	0.29	1.3	1.4	0.8	
647371.125	3218.375	3541	0.004	0.48	0.54	0.28	1.3	1.4	0.7	
647371.125	3218.375	3542	0.004	0.48	0.54	0.28	1.7	1.9	1.0	
647320.813	3218.250	3543	0.004	0.48	0.53	0.29	1.7	1.9	1.0	
647371.125	3218.375	3544	0.004	0.49	0.53	0.29	1.3	1.4	0.8	
647371.125	3218.375	3545	0.004	0.48	0.52	0.28	1.7	1.9	1.0	
647371.125	3218.375	3546	0.004	0.49	0.52	0.28	1.3	1.4	0.7	
647320.813	3218.250	3547	0.004	0.48	0.52	0.28	1.3	1.4	0.7	
647371.125	3218.375	3548	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	3549	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647371.125	3218.375	3550	0.004	0.47	0.50	0.28	0.8	0.8	0.5	
647320.813	3218.250	3551	0.004	0.47	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	3552	0.004	0.47	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	3553	0.004	0.46	0.50	0.27	1.2	1.3	0.7	
647371.125	3218.375	3554	0.004	0.46	0.50	0.27	1.6	1.8	1.0	
647320.813	3218.250	3555	0.004	0.46	0.50	0.26	1.2	1.3	0.7	
647371.125	3218.375	3556	0.004	0.46	0.50	0.26	1.6	1.8	0.9	
647371.125	3218.375	3557	0.004	0.46	0.49	0.26	0.8	0.8	0.4	
647371.125	3218.375	3558	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647320.813	3218.250	3559	0.004	0.45	0.48	0.26	1.6	1.7	0.9	
647371.125	3218.375	3560	0.004	0.45	0.47	0.25	1.6	1.7	0.9	
647371.125	3218.375	3561	0.004	0.45	0.47	0.25	1.6	1.7	0.9	
647371.125	3218.375	3562	0.004	0.45	0.48	0.25	1.2	1.3	0.7	
647320.813	3218.250	3563	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647371.125	3218.375	3564	0.004	0.44	0.47	0.23	0.7	0.8	0.4	
647371.125	3218.375	3565	0.004	0.44	0.47	0.23	0.7	0.8	0.4	
647371.125	3218.375	3566	0.004	0.44	0.47	0.23	0.7	0.8	0.4	
647320.813	3218.250	3567	0.004	0.44	0.47	0.22	0.7	0.8	0.4	
647371.125	3218.375	3568	0.004	0.43	0.47	0.21	0.4	0.4	0.2	
647371.125	3218.375	3569	0.004	0.43	0.48	0.22	0.7	0.8	0.4	
647371.125	3218.375	3570	0.025	0.43	0.48	0.22	7.0	7.8	3.6	
647320.813	3218.250	3571	0.040	0.43	0.48	0.23	21.5	24.0	11.5	
647371.125	3218.375	3572	0.040	0.44	0.48	0.25	22.0	24.0	12.5	
647371.125	3218.375	3573	0.045	0.44	0.48	0.24	17.6	19.2	9.6	
647371.125	3218.375	3574	0.045	0.44	0.48	0.25	17.6	19.2	10.0	
647320.813	3218.250	3575	0.045	0.44	0.48	0.26	8.2	9.0	4.7	
647371.125	3218.375	3576	0.045	0.44	0.48	0.25	8.2	9.0	4.7	
647371.125	3218.375	3577	0.028	0.44	0.48	0.26	8.1	8.8	4.8	
647371.125	3218.375	3578	0.028	0.45	0.49	0.27	5.2	5.7	3.1	
647320.813	3218.250	3579	0.028	0.45	0.49	0.27	5.2	5.7	3.1	
647371.125	3218.375	3580	0.001	0.45	0.49	0.28	0.2	0.2	0.1	
647371.125	3218.375	3581	0.024	0.44	0.48	0.28	2.4	2.7	1.6	
647371.125	3218.375	3582	0.024	0.44	0.49	0.29	4.4	4.9	2.9	
647320.813	3218.250	3583	0.024	0.44	0.49	0.30	2.4	2.7	1.7	
647371.125	3218.375	3584	0.024	0.44	0.48	0.30	13.2	14.4	9.0	
647371.125	3218.375	3585	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647371.125	3218.375	3586	0.024	0.44	0.48	0.31	4.4	4.8	3.1	

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647320.813	3218.250	3587	0.024	0.44	0.46	0.31	4.4	4.8	3.1	
647371.125	3218.375	3588	0.024	0.43	0.46	0.31	6.7	7.5	4.9	
647371.125	3218.375	3589	0.024	0.43	0.46	0.32	6.7	7.5	5.0	
647371.125	3218.375	3590	0.024	0.43	0.46	0.32	6.7	7.5	5.0	
647320.813	3218.250	3591	0.024	0.43	0.46	0.32	2.4	2.7	1.8	
647371.125	3218.375	3592	0.024	0.43	0.46	0.33	4.3	4.8	3.3	
647371.125	3218.375	3593	0.024	0.43	0.46	0.34	9.2	10.3	7.3	
647371.125	3218.375	3594	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647320.813	3218.250	3595	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3596	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	3597	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3598	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647320.813	3218.250	3599	0.024	0.41	0.46	0.34	2.3	2.6	1.9	
647371.125	3218.375	3600	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	3601	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3602	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647320.813	3218.250	3603	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	3604	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3605	0.024	0.40	0.45	0.36	4.0	4.5	3.6	
647371.125	3218.375	3606	0.024	0.40	0.45	0.37	4.0	4.5	3.7	
647371.125	3218.375	3607	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647320.813	3218.250	3608	0.024	0.40	0.44	0.37	2.2	2.4	2.1	
647371.125	3218.375	3609	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3610	0.025	0.39	0.44	0.37	2.3	2.5	2.1	
647371.125	3218.375	3611	0.025	0.39	0.44	0.37	2.3	2.5	2.1	
647320.813	3218.250	3612	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
198021.625	2061.633	3613	0.025	0.39	0.43	0.38	2.3	2.5	2.2	
131515.406	1826.258	3614	0.005	0.49	0.52	0.39	0.6	0.6	0.5	
640690.250	3153.457	3615	0.005	0.40	0.52	0.39	1.0	1.1	0.8	
647345.938	3218.313	3616	0.004	0.49	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	3617	0.004	0.49	0.52	0.38	0.5	0.5	0.4	
647345.938	3218.313	3618	0.004	0.49	0.52	0.38	1.7	1.9	1.4	
647371.125	3218.375	3619	0.004	0.49	0.52	0.37	3.2	3.4	2.4	
647345.938	3218.313	3620	0.004	0.49	0.52	0.37	1.3	1.4	1.0	
647345.938	3218.313	3621	0.004	0.49	0.52	0.37	0.8	0.9	0.6	
647371.125	3218.375	3622	0.004	0.49	0.52	0.36	1.3	1.4	0.9	
647371.125	3218.375	3623	0.004	0.49	0.52	0.37	0.8	0.9	0.6	
647371.125	3218.375	3624	0.004	0.49	0.52	0.36	0.8	0.9	0.6	
647320.813	3218.250	3625	0.004	0.49	0.53	0.35	0.5	0.5	0.3	
647371.125	3218.375	3626	0.004	0.49	0.53	0.35	0.5	0.5	0.3	
647371.125	3218.375	3627	0.004	0.49	0.53	0.34	0.8	0.9	0.6	
647371.125	3218.375	3628	0.004	0.49	0.53	0.34	0.5	0.5	0.3	
647320.813	3218.250	3629	0.004	0.49	0.54	0.33	0.8	0.9	0.5	
647371.125	3218.375	3630	0.004	0.49	0.54	0.33	1.3	1.4	0.9	
647371.125	3218.375	3631	0.004	0.49	0.55	0.33	1.7	2.0	1.2	
647371.125	3218.375	3632	0.004	0.49	0.56	0.32	1.3	1.4	0.8	
647320.813	3218.250	3633	0.004	0.49	0.56	0.32	1.7	2.0	1.1	
647371.125	3218.375	3634	0.004	0.49	0.56	0.32	0.8	0.9	0.5	
647371.125	3218.375	3635	0.004	0.49	0.57	0.32	0.5	0.5	0.3	
647371.125	3218.375	3636	0.004	0.49	0.57	0.31	0.8	0.9	0.5	
647320.813	3218.250	3637	0.004	0.49	0.57	0.31	2.4	2.8	1.5	
647371.125	3218.375	3638	0.004	0.49	0.58	0.31	1.7	2.1	1.1	

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647371.125	3218.375	3839	0.004	0.50	0.59	0.30	0.5	0.5	0.3	
647371.125	3218.375	3840	0.004	0.50	0.59	0.30	0.8	1.0	0.5	
647320.813	3218.250	3841	0.004	0.50	0.58	0.30	0.8	1.0	0.5	
647371.125	3218.375	3842	0.004	0.50	0.58	0.30	1.3	1.5	0.8	
647371.125	3218.375	3843	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647371.125	3218.375	3844	0.C24	0.49	0.57	0.30	0.5	0.5	0.3	
647320.813	3218.250	3845	0.004	0.49	0.56	0.29	0.8	0.9	0.5	
647371.125	3218.375	3846	0.004	0.49	0.57	0.30	1.3	1.5	0.8	
647371.125	3218.375	3847	0.004	0.49	0.56	0.30	1.3	1.5	0.8	
647371.125	3218.375	3848	0.004	0.49	0.56	0.30	1.7	2.0	1.1	
647320.813	3218.250	3849	0.004	0.49	0.55	0.29	0.8	0.9	0.5	
647371.125	3218.375	3850	0.004	0.49	0.55	0.29	1.3	1.4	0.8	
647371.125	3218.375	3851	0.004	0.48	0.54	0.29	2.4	2.7	1.4	
647371.125	3218.375	3852	0.004	0.48	0.54	0.28	1.3	1.4	0.7	
647320.813	3218.250	3853	0.004	0.48	0.53	0.28	1.3	1.4	0.7	
647371.125	3218.375	3854	0.004	0.49	0.54	0.29	2.4	2.7	1.4	
647371.125	3218.375	3855	0.004	0.49	0.53	0.30	0.8	0.9	0.5	
647371.125	3218.375	3856	0.004	0.48	0.52	0.29	0.8	0.9	0.5	
647320.813	3218.250	3857	0.004	0.48	0.52	0.29	1.3	1.4	0.8	
647371.125	3218.375	3858	0.004	0.48	0.52	0.29	1.3	1.4	0.8	
647371.125	3218.375	3859	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647371.125	3218.375	3860	0.004	0.47	0.51	0.28	0.4	0.5	0.3	
647320.813	3218.250	3861	6.004	0.47	0.50	0.28	0.4	0.5	0.3	
647371.125	3218.375	3862	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647371.125	3218.375	3863	0.004	0.46	0.50	0.27	0.8	0.8	0.4	
647371.125	3218.375	3864	0.004	0.46	0.49	0.27	1.2	1.3	0.7	
647320.813	3218.250	3865	0.004	0.46	0.49	0.27	0.8	0.8	0.4	
647371.125	3218.375	3866	0.004	0.46	0.49	0.26	1.6	1.7	0.9	
647371.125	3218.375	3867	0.004	0.46	0.49	0.26	1.6	1.7	0.9	
647371.125	3218.375	3868	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647320.813	3218.250	3869	0.004	0.45	0.48	0.26	1.6	1.7	0.9	
647371.125	3218.375	3870	0.004	0.45	0.48	0.25	1.6	1.7	0.9	
647371.125	3218.375	3871	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647371.125	3218.375	3872	0.004	0.45	0.47	0.25	1.2	1.2	0.7	
647320.813	3218.250	3873	0.004	0.45	0.47	0.25	1.6	1.7	0.9	
647371.125	3218.375	3874	0.004	0.45	0.48	0.24	1.2	1.3	0.6	
647371.125	3218.375	3875	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	3876	0.004	0.44	0.47	0.24	0.7	0.8	0.4	
647320.813	3218.250	3877	0.004	0.44	0.48	0.23	0.4	0.4	0.2	
647371.125	3218.375	3878	3.004	0.44	0.48	0.22	0.4	0.4	0.2	
647371.125	3218.375	3879	0.004	0.43	0.48	0.22	0.7	0.8	0.4	
647371.125	3218.375	3880	0.025	0.43	0.48	0.23	7.0	7.8	3.8	
647320.813	3218.250	3881	0.004	0.43	0.48	0.23	1.5	1.7	0.8	
647371.125	3218.375	3882	0.040	0.44	0.48	0.24	7.3	8.0	4.0	
647371.125	3218.375	3883	0.040	0.44	0.48	0.25	22.0	24.0	12.5	
647371.125	3218.375	3884	0.001	0.44	0.48	0.25	0.7	0.8	0.4	
647320.813	3218.250	3885	0.045	0.44	0.48	0.26	12.9	14.1	7.6	
647371.125	3218.375	3886	0.045	0.44	0.48	0.26	8.2	9.0	4.9	
647371.125	3218.375	3887	0.045	0.44	0.48	0.26	12.9	14.1	7.6	
647371.125	3218.375	3888	0.045	0.45	0.49	0.27	4.7	5.1	2.8	
647320.813	3218.250	3889	0.028	0.45	0.49	0.27	2.9	3.2	1.8	
647371.125	3218.375	3890	0.028	0.45	0.49	0.26	5.2	5.7	3.3	

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647371.125	3218.375	3691	0.045	- 0.45	0.49	0.28	13.2	14.4	8.2	
647371.125	3218.375	3692	0.040	0.44	0.48	0.29	11.5	12.5	7.6	
647320.813	3218.250	3693	0.024	0.44	0.48	0.30	6.9	7.7	4.7	
647371.125	3218.375	3694	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647371.125	3218.375	3695	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647371.125	3218.375	3696	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647320.813	3218.250	3697	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647371.125	3218.375	3698	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647371.125	3218.375	3699	0.024	0.43	0.48	0.32	9.2	10.3	6.8	
647371.125	3218.375	3700	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647320.813	3218.250	3701	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647371.125	3218.375	3702	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	3703	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
647371.125	3218.375	3704	0.028	0.42	0.47	0.34	4.9	5.5	4.0	
647320.813	3218.250	3705	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	3706	0.001	0.42	0.47	0.34	0.2	0.2	0.1	
647371.125	3218.375	3707	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	3708	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
647320.813	3218.250	3709	0.024	0.41	0.47	0.34	4.1	4.7	3.4	
647371.125	3218.375	3710	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3711	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3712	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647320.813	3218.250	3713	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3714	0.024	0.40	0.46	0.36	4.0	4.6	3.6	
647371.125	3218.375	3715	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3716	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3717	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647320.813	3218.250	3718	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3719	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3720	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3721	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
647320.813	3218.250	3722	0.025	0.39	0.43	0.37	2.3	2.5	2.1	
204091.594	2117.490	3723	0.040	0.39	0.43	0.38	3.6	4.0	3.5	
329687.686	2630.175	3724	0.005	0.49	0.52	0.40	0.6	0.6	0.5	
647748.250	3219.313	3725	0.005	0.49	0.52	0.40	0.6	0.6	0.5	
647773.438	3219.375	3726	0.005	0.49	0.52	0.39	1.0	1.1	0.8	
647748.250	3219.313	3727	0.005	0.48	0.52	0.38	2.1	2.3	1.7	
647773.438	3219.375	3728	0.004	0.48	0.52	0.38	3.1	3.4	2.5	
647748.250	3219.313	3729	0.004	0.48	0.52	0.37	1.3	1.4	1.0	
647748.250	3219.313	3730	0.004	0.48	0.52	0.37	1.7	1.9	1.3	
647773.438	3219.375	3731	0.004	0.00	0.00	0.00	0.0	0.0	0.0	
647773.438	3219.375	3732	0.004	0.48	0.52	0.36	0.8	0.9	0.6	
647773.438	3219.375	3733	0.004	0.48	0.53	0.36	0.4	0.5	0.3	
647723.125	3219.250	3734	0.004	0.49	0.53	0.36	0.5	0.5	0.3	
647773.438	3219.375	3735	0.004	0.49	0.53	0.35	0.8	0.9	0.6	
647773.438	3219.375	3736	0.004	0.49	0.53	0.35	0.8	0.9	0.6	
647773.438	3219.375	3737	0.004	0.49	0.54	0.34	1.3	1.4	0.9	
647723.125	3219.250	3738	0.004	0.49	0.54	0.34	1.3	1.4	0.9	
647773.438	3219.375	3739	0.004	0.49	0.54	0.33	0.8	0.9	0.5	
647773.438	3219.375	3740	0.004	0.49	0.55	0.33	1.7	2.0	1.2	
647773.438	3219.375	3741	0.004	0.49	0.55	0.33	1.7	2.0	1.2	
647723.125	3219.250	3742	0.004	0.49	0.56	0.32	0.8	0.9	0.5	

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647773.438	3219.375	3743	0.004	0.49	0.56	0.32	1.3	1.5	0.8	
647773.438	3219.375	3744	0.004	0.49	0.57	0.32	1.7	2.0	1.1	
647773.438	3219.375	3745	0.004	0.49	0.57	0.32	2.4	2.8	1.6	
647723.125	3219.250	3746	0.004	0.49	0.57	0.32	1.3	1.5	0.8	
647773.438	3219.375	3747	0.004	0.50	0.58	0.31	1.8	2.1	1.1	
647773.438	3219.375	3748	0.004	0.50	0.58	0.31	0.8	1.0	0.5	
647773.438	3219.375	3749	0.004	0.50	0.59	0.31	0.8	1.0	0.5	
647723.125	3219.250	3750	0.004	0.50	0.58	0.30	0.8	1.0	0.5	
647773.438	3219.375	3751	0.004	0.50	0.58	0.30	0.8	1.0	0.5	
647773.438	3219.375	3752	0.004	0.50	0.57	0.30	0.8	0.9	0.5	
647773.438	3219.375	3753	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647723.125	3219.250	3754	0.004	0.49	0.57	0.30	1.3	1.5	0.8	
647773.438	3219.375	3755	0.004	0.49	0.57	0.30	1.7	2.0	1.1	
647773.438	3219.375	3756	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647773.438	3219.375	3757	0.004	0.49	0.58	0.30	1.7	2.0	1.1	
647723.125	3219.250	3758	0.004	0.49	0.56	0.30	1.7	2.0	1.1	
647773.438	3219.375	3759	0.004	0.49	0.55	0.29	2.4	2.7	1.4	
647773.438	3219.375	3760	0.004	0.49	0.55	0.29	3.2	3.6	1.9	
647773.438	3219.375	3761	0.004	0.49	0.54	0.29	1.3	1.4	0.8	
647723.125	3219.250	3762	0.004	0.48	0.54	0.29	1.3	1.4	0.8	
647773.438	3219.375	3763	0.004	0.49	0.54	0.29	1.7	1.9	1.0	
647773.438	3219.375	3764	0.004	0.49	0.54	0.30	0.5	0.5	0.3	
647773.438	3219.375	3765	0.004	0.49	0.53	0.30	0.8	0.9	0.5	
647723.125	3219.250	3766	0.004	0.48	0.52	0.29	1.7	1.9	1.0	
647773.438	3219.375	3767	0.004	0.48	0.52	0.29	1.7	1.9	1.0	
647773.438	3219.375	3768	0.004	0.48	0.52	0.29	0.8	0.9	0.5	
647773.438	3219.375	3769	0.004	0.47	0.51	0.28	0.8	0.8	0.5	
647723.125	3219.250	3770	0.004	0.47	0.51	0.28	1.7	1.8	1.0	
647773.438	3219.375	3771	0.004	0.47	0.51	0.28	1.2	1.3	0.7	
647773.438	3219.375	3772	0.004	0.46	0.50	0.28	0.8	0.8	0.5	
647773.438	3219.375	3773	0.004	0.46	0.50	0.28	0.8	0.8	0.5	
647723.125	3219.250	3774	0.004	0.46	0.50	0.28	1.2	1.3	0.7	
647773.438	3219.375	3775	0.004	0.46	0.49	0.28	1.6	1.7	1.0	
647773.438	3219.375	3776	0.004	0.46	0.49	0.26	1.6	1.7	0.9	
647773.438	3219.375	3777	0.004	0.46	0.49	0.26	0.4	0.5	0.2	
647723.125	3219.250	3778	0.004	0.45	0.49	0.26	1.2	1.3	0.7	
647773.438	3219.375	3779	0.004	0.45	0.49	0.26	2.9	3.2	1.7	
647773.438	3219.375	3780	0.004	0.45	0.48	0.26	2.9	3.1	1.7	
647773.438	3219.375	3781	0.004	0.45	0.48	0.25	1.6	1.7	0.9	
647723.125	3219.250	3782	0.004	0.45	0.48	0.25	2.2	2.4	1.2	
647773.438	3219.375	3783	0.004	0.45	0.48	0.25	1.2	1.3	0.7	
647773.438	3219.375	3784	0.004	0.44	0.48	0.24	1.2	1.3	0.6	
647773.438	3219.375	3785	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647723.125	3219.250	3786	0.004	0.44	0.48	0.24	0.4	0.4	0.2	
647773.438	3219.375	3787	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647773.438	3219.375	3788	0.004	0.44	0.48	0.23	0.7	0.8	0.4	
647773.438	3219.375	3789	0.025	0.43	0.48	0.23	4.5	5.0	2.4	
647723.125	3219.250	3790	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647773.438	3219.375	3791	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647773.438	3219.375	3792	0.004	0.44	0.48	0.25	2.2	2.4	1.2	
647773.438	3219.375	3793	0.004	0.44	0.48	0.25	2.8	3.1	1.6	
647723.125	3219.250	3794	0.045	0.44	0.48	0.26	17.6	19.2	10.4	

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647773.438	3219.375	3795	0.045	0.44	0.49	0.27	12.9	14.4	7.9	
647773.438	3219.375	3796	0.045	0.45	0.49	0.27	13.2	14.4	7.9	
647773.438	3219.375	3797	0.045	0.45	0.49	0.27	13.2	14.4	7.9	
647723.125	3219.250	3798	0.045	0.45	0.48	0.27	4.7	5.0	2.8	
647773.438	3219.375	3799	0.045	0.45	0.49	0.28	4.7	5.1	2.9	
647773.438	3219.375	3800	0.045	0.45	0.49	0.28	13.2	14.4	8.2	
647773.438	3219.375	3801	0.045	0.44	0.48	0.29	17.6	19.2	11.8	
647723.125	3219.250	3802	0.018	0.44	0.48	0.29	12.8	14.0	8.4	
647773.438	3219.375	3803	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647773.438	3219.375	3804	0.024	0.44	0.48	0.30	4.4	4.8	3.0	
647773.438	3219.375	3805	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647723.125	3219.250	3806	0.040	0.44	0.48	0.31	7.3	8.0	5.2	
647773.438	3219.375	3807	0.024	0.43	0.48	0.31	9.2	10.3	6.6	
647773.438	3219.375	3808	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647773.438	3219.375	3809	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647723.125	3219.250	3810	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647773.438	3219.375	3811	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	3812	0.024	0.43	0.48	0.34	4.3	4.8	3.4	
647773.438	3219.375	3813	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
647723.125	3219.250	3814	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
647773.438	3219.375	3815	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	3816	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	3817	0.02?	0.42	0.47	0.34	4.2	4.7	3.4	
647723.125	3219.250	3818	0.024	0.41	0.47	0.34	4.1	4.7	3.4	
647773.438	3219.375	3819	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647773.438	3219.375	3820	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647773.438	3219.375	3821	0.024	0.41	0.46	0.35	4.1	4.6	3.5	
647723.125	3219.250	3822	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647773.438	3219.375	3823	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647773.438	3219.375	3824	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	3825	0.024	0.40	0.45	0.36	4.0	4.5	3.6	
647773.438	3219.375	3826	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647723.125	3219.250	3827	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647773.438	3219.375	3828	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647773.438	3219.375	3829	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
647773.438	3219.375	3830	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
647723.125	3219.250	3831	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
179080.781	2097.520	3832	0.024	0.39	0.43	0.37	2.2	2.4	2.1	
5805.297	385.237	3833	0.005	0.49	0.52	0.40	0.6	0.6	0.5	
467928.688	2886.616	3834	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
647371.125	3218.375	3835	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
647345.938	3218.313	3836	0.005	0.48	0.52	0.39	1.0	1.1	0.8	
647371.125	3218.375	3837	0.005	0.48	0.52	0.38	4.9	5.3	3.9	
647345.938	3218.313	3838	0.004	0.48	0.52	0.38	3.1	3.4	2.5	
647345.938	3218.313	3839	0.004	0.48	0.52	0.38	1.7	1.9	1.4	
647371.125	3218.375	3840	0.004	0.48	0.52	0.37	0.4	0.5	0.3	
647371.125	3218.375	3841	0.004	0.48	0.52	0.37	0.4	0.5	0.3	
647371.125	3218.375	3842	0.004	0.48	0.53	0.36	0.4	0.5	0.3	
647320.813	3218.250	3843	0.004	0.48	0.53	0.36	0.8	0.9	0.6	
647371.125	3218.375	3844	0.004	0.49	0.53	0.35	2.4	2.6	1.7	
647371.125	3218.375	3845	0.004	0.49	0.53	0.35	1.7	1.9	1.2	
647371.125	3218.375	3846	0.004	0.49	0.54	0.35	1.7	1.9	1.2	

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647320.813	3218.250	3847	0.004	0.49	0.54	0.34	2.4	2.7	1.7	
647371.125	3218.375	3848	0.004	0.49	0.54	0.34	2.4	2.7	1.7	
647371.125	3218.375	3849	0.004	0.49	0.55	0.34	0.8	0.9	0.6	
647371.125	3218.375	3850	0.004	0.49	0.56	0.33	1.3	1.5	0.9	
647320.813	3218.250	3851	0.004	0.49	0.56	0.33	0.8	0.9	0.5	
647371.125	3218.375	3852	0.004	0.49	0.56	0.32	1.3	1.5	0.8	
647371.125	3218.375	3853	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	3854	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647320.813	3218.250	3855	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	3856	0.004	0.50	0.58	0.32	1.3	1.5	0.8	
647371.125	3218.375	3857	0.004	0.50	0.58	0.31	1.3	1.5	0.8	
647371.125	3218.375	3858	0.004	0.50	0.58	0.31	0.5	0.5	0.3	
647320.813	3218.250	3859	0.004	0.50	0.58	0.31	0.8	1.0	0.5	
647371.125	3218.375	3860	0.004	0.50	0.58	0.31	1.8	2.1	1.1	
647371.125	3218.375	3861	0.004	0.50	0.57	0.31	2.5	2.8	1.5	
647371.125	3218.375	3862	0.004	0.50	0.57	0.30	4.1	4.6	2.4	
647320.813	3218.250	3863	0.004	0.50	0.57	0.30	2.5	2.8	1.5	
647371.125	3218.375	3864	0.004	0.50	0.57	0.30	0.5	0.5	0.3	
647371.125	3218.375	3865	0.004	0.49	0.57	0.30	0.8	0.9	0.5	
647371.125	3218.375	3866	0.004	0.49	0.56	0.30	1.3	1.5	0.8	
647320.813	3218.250	3867	0.004	0.49	0.56	0.30	1.7	2.0	1.1	
647371.125	3218.375	3868	0.004	0.49	0.55	0.30	1.3	1.4	0.8	
647371.125	3218.375	3869	0.004	0.49	0.56	0.30	2.4	2.7	1.5	
644458.625	3197.236	3870	0.004	0.49	0.55	0.30	0.5	0.5	0.3	
612374.250	3204.885	3871	0.004	0.50	0.55	0.30	0.8	0.9	0.5	
647371.125	3218.375	3872	0.004	0.49	0.54	0.30	1.7	1.9	1.1	
647371.125	3218.375	3873	0.004	0.49	0.54	0.30	1.3	1.4	0.8	
647371.125	3218.375	3874	0.004	0.49	0.54	0.30	0.5	0.5	0.3	
647320.813	3218.250	3875	0.004	0.49	0.53	0.30	2.4	2.6	1.5	
647371.125	3218.375	3876	0.004	0.48	0.52	0.29	1.3	1.4	0.8	
647371.125	3218.375	3877	0.004	0.47	0.52	0.29	0.8	0.9	0.5	
647371.125	3218.375	3878	0.004	0.47	0.51	0.29	1.2	1.3	0.8	
647320.813	3218.250	3879	0.004	0.46	0.51	0.29	1.6	1.8	1.0	
647371.125	3218.375	3880	0.004	0.46	0.51	0.29	1.2	1.3	0.8	
647371.125	3218.375	3881	0.004	0.46	0.51	0.28	1.6	1.8	1.0	
647371.125	3218.375	3882	0.004	0.45	0.50	0.28	1.6	1.8	1.0	
647320.813	3218.250	3883	0.004	0.45	0.50	0.28	2.2	2.5	1.4	
647371.125	3218.375	3884	0.004	0.45	0.50	0.28	2.2	2.5	1.4	
647371.125	3218.375	3885	0.004	0.45	0.49	0.27	1.2	1.3	0.7	
647371.125	3218.375	3886	0.004	0.46	0.49	0.27	0.8	0.8	0.4	
647320.813	3218.250	3887	0.004	0.46	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	3888	0.022	0.45	0.49	0.26	2.3	2.5	1.3	
647371.125	3218.375	3889	0.004	0.45	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	3890	0.004	0.45	0.48	0.26	0.7	0.8	0.4	
647320.813	3218.250	3891	0.004	0.45	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	3892	0.004	0.45	0.49	0.26	0.7	0.8	0.4	
647371.125	3218.375	3893	0.004	0.45	0.48	0.25	1.2	1.3	0.7	
647371.125	3218.375	3894	0.004	0.45	0.48	0.25	0.7	0.8	0.4	
647320.813	3218.250	3895	0.004	0.44	0.48	0.24	0.4	0.4	0.2	
647371.125	3218.375	3896	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	3897	0.004	0.44	0.48	0.23	1.2	1.3	0.6	
647371.125	3218.375	3898	0.004	0.44	0.48	0.23	0.7	0.8	0.4	

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647320.813	3218.250	3899	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	3900	0.004	0.44	0.48	0.24	1.6	1.7	0.9	
647371.125	3218.375	3901	0.004	0.44	0.48	0.25	2.8	3.1	1.6	
647371.125	3218.375	3902	0.045	0.44	0.48	0.27	17.6	19.2	10.8	
647320.813	3218.250	3903	0.045	0.44	0.48	0.28	8.2	9.0	4.9	
647371.125	3218.375	3904	0.045	0.45	0.49	0.27	18.0	19.6	10.8	
647371.125	3218.375	3905	0.001	0.00	0.00	0.00	0.0	0.0	0.0	
647371.125	3218.375	3906	0.045	0.45	0.49	0.27	13.2	14.4	7.9	
647320.813	3218.250	3907	0.045	0.45	0.49	0.27	4.7	5.1	2.8	
647371.125	3218.375	3908	0.045	0.45	0.49	0.28	4.7	5.0	2.9	
647371.125	3218.375	3909	0.045	0.45	0.49	0.29	8.4	9.2	5.4	
647371.125	3218.375	3910	0.045	0.45	0.49	0.29	8.4	9.2	5.4	
647320.813	3218.250	3911	0.018	0.44	0.48	0.29	5.2	5.6	3.4	
647371.125	3218.375	3912	0.018	0.44	0.48	0.30	1.8	2.0	1.3	
647371.125	3218.375	3913	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647371.125	3218.375	3914	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647320.813	3218.250	3915	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647371.125	3218.375	3916	0.024	0.43	0.48	0.31	9.2	10.3	6.6	
647371.125	3218.375	3917	0.024	0.43	0.48	0.31	9.2	10.3	6.6	
647371.125	3218.375	3918	0.024	0.43	0.48	0.32	9.2	10.3	6.6	
647320.813	3218.250	3919	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647371.125	3218.375	3920	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	3921	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647371.125	3218.375	3922	0.024	0.42	0.47	0.33	2.3	2.6	1.8	
647320.813	3218.250	3923	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	3924	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647371.125	3218.375	3925	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	3926	0.024	0.42	0.47	0.35	2.3	2.6	1.9	
647320.813	3218.250	3927	0.024	0.41	0.47	0.34	4.1	4.7	3.4	
647371.125	3218.375	3928	0.001	0.41	0.46	0.34	0.2	0.2	0.1	
647371.125	3218.375	3929	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3930	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647320.813	3218.250	3931	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	3932	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	3933	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	3934	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3935	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647320.813	3218.250	3936	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	3937	0.024	0.40	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3938	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	3939	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
647320.813	3218.250	3940	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
251381.109	2243.314	3941	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
85902.305	1484.378	3942	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
627150.625	3097.763	3943	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
647345.938	3218.313	3944	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
647371.125	3218.375	3945	0.004	0.48	0.52	0.39	1.7	1.9	1.4	
647345.938	3218.313	3946	0.004	0.48	0.52	0.39	2.4	2.6	1.9	
647345.938	3218.313	3947	0.004	0.48	0.52	0.38	1.3	1.4	1.0	
647371.125	3218.375	3948	0.004	0.48	0.52	0.38	0.4	0.5	0.4	
647371.125	3218.375	3949	0.004	0.48	0.52	0.37	0.4	0.5	0.3	
647371.125	3218.375	3950	0.004	0.48	0.53	0.37	0.4	0.5	0.3	

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647320.813	3218.250	3951	0.004	0.48	0.53	0.36	1.7	1.9	1.3	
647371.125	3218.375	3952	0.004	0.49	0.53	0.36	3.1	3.4	2.3	
647371.125	3218.375	3953	0.004	0.49	0.53	0.36	1.3	1.4	0.9	
647371.125	3218.375	3954	0.004	0.49	0.54	0.35	0.5	0.5	0.3	
647320.813	3218.250	3955	0.004	0.49	0.54	0.35	0.5	0.5	0.3	
647371.125	3218.375	3956	0.004	0.49	0.54	0.35	1.3	1.4	0.8	
647371.125	3218.375	3957	0.004	0.49	0.56	0.34	1.7	2.0	1.2	
647371.125	3218.375	3958	0.004	0.49	0.56	0.34	1.7	2.0	1.2	
647320.813	3218.250	3959	0.004	0.49	0.56	0.33	1.3	1.5	0.8	
647371.125	3218.375	3960	0.004	0.49	0.56	0.33	0.8	0.9	0.5	
647371.125	3218.375	3961	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	3962	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647320.813	3218.250	3963	0.004	0.49	0.57	0.32	0.5	0.5	0.3	
647371.125	3218.375	3964	0.004	0.50	0.58	0.32	0.8	1.0	0.5	
647371.125	3218.375	3965	0.004	0.50	0.58	0.32	0.8	1.0	0.5	
647371.125	3218.375	3966	0.004	0.50	0.58	0.32	0.5	0.5	0.3	
647320.813	3218.250	3967	0.004	0.50	0.58	0.31	0.8	1.0	0.5	
647371.125	3218.375	3968	0.004	0.50	0.58	0.31	1.3	1.5	0.8	
647371.125	3218.375	3969	0.004	0.50	0.57	0.31	1.3	1.5	0.8	
647371.125	3218.375	3970	0.004	0.50	0.57	0.31	1.3	1.5	0.8	
647320.813	3218.250	3971	0.004	0.50	0.57	0.31	1.3	1.5	0.8	
647371.125	3218.375	3972	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
647371.125	3218.375	3973	0.004	0.50	0.57	0.30	1.3	1.5	0.8	
647371.125	3218.375	3974	0.004	0.50	0.56	0.30	0.8	0.9	0.5	
647320.813	3218.250	3975	0.004	0.50	0.57	0.31	0.5	0.5	0.3	
647371.125	3218.375	3976	0.004	0.49	0.56	0.31	1.3	1.5	0.8	
647371.125	3218.375	3977	0.004	0.49	0.56	0.31	0.8	0.9	0.5	
379358.083	2846.683	3978	0.004	0.49	0.55	0.31	0.5	0.5	0.3	
4044.286	385.082	3979	0.001	0.50	0.55	0.30	0.1	0.1	0.1	
427981.219	2802.495	3980	0.004	0.50	0.55	0.30	0.8	0.9	0.5	
647371.125	3218.375	3981	0.004	0.49	0.55	0.30	2.4	2.7	1.5	
647371.125	3218.375	3982	0.004	0.49	0.54	0.30	1.3	1.4	0.8	
647320.813	3218.250	3983	0.004	0.48	0.54	0.30	1.3	1.4	0.8	
647371.125	3218.375	3984	0.004	0.47	0.53	0.30	2.3	2.6	1.5	
647371.125	3218.375	3985	0.004	0.47	0.52	0.29	0.8	0.9	0.5	
647371.125	3218.375	3986	0.004	0.47	0.52	0.29	0.8	0.9	0.5	
647320.813	3218.250	3987	0.004	0.47	0.52	0.29	1.7	1.9	1.0	
647371.125	3218.375	3988	0.004	0.48	0.51	0.29	2.3	2.5	1.4	
647371.125	3218.375	3989	0.004	0.48	0.51	0.28	1.2	1.3	0.7	
647371.125	3218.375	3990	0.004	0.46	0.51	0.28	1.2	1.3	0.7	
647320.813	3218.250	3991	0.004	0.46	0.50	0.28	1.2	1.3	0.7	
647371.125	3218.375	3992	0.004	0.45	0.50	0.28	1.2	1.3	0.7	
647371.125	3218.375	3993	0.004	0.45	0.49	0.28	3.7	4.0	2.3	
647371.125	3218.375	3994	0.004	0.45	0.49	0.27	3.7	4.0	2.2	
647320.813	3218.250	3995	0.022	0.45	0.49	0.27	16.0	17.4	9.6	
647371.125	3218.375	3996	0.022	0.46	0.49	0.27	16.4	17.4	9.6	
647371.125	3218.375	3997	0.022	0.45	0.49	0.27	8.8	9.6	5.3	
647371.125	3218.375	3998	0.004	0.45	0.49	0.26	0.7	0.8	0.4	
647320.813	3218.250	3999	0.004	0.45	0.49	0.26	0.4	0.5	0.2	
647371.125	3218.375	4000	0.004	0.45	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	4001	0.004	0.45	0.49	0.26	1.2	1.3	0.7	
647371.125	3218.375	4002	0.004	0.45	0.48	0.26	1.2	1.3	0.7	

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647320.813	3218.250	4003	0.004	0.45	0.48	0.25	1.2	1.3	0.7	
647371.125	3218.375	4004	0.004	0.45	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	4005	0.004	0.45	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	4006	0.004	0.45	0.48	0.24	0.7	0.8	0.4	
647320.813	3218.250	4007	0.004	0.44	0.48	0.24	0.7	0.8	0.4	
647371.125	3218.375	4008	0.004	0.44	0.48	0.25	1.2	1.3	0.7	
647371.125	3218.375	4009	0.004	0.44	0.48	0.25	1.8	1.7	0.8	
647371.125	3218.375	4010	0.001	0.44	0.48	0.27	0.1	0.1	0.1	
647320.813	3218.250	4011	0.045	0.44	0.48	0.28	8.2	8.0	4.9	
647371.125	3218.375	4012	0.025	0.45	0.48	0.27	2.6	2.8	1.6	
647371.125	3218.375	4013	0.045	0.45	0.48	0.27	8.4	8.2	5.1	
647371.125	3218.375	4014	0.045	0.45	0.48	0.27	8.4	8.2	5.1	
647320.813	3218.250	4015	0.001	0.00	0.00	0.00	0.0	0.0	0.0	
647371.125	3218.375	4016	0.045	0.45	0.48	0.29	4.7	5.1	3.0	
647371.125	3218.375	4017	0.045	0.45	0.48	0.28	4.7	5.0	2.9	
647371.125	3218.375	4018	0.045	0.45	0.48	0.29	13.2	14.4	8.5	
647320.813	3218.250	4019	0.018	0.45	0.48	0.29	7.2	7.9	4.7	
647371.125	3218.375	4020	0.040	0.44	0.48	0.30	15.7	17.1	10.7	
647371.125	3218.375	4021	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647371.125	3218.375	4022	0.040	0.44	0.48	0.31	11.5	12.5	8.1	
647320.813	3218.250	4023	0.040	0.44	0.48	0.30	11.5	12.5	7.8	
647371.125	3218.375	4024	0.040	0.43	0.48	0.31	11.2	12.5	8.1	
647371.125	3218.375	4025	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647371.125	3218.375	4026	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647320.813	3218.250	4027	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647371.125	3218.375	4028	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	4029	0.024	0.42	0.47	0.33	6.6	7.4	5.2	
647371.125	3218.375	4030	0.024	0.42	0.47	0.33	2.3	2.6	1.8	
647320.813	3218.250	4031	0.028	0.42	0.47	0.34	2.7	3.0	2.2	
647371.125	3218.375	4032	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
647371.125	3218.375	4033	0.024	0.42	0.47	0.34	6.6	7.4	5.3	
647371.125	3218.375	4034	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647320.813	3218.250	4035	0.024	0.41	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	4036	0.024	0.41	0.46	0.34	6.4	7.2	5.3	
647371.125	3218.375	4037	0.024	0.41	0.46	0.35	4.1	4.6	3.5	
647371.125	3218.375	4038	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647320.813	3218.250	4039	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	4040	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	4041	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	4042	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	4043	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647320.813	3218.250	4044	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	4045	0.024	0.40	0.45	0.38	2.2	2.5	2.0	
647371.125	3218.375	4046	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647371.125	3218.375	4047	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
647320.813	3218.250	4048	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
348049.250	2455.543	4049	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
216822.375	2252.459	4050	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
642078.250	3157.044	4051	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
647773.438	3218.375	4052	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
647748.250	3219.313	4053	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647748.250	3219.313	4054	0.004	0.48	0.52	0.39	0.8	0.9	0.6	

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647773.438	3219.375	4055	0.004	0.48	0.52	0.38	0.4	0.5	0.4	
647773.438	3219.375	4056	0.004	0.48	0.52	0.38	0.4	0.5	0.4	
647773.438	3219.375	4057	0.004	0.48	0.53	0.37	0.4	0.5	0.3	
647723.125	3219.250	4058	0.004	0.48	0.53	0.37	2.4	2.6	1.8	
647773.438	3219.375	4059	0.004	0.48	0.53	0.38	2.4	2.6	1.8	
647773.438	3219.375	4060	0.004	0.48	0.53	0.38	1.3	1.4	0.9	
647773.438	3219.375	4061	0.004	0.48	0.54	0.38	1.3	1.4	0.9	
647723.125	3219.250	4062	0.004	0.48	0.54	0.36	1.3	1.4	0.9	
647773.438	3219.375	4063	0.004	0.48	0.54	0.35	0.5	0.5	0.3	
647773.438	3219.375	4064	0.004	0.48	0.56	0.35	0.5	0.5	0.3	
647773.438	3219.375	4065	0.004	0.48	0.56	0.34	0.5	0.5	0.3	
647723.125	3219.250	4066	0.004	0.48	0.56	0.34	0.8	0.9	0.6	
647773.438	3219.375	4067	0.004	0.49	0.56	0.33	0.5	0.5	0.3	
647773.438	3219.375	4068	0.004	0.49	0.57	0.33	0.5	0.5	0.3	
647773.438	3219.375	4069	0.004	0.49	0.57	0.32	0.5	0.5	0.3	
647723.125	3219.250	4070	0.004	0.49	0.57	0.32	0.8	0.9	0.5	
647773.438	3219.375	4071	0.004	0.50	0.58	0.33	0.8	1.0	0.5	
647773.438	3219.375	4072	0.004	0.50	0.58	0.32	0.5	0.5	0.3	
647773.438	3219.375	4073	0.004	0.50	0.58	0.32	0.5	0.5	0.3	
647723.125	3219.250	4074	0.004	0.50	0.57	0.32	0.5	0.5	0.3	
647773.438	3219.375	4075	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647773.438	3219.375	4076	0.004	0.50	0.57	0.32	1.3	1.5	0.8	
647773.438	3219.375	4077	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
647723.125	3219.250	4078	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
647773.438	3219.375	4079	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
647773.438	3219.375	4080	0.004	0.50	0.57	0.31	0.8	0.9	0.5	
647773.438	3219.375	4081	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
647723.125	3219.250	4082	0.004	0.50	0.56	0.31	1.3	1.5	0.8	
647773.438	3219.375	4083	0.004	0.50	0.56	0.31	1.3	1.5	0.8	
598405.250	3029.674	4084	0.004	0.50	0.56	0.31	0.5	0.5	0.3	
53270.391	1162.000	4085	0.004	0.49	0.56	0.31	0.5	0.5	0.3	
151622.219	2044.634	4086	0.004	0.50	0.55	0.31	0.5	0.5	0.3	
647773.438	3219.375	4087	0.004	0.49	0.55	0.30	0.8	0.9	0.5	
647773.438	3219.375	4088	0.004	0.49	0.54	0.30	2.4	2.7	1.5	
647723.125	3219.250	4089	0.004	0.49	0.54	0.30	0.8	0.9	0.5	
647773.438	3219.375	4090	0.004	0.48	0.54	0.30	2.4	2.7	1.5	
647773.438	3219.375	4091	0.004	0.47	0.53	0.30	1.2	1.4	0.8	
647773.438	3219.375	4092	0.004	0.47	0.53	0.30	1.7	1.9	1.1	
647723.125	3219.250	4093	0.004	0.47	0.52	0.29	1.7	1.9	1.0	
647773.438	3219.375	4094	0.004	0.46	0.52	0.29	0.4	0.5	0.3	
647773.438	3219.375	4095	0.004	0.46	0.51	0.29	0.8	0.8	0.5	
647773.438	3219.375	4096	0.004	0.46	0.51	0.29	1.2	1.3	0.8	
647723.125	3219.250	4097	0.004	0.45	0.51	0.28	2.2	2.5	1.4	
647773.438	3219.375	4098	0.004	0.45	0.51	0.28	3.7	4.1	2.3	
647773.438	3219.375	4099	0.004	0.45	0.50	0.29	2.9	3.2	1.8	
647773.438	3219.375	4100	0.004	0.45	0.49	0.29	0.7	0.8	0.5	
647723.125	3219.250	4101	0.022	0.45	0.49	0.28	2.3	2.5	1.4	
647773.438	3219.375	4102	0.022	0.46	0.49	0.27	6.5	7.0	3.9	
647773.438	3219.375	4103	0.022	0.46	0.49	0.27	12.6	13.4	7.4	
647773.438	3219.375	4104	0.022	0.45	0.50	0.27	8.8	9.8	5.3	
647723.125	3219.250	4105	0.004	0.46	0.50	0.27	0.4	0.5	0.3	
647773.438	3219.375	4106	0.004	0.45	0.49	0.28	0.7	0.8	0.4	

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647773.438	3219.375	4107	0.004	0.45	0.49	0.28	0.4	0.5	0.2	
647773.438	3219.375	4108	0.004	0.45	0.49	0.28	1.6	1.7	0.9	
647723.125	3219.250	4109	0.004	0.45	0.48	0.28	2.2	2.4	1.3	
647773.438	3219.375	4110	0.004	0.45	0.48	0.28	2.2	2.4	1.3	
647773.438	3219.375	4111	0.004	0.45	0.48	0.24	1.2	1.3	0.6	
647773.438	3219.375	4112	0.004	0.45	0.49	0.28	0.7	0.8	0.4	
647723.125	3219.250	4113	0.025	0.44	0.49	0.25	7.2	8.0	4.1	
647773.438	3219.375	4114	0.025	0.44	0.49	0.28	2.5	2.8	1.5	
647773.438	3219.375	4115	0.025	0.44	0.49	0.28	9.8	10.9	5.8	
647773.438	3219.375	4116	0.025	0.44	0.49	0.28	9.8	10.9	5.8	
647723.125	3219.250	4117	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647773.438	3219.375	4118	0.025	0.45	0.49	0.27	4.7	5.1	2.8	
647773.438	3219.375	4119	0.025	0.45	0.49	0.27	4.7	5.1	2.8	
647773.438	3219.375	4120	0.045	0.45	0.48	0.27	8.4	9.0	5.1	
647723.125	3219.250	4121	0.045	0.45	0.49	0.28	4.7	5.1	2.9	
647773.438	3219.375	4122	0.045	0.45	0.49	0.29	4.7	5.1	3.0	
647773.438	3219.375	4123	0.045	0.45	0.48	0.28	8.4	9.0	5.2	
647773.438	3219.375	4124	0.045	0.45	0.48	0.29	8.4	9.0	5.4	
647723.125	3219.250	4125	0.018	0.45	0.49	0.29	5.3	5.8	3.4	
647773.438	3219.375	4126	0.040	0.44	0.48	0.30	7.3	8.0	5.0	
647773.438	3219.375	4127	0.024	0.44	0.48	0.30	6.9	7.5	4.7	
647773.438	3219.375	4128	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647723.125	3219.250	4129	0.024	0.44	0.48	0.31	4.4	4.8	3.1	
647773.438	3219.375	4130	0.024	0.43	0.48	0.31	2.4	2.7	1.7	
647773.438	3219.375	4131	0.024	0.43	0.48	0.31	4.3	4.8	3.1	
647773.438	3219.375	4132	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647723.125	3219.250	4133	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647773.438	3219.375	4134	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647773.438	3219.375	4135	0.024	0.42	0.47	0.33	6.6	7.4	5.2	
647773.435	3219.375	4136	0.024	0.42	0.47	0.33	9.0	10.1	7.1	
647723.125	3219.250	4137	0.024	0.42	0.47	0.34	6.6	7.4	5.3	
647773.438	3219.375	4138	0.024	0.42	0.47	0.34	9.0	10.1	7.3	
647773.438	3219.375	4139	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647773.438	3219.375	4140	0.024	0.41	0.47	0.34	2.3	2.6	1.9	
647723.125	3219.250	4141	0.024	0.41	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	4142	0.024	0.41	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	4143	0.024	0.41	0.46	0.35	4.1	4.6	3.5	
647773.438	3219.375	4144	0.024	0.41	0.46	0.35	4.1	4.6	3.5	
647723.125	3219.250	4145	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647773.438	3219.375	4146	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647773.438	3219.375	4147	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	4148	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	4149	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647723.125	3219.250	4150	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647773.438	3219.375	4151	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	4152	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647773.438	3219.375	4153	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647723.125	3219.250	4154	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
352162.344	2488.751	4155	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
328400.438	2825.304	4156	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
647371.125	3218.375	4157	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
647345.938	3218.313	4158	0.004	0.48	0.52	0.40	0.4	0.5	0.4	

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647345.938	3218.313	4159	0.004	0.48	0.52	0.39	0.4	0.5	0.4	
647371.125	3218.375	4160	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	4161	0.004	0.48	0.52	0.38	0.4	0.5	0.4	
647371.125	3218.375	4162	0.004	0.48	0.53	0.38	0.8	0.9	0.6	
647320.813	3218.250	4163	0.004	0.48	0.53	0.37	1.3	1.4	1.0	
647371.125	3218.375	4164	0.004	0.48	0.53	0.37	1.3	1.4	1.0	
647371.125	3218.375	4165	0.004	0.48	0.53	0.36	1.7	1.9	1.3	
647371.125	3218.375	4166	0.004	0.48	0.54	0.36	1.3	1.4	0.9	
647320.813	3218.250	4167	0.004	0.49	0.54	0.36	1.3	1.4	0.9	
647371.125	3218.375	4168	0.004	0.49	0.54	0.36	0.8	0.9	0.6	
647371.125	3218.375	4169	0.004	0.49	0.55	0.35	0.8	0.9	0.6	
647371.125	3218.375	4170	0.004	0.49	0.56	0.35	0.8	0.9	0.6	
647320.813	3218.250	4171	0.004	0.49	0.56	0.34	0.5	0.5	0.3	
647371.125	3218.375	4172	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647371.125	3218.375	4173	0.004	0.49	0.57	0.33	0.5	0.5	0.3	
647371.125	3218.375	4174	0.004	0.49	0.57	0.33	0.5	0.5	0.3	
647320.813	3218.250	4175	0.004	0.49	0.57	0.33	0.8	0.9	0.5	
647371.125	3218.375	4176	0.004	0.50	0.58	0.33	0.8	1.0	0.5	
647371.125	3218.375	4177	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647371.125	3218.375	4178	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647320.813	3218.250	4179	0.004	0.50	0.58	0.32	0.5	0.5	0.3	
647371.125	3218.375	4180	0.004	0.50	0.58	0.32	0.5	0.5	0.3	
647371.125	3218.375	4181	0.004	0.50	0.57	0.32	0.5	0.5	0.3	
647371.125	3218.375	4182	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647320.813	3218.250	4183	0.004	0.50	0.57	0.32	1.3	1.5	0.8	
647371.125	3218.375	4184	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	4185	0.004	0.50	0.57	0.31	0.5	0.5	0.3	
647371.125	3218.375	4186	0.004	0.50	0.57	0.31	1.8	2.0	1.1	
471276.406	2818.851	4187	0.004	0.50	0.56	0.31	0.5	0.5	0.3	
210725.047	2154.824	4188	0.004	0.50	0.56	0.31	1.3	1.5	0.8	
57730.750	1211.505	4189	0.004	0.50	0.56	0.31	0.5	0.5	0.3	
30027.969	1731.869	4190	0.004	0.50	0.55	0.31	0.5	0.5	0.3	
647371.125	3218.375	4191	0.004	0.50	0.55	0.31	0.5	0.5	0.3	
647371.125	3218.375	4192	0.004	0.49	0.55	0.31	2.4	2.7	1.5	
647320.813	3218.250	4193	0.004	0.48	0.54	0.31	2.4	2.7	1.5	
647371.125	3218.375	4194	0.004	0.48	0.54	0.31	3.1	3.5	2.0	
647371.125	3218.375	4195	0.004	0.47	0.54	0.31	1.7	1.9	1.1	
647371.125	3218.375	4196	0.004	0.46	0.53	0.30	0.8	0.9	0.5	
647320.813	3218.250	4197	0.004	0.46	0.52	0.30	1.6	1.9	1.1	
647371.125	3218.375	4198	0.004	0.46	0.52	0.29	1.2	1.4	0.8	
647371.125	3218.375	4199	0.004	0.46	0.52	0.29	1.6	1.9	1.0	
647371.125	3218.375	4200	0.004	0.45	0.51	0.30	1.2	1.3	0.8	
647320.813	3218.250	4201	0.004	0.45	0.51	0.29	0.7	0.8	0.5	
647371.125	3218.375	4202	0.004	0.45	0.51	0.29	1.2	1.3	0.8	
645781.750	3214.385	4203	0.004	0.45	0.51	0.29	2.2	2.5	1.4	
567505.875	3042.117	4204	0.004	0.45	0.50	0.29	1.6	1.8	1.0	
591148.083	3073.148	4205	0.004	0.45	0.50	0.29	0.4	0.5	0.3	
647371.125	3218.375	4206	0.004	0.45	0.50	0.28	1.2	1.3	0.7	
647371.125	3218.375	4207	0.022	0.45	0.50	0.28	16.0	17.8	10.0	
647371.125	3218.375	4208	0.022	0.46	0.50	0.28	16.4	17.8	10.0	
647320.813	3218.250	4209	0.022	0.45	0.50	0.27	4.1	4.6	2.5	
647371.125	3218.375	4210	0.022	0.45	0.50	0.27	4.1	4.6	2.5	

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647371.125	3218.375	4211	0.022	0.45	0.50	0.27	6.5	7.2	3.9	
647371.125	3218.375	4212	0.004	0.45	0.50	0.27	2.2	2.5	1.3	
647320.813	3218.250	4213	0.004	0.45	0.49	0.28	1.2	1.3	0.7	
647371.125	3218.375	4214	0.004	0.45	0.49	0.28	1.2	1.3	0.7	
647371.125	3218.375	4215	0.040	0.45	0.49	0.28	22.5	24.5	13.0	
647371.125	3218.375	4216	0.004	0.45	0.49	0.25	2.2	2.4	1.2	
647320.813	3218.250	4217	0.025	0.44	0.49	0.28	7.2	8.0	4.2	
647371.125	3218.375	4218	0.025	0.44	0.49	0.28	7.2	8.0	4.2	
647371.125	3218.375	4219	0.025	0.45	0.49	0.27	7.4	8.0	4.4	
647371.125	3218.375	4220	0.025	0.45	0.49	0.27	4.7	5.1	2.8	
647320.813	3218.250	4221	0.025	0.45	0.49	0.27	10.0	10.9	6.0	
647371.125	3218.375	4222	0.025	0.45	0.49	0.27	7.4	8.0	4.4	
647371.125	3218.375	4223	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647371.125	3218.375	4224	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647320.813	3218.250	4225	0.025	0.45	0.49	0.28	4.7	5.1	2.9	
647371.125	3218.375	4226	0.045	0.45	0.49	0.28	4.7	5.1	2.9	
647371.125	3218.375	4227	0.045	0.45	0.48	0.28	8.4	9.0	5.2	
647371.125	3218.375	4228	0.045	0.45	0.48	0.29	8.4	9.0	5.4	
647320.813	3218.250	4229	0.018	0.45	0.48	0.29	7.2	7.7	4.7	
647371.125	3218.375	4230	0.018	0.45	0.49	0.30	7.2	7.9	4.8	
647371.125	3218.375	4231	0.024	0.44	0.48	0.30	13.2	14.4	9.0	
647371.125	3218.375	4232	0.024	0.44	0.48	0.31	17.1	18.6	12.0	
647320.813	3218.250	4233	0.024	0.44	0.48	0.31	6.9	7.5	4.9	
647371.125	3218.375	4234	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647371.125	3218.375	4235	0.040	0.43	0.48	0.31	4.0	4.4	2.9	
647371.125	3218.375	4236	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647320.813	3218.250	4237	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	4238	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647371.125	3218.375	4239	0.024	0.42	0.47	0.34	9.0	10.1	7.3	
647371.125	3218.375	4240	0.024	0.42	0.47	0.34	6.6	7.4	5.3	
647320.813	3218.250	4241	0.024	0.42	0.47	0.34	9.0	10.1	7.3	
647371.125	3218.375	4242	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647371.125	3218.375	4243	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647371.125	3218.375	4244	0.024	0.41	0.46	0.34	6.4	7.2	5.3	
647320.813	3218.250	4245	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647371.125	3218.375	4246	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647371.125	3218.375	4247	0.024	0.41	0.46	0.35	2.3	2.6	1.9	
647371.125	3218.375	4248	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647320.813	3218.250	4249	0.024	0.41	0.46	0.36	2.3	2.6	2.0	
647371.125	3218.375	4250	0.024	0.40	0.46	0.35	4.0	4.6	3.5	
647371.125	3218.375	4251	0.024	0.40	0.46	0.36	4.0	4.6	3.6	
647371.125	3218.375	4252	0.024	0.40	0.45	0.36	4.0	4.5	3.6	
647371.125	3218.375	4253	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647320.813	3218.250	4254	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	4255	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	4256	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647371.125	3218.375	4257	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
647320.813	3218.250	4258	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
308475.469	2377.695	4259	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
185279.297	2194.327	4260	0.004	0.45	0.51	0.29	1.6	1.8	1.0	
11557.000	530.930	4261	0.004	0.46	0.52	0.40	0.4	0.5	0.4	
388321.625	2469.522	4262	0.004	0.46	0.52	0.40	0.4	0.5	0.4	

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473230.375	2882.484	4263	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
638885.083	3154.154	4264	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
647371.125	3218.375	4265	0.004	0.48	0.52	0.39	0.4	0.5	0.4	
647371.125	3218.375	4266	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647371.125	3218.375	4267	0.004	0.48	0.53	0.38	0.8	0.9	0.6	
647320.813	3218.250	4268	0.004	0.48	0.53	0.38	0.8	0.9	0.6	
647371.125	3218.375	4269	0.004	0.48	0.53	0.37	0.8	0.9	0.6	
647371.125	3218.375	4270	0.004	0.48	0.53	0.37	0.4	0.5	0.3	
647371.125	3218.375	4271	0.004	0.48	0.54	0.36	0.8	0.9	0.6	
647320.813	3218.250	4272	0.004	0.49	0.54	0.36	1.3	1.4	0.9	
647371.125	3218.375	4273	0.004	0.49	0.54	0.36	0.5	0.5	0.3	
647371.125	3218.375	4274	0.004	0.49	0.55	0.36	0.5	0.5	0.3	
647371.125	3218.375	4275	0.004	0.49	0.55	0.35	0.5	0.5	0.3	
647320.813	3218.250	4276	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647371.125	3218.375	4277	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647371.125	3218.375	4278	0.004	0.49	0.56	0.34	0.5	0.5	0.3	
647371.125	3218.375	4279	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647320.813	3218.250	4280	0.004	0.49	0.57	0.33	0.8	0.9	0.5	
647371.125	3218.375	4281	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647371.125	3218.375	4282	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647371.125	3218.375	4283	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647320.813	3218.250	4284	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647371.125	3218.375	4285	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647371.125	3218.375	4286	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647371.125	3218.375	4287	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647320.813	3218.250	4288	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	4289	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
647371.125	3218.375	4290	0.004	0.50	0.57	0.32	0.5	0.5	0.3	
601617.500	3058.128	4291	0.004	0.50	0.57	0.32	1.3	1.5	0.8	
22888.422	828.750	4292	0.004	0.50	0.56	0.32	1.3	1.5	0.8	
35244.281	1287.274	4293	0.004	0.50	0.56	0.32	0.5	0.5	0.3	
567092.875	2843.888	4294	0.004	0.49	0.55	0.32	0.5	0.5	0.3	
422807.250	2770.222	4295	0.004	0.48	0.55	0.31	0.8	0.9	0.5	
327683.531	2424.083	4296	0.004	0.48	0.54	0.31	1.3	1.4	0.8	
534911.750	3031.179	4297	0.004	0.47	0.54	0.31	1.2	1.4	0.8	
647371.125	3218.375	4298	0.004	0.47	0.54	0.31	1.7	1.9	1.1	
647371.125	3218.375	4299	0.004	0.46	0.54	0.31	2.3	2.7	1.5	
647320.813	3218.250	4300	0.004	0.46	0.53	0.30	0.8	0.9	0.5	
647371.125	3218.375	4301	0.004	0.46	0.53	0.30	1.6	1.9	1.1	
647371.125	3218.375	4302	0.004	0.45	0.52	0.30	1.2	1.4	0.8	
647371.125	3218.375	4303	0.004	0.45	0.52	0.29	2.9	3.4	1.9	
647320.813	3218.250	4304	0.004	0.45	0.51	0.29	1.2	1.3	0.8	
559726.688	3008.688	4305	0.004	0.45	0.51	0.29	1.6	1.8	1.0	
24808.953	827.114	4306	0.004	0.45	0.51	0.29	0.7	0.8	0.5	
281640.625	2389.340	4307	0.004	0.45	0.50	0.29	0.7	0.8	0.5	
585315.500	3028.824	4308	0.004	0.45	0.50	0.28	2.9	3.2	1.8	
647371.125	3218.375	4309	0.022	0.45	0.50	0.28	8.8	9.8	5.5	
647320.813	3218.250	4310	0.022	0.46	0.50	0.28	4.2	4.6	2.6	
647371.125	3218.375	4311	0.022	0.46	0.50	0.28	9.0	9.8	5.5	
647371.125	3218.375	4312	0.022	0.45	0.49	0.27	8.8	9.6	5.3	
647371.125	3218.375	4313	0.004	0.45	0.50	0.27	1.2	1.3	0.7	
647320.813	3218.250	4314	0.004	0.45	0.49	0.28	0.4	0.5	0.2	

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647371.125	3218.375	4315	0.004	0.45	0.49	0.27	0.4	0.5	0.3	
647371.125	3218.375	4316	0.004	0.45	0.49	0.28	1.2	1.3	0.7	
647371.125	3218.375	4317	0.004	0.45	0.49	0.28	1.6	1.7	0.9	
647320.813	3218.250	4318	0.040	0.45	0.49	0.28	4.2	4.5	2.4	
647371.125	3218.375	4319	0.025	0.45	0.49	0.27	7.4	8.0	4.4	
647371.125	3218.375	4320	0.025	0.45	0.49	0.27	7.4	8.0	4.4	
647371.125	3218.375	4321	0.025	0.45	0.49	0.27	4.7	5.1	2.8	
647320.813	3218.250	4322	0.025	0.45	0.49	0.28	14.0	15.3	8.7	
647371.125	3218.375	4323	0.025	0.45	0.49	0.28	4.7	5.0	2.9	
647371.125	3218.375	4324	0.025	0.45	0.49	0.28	2.6	2.8	1.6	
647371.125	3218.375	4325	0.025	0.45	0.49	0.28	2.6	2.8	1.6	
647320.813	3218.250	4326	0.025	0.45	0.49	0.28	2.6	2.8	1.6	
647371.125	3218.375	4327	0.025	0.45	0.49	0.28	2.6	2.8	1.6	
647371.125	3218.375	4328	0.025	0.45	0.49	0.29	2.6	2.8	1.7	
647371.125	3218.375	4329	0.025	0.45	0.48	0.29	2.6	2.8	1.7	
647320.813	3218.250	4330	0.045	0.45	0.48	0.29	18.0	19.2	11.6	
647371.125	3218.375	4331	0.045	0.45	0.49	0.30	4.7	5.1	3.1	
647371.125	3218.375	4332	0.045	0.44	0.48	0.30	12.9	14.1	8.8	
647371.125	3218.375	4333	0.024	0.44	0.48	0.31	9.4	10.3	6.6	
647320.813	3218.250	4334	0.024	0.44	0.48	0.32	4.4	4.8	3.2	
647371.125	3218.375	4335	0.024	0.43	0.48	0.31	6.7	7.5	4.9	
647371.125	3218.375	4336	0.040	0.43	0.48	0.32	11.2	12.5	8.4	
647371.125	3218.375	4337	0.024	0.43	0.48	0.32	2.4	2.7	1.8	
647320.813	3218.250	4338	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647371.125	3218.375	4339	0.024	0.43	0.48	0.33	6.7	7.5	5.2	
647371.125	3218.375	4340	0.024	0.42	0.47	0.33	9.0	10.1	7.1	
647371.125	3218.375	4341	0.024	0.42	0.47	0.34	6.6	7.4	5.3	
647320.813	3218.250	4342	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	4343	0.024	0.42	0.48	0.35	9.0	10.3	7.5	
647371.125	3218.375	4344	0.024	0.42	0.47	0.35	12.6	14.1	10.5	
647371.125	3218.375	4345	0.024	0.41	0.46	0.34	8.8	9.8	7.3	
647320.813	3218.250	4346	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647371.125	3218.375	4347	0.024	0.41	0.47	0.55	12.3	14.1	10.5	
647371.125	3218.375	4348	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647371.125	3218.375	4349	0.024	0.41	0.46	0.36	6.4	7.2	5.6	
647320.813	3218.250	4350	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647371.125	3218.375	4351	0.024	0.40	0.46	0.36	4.0	4.6	3.6	
647371.125	3218.375	4352	0.024	0.40	0.45	0.36	4.0	4.5	3.6	
647371.125	3218.375	4353	0.024	0.40	0.46	0.37	4.0	4.6	3.7	
647371.125	3218.375	4354	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647320.813	3218.250	4355	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	4356	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	4357	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
647371.125	3218.375	4358	0.024	0.39	0.44	0.38	2.2	2.4	2.0	
637861.188	3137.741	4359	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
175868.922	1844.458	4360	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
86121.031	1579.533	4361	0.004	0.48	0.52	0.40	0.4	0.5	0.4	
394201.188	2855.229	4362	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
645761.750	3214.391	4363	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647773.438	3218.375	4364	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647723.125	3219.250	4365	0.004	0.48	0.53	0.38	0.8	0.9	0.6	
647773.438	3219.375	4366	0.004	0.48	0.53	0.38	0.8	0.9	0.6	

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647773.438	3219.375	4367	0.004	0.48	0.53	0.37	0.4	0.5	0.3	
647773.438	3219.375	4368	0.004	0.48	0.53	0.37	0.8	0.9	0.6	
647723.125	3219.250	4369	0.004	0.48	0.54	0.38	0.8	0.9	0.6	
647773.438	3219.375	4370	0.004	0.49	0.56	0.37	0.5	0.5	0.3	
647773.438	3219.375	4371	0.004	0.49	0.55	0.36	0.5	0.5	0.3	
647773.438	3219.375	4372	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647723.125	3219.250	4373	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647773.438	3219.375	4374	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647773.438	3219.375	4375	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647773.438	3219.375	4376	0.004	0.49	0.57	0.34	0.8	0.9	0.6	
647723.125	3219.250	4377	0.004	0.49	0.57	0.34	0.8	0.9	0.6	
647773.438	3219.375	4378	0.004	0.50	0.57	0.34	0.5	0.5	0.3	
647773.438	3219.375	4379	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647773.438	3219.375	4380	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647723.125	3219.250	4381	0.004	0.50	0.58	0.33	0.5	0.5	0.3	
647773.438	3219.375	4382	0.004	0.50	0.58	0.33	0.8	1.0	0.5	
647773.438	3219.375	4383	0.004	0.50	0.58	0.33	0.8	1.0	0.5	
647773.438	3219.375	4384	0.004	0.50	0.58	0.33	0.8	1.0	0.5	
647723.125	3219.250	4385	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647773.438	3219.375	4386	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647773.438	3219.375	4387	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
319735.938	2503.169	4388	0.004	0.50	0.57	0.32	0.8	0.9	0.5	
324592.375	2410.382	4389	0.004	0.47	0.54	0.31	0.8	0.9	0.5	
647773.438	3219.375	4390	0.004	0.46	0.54	0.31	0.4	0.5	0.3	
647773.438	3219.375	4391	0.004	0.46	0.53	0.31	1.2	1.4	0.8	
647723.125	3219.250	4392	0.004	0.46	0.53	0.31	0.8	0.9	0.5	
647773.438	3219.375	4393	0.004	0.48	0.53	0.30	2.4	2.6	1.5	
647773.438	3219.375	4394	0.004	0.45	0.53	0.30	1.2	1.4	0.8	
647773.438	3219.375	4395	0.004	0.45	0.52	0.30	3.7	4.2	2.4	
609233.750	3049.926	4396	0.004	0.45	0.51	0.30	2.2	2.5	1.5	
95286.563	1511.303	4397	0.004	0.45	0.51	0.30	1.2	1.3	0.8	
33246.500	927.049	4398	0.004	0.45	0.51	0.29	1.2	1.3	0.8	
340471.531	2584.284	4399	0.022	0.45	0.50	0.28	6.5	7.2	4.0	
623448.438	3098.233	4400	0.022	0.46	0.50	0.28	4.2	4.6	2.6	
647773.438	3219.375	4401	0.022	0.46	0.50	0.28	6.6	7.2	4.0	
647773.438	3219.375	4402	0.022	0.46	0.50	0.28	9.0	9.8	5.5	
647773.438	3219.375	4403	0.022	0.46	0.50	0.28	6.6	7.2	4.0	
647723.125	3219.250	4404	0.022	0.46	0.50	0.28	4.2	4.6	2.6	
647773.438	3219.375	4405	0.022	0.46	0.50	0.28	4.2	4.6	2.6	
647773.438	3219.375	4406	0.004	0.46	0.50	0.28	1.2	1.3	0.7	
647773.438	3219.375	4407	0.025	0.46	0.49	0.28	14.3	15.3	8.7	
647723.125	3219.250	4408	0.025	0.46	0.49	0.28	10.2	10.9	6.2	
647773.438	3219.375	4409	0.025	0.45	0.49	0.27	7.4	8.0	4.4	
647773.438	3219.375	4410	0.025	0.45	0.49	0.28	10.0	10.9	6.2	
647773.438	3219.375	4411	0.040	0.45	0.49	0.28	11.8	12.8	7.3	
647723.125	3219.250	4412	0.025	0.45	0.49	0.28	14.0	15.3	8.7	
647773.438	3219.375	4413	0.025	0.45	0.49	0.29	4.7	5.1	3.0	
647773.438	3219.375	4414	0.025	0.45	0.49	0.27	10.0	10.9	6.0	
647773.438	3219.375	4415	0.021	0.45	0.49	0.28	6.2	6.7	3.8	
647723.125	3219.250	4416	0.025	0.45	0.49	0.28	4.7	5.1	2.9	
647773.438	3219.375	4417	0.025	0.46	0.49	0.28	7.5	8.0	4.6	
647773.438	3219.375	4418	0.025	0.46	0.49	0.29	4.8	5.1	3.0	

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647773.438	3219.375	4419	0.025	0.45	0.48	0.29	4.7	5.0	3.0	
647723.125	3219.250	4420	0.025	0.45	0.48	0.30	4.7	5.0	3.1	
647773.438	3219.375	4421	0.045	0.45	0.48	0.30	13.2	14.4	8.8	
647773.438	3219.375	4422	0.045	0.44	0.48	0.30	17.8	19.2	12.0	
647773.438	3219.375	4423	0.045	0.44	0.48	0.31	24.7	28.9	17.4	
647723.125	3219.250	4424	0.024	0.44	0.48	0.32	6.9	7.5	5.0	
647773.438	3219.375	4425	0.024	0.43	0.48	0.31	4.3	4.8	3.1	
647773.438	3219.375	4426	0.024	0.43	0.48	0.32	6.7	7.5	5.0	
647773.438	3219.375	4427	0.024	0.43	0.48	0.32	9.2	10.3	6.8	
647723.125	3219.250	4428	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647773.438	3219.375	4429	0.024	0.43	0.48	0.33	4.3	4.8	3.3	
647773.438	3219.375	4430	0.024	0.42	0.47	0.33	6.6	7.4	5.2	
647773.438	3219.375	4431	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647723.125	3219.250	4432	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647773.438	3219.375	4433	0.024	0.42	0.48	0.35	12.6	14.4	10.5	
647773.438	3219.375	4434	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
647773.438	3219.375	4435	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647723.125	3219.250	4436	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647773.438	3219.375	4437	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647773.438	3219.375	4438	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647773.438	3219.375	4439	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647723.125	3219.250	4440	0.024	0.41	0.46	0.36	4.1	4.6	3.6	
647773.438	3219.375	4441	0.024	0.40	0.46	0.35	2.2	2.6	1.9	
647773.438	3219.375	4442	0.024	0.40	0.45	0.36	4.0	4.5	3.6	
647773.438	3219.375	4443	0.024	0.40	0.46	0.36	4.0	4.6	3.6	
647773.438	3219.375	4444	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
647723.125	3219.250	4445	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647773.438	3219.375	4446	0.024	0.40	0.46	0.36	2.2	2.6	2.1	
647773.438	3219.375	4447	0.024	0.40	0.46	0.36	2.2	2.6	2.1	
647773.438	3219.375	4448	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
493341.188	3968.364	4449	0.024	0.39	0.44	0.36	2.2	2.4	2.0	
389679.719	2395.719	4450	0.024	0.39	0.44	0.37	2.2	2.4	2.1	
283205.781	2481.281	4451	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
618002.250	3085.171	4452	0.004	0.48	0.52	0.39	0.8	0.9	0.6	
647320.813	3218.250	4453	0.004	0.48	0.53	0.38	0.4	0.5	0.4	
647371.125	3218.375	4454	0.004	0.48	0.53	0.38	0.8	0.9	0.6	
647371.125	3218.375	4455	0.004	0.48	0.53	0.37	0.8	0.9	0.6	
647371.125	3218.375	4456	0.004	0.48	0.53	0.37	0.8	0.9	0.6	
647320.813	3218.250	4457	0.004	0.48	0.54	0.37	0.4	0.5	0.3	
647371.125	3218.375	4458	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4459	0.004	0.49	0.56	0.37	0.5	0.5	0.3	
647371.125	3218.375	4460	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647320.813	3218.250	4461	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647371.125	3218.375	4462	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647371.125	3218.375	4463	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647371.125	3218.375	4464	0.004	0.49	0.56	0.35	0.8	0.9	0.6	
647320.813	3218.250	4465	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647371.125	3218.375	4466	0.004	0.49	0.57	0.34	0.5	0.5	0.3	
647371.125	3218.375	4467	0.004	0.50	0.57	0.34	0.5	0.5	0.3	
647371.125	3218.375	4468	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647320.813	3218.250	4469	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647371.125	3218.375	4470	0.004	0.50	0.57	0.33	0.8	0.9	0.5	

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647371.125	3218.375	4471	0.004	0.50	0.57	0.33	0.8	0.9	0.5	
647371.125	3218.375	4472	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647320.813	3218.250	4473	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647371.125	3218.375	4474	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
598219.500	3039.180	4475	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
38001.083	888.876	4476	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
288544.563	2332.135	4477	0.004	0.47	0.55	0.32	0.4	0.5	0.3	
647371.125	3218.375	4478	0.004	0.48	0.54	0.32	0.8	0.9	0.5	
647371.125	3218.375	4479	0.004	0.48	0.54	0.32	1.7	1.9	1.1	
608978.250	3121.586	4480	0.004	0.48	0.54	0.32	1.7	1.9	1.1	
512888.281	2884.554	4481	0.004	0.48	0.54	0.32	2.4	2.7	1.6	
493288.531	2808.480	4482	0.004	0.47	0.53	0.31	0.8	0.9	0.5	
392486.313	2588.852	4483	0.004	0.47	0.53	0.30	1.7	1.9	1.1	
116790.578	1800.883	4484	0.004	0.45	0.52	0.30	1.6	1.9	1.1	
69923.969	1351.950	4485	0.022	0.45	0.51	0.28	2.3	2.6	1.4	
433721.938	2803.244	4486	0.022	0.46	0.50	0.28	4.2	4.6	2.6	
647371.125	3218.375	4487	0.022	0.46	0.50	0.28	12.6	13.7	7.7	
647371.125	3218.375	4488	0.022	0.46	0.50	0.28	12.6	13.7	7.7	
647320.813	3218.250	4489	0.022	0.46	0.50	0.28	12.6	13.7	7.7	
647371.125	3218.375	4490	0.022	0.46	0.50	0.28	9.0	9.8	5.5	
647371.125	3218.375	4491	0.022	0.46	0.50	0.29	4.2	4.6	2.7	
647371.125	3218.375	4492	0.021	0.46	0.49	0.28	8.6	9.2	5.2	
647320.813	3218.250	4493	0.025	0.46	0.49	0.28	4.8	5.1	2.9	
647371.125	3218.375	4494	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647371.125	3218.375	4495	0.025	0.45	0.49	0.28	10.0	10.9	6.2	
647371.125	3218.375	4496	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647320.813	3218.250	4497	0.025	0.45	0.49	0.28	10.0	10.9	6.2	
647371.125	3218.375	4498	0.040	0.45	0.49	0.29	11.8	12.8	7.6	
647371.125	3218.375	4499	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647371.125	3218.375	4500	0.025	0.45	0.49	0.28	14.0	15.3	8.7	
647320.813	3218.250	4501	0.025	0.46	0.49	0.28	10.2	10.9	6.2	
647371.125	3218.375	4502	0.025	0.46	0.49	0.29	4.8	5.1	3.0	
647371.125	3218.375	4503	0.025	0.46	0.49	0.29	2.7	2.8	1.7	
647371.125	3218.375	4504	0.025	0.46	0.48	0.29	4.8	5.0	3.0	
647320.813	3218.250	4505	0.025	0.45	0.48	0.30	2.6	2.8	1.7	
647371.125	3218.375	4506	0.045	0.45	0.48	0.30	18.0	19.2	12.0	
647371.125	3218.375	4507	0.045	0.45	0.48	0.31	18.0	19.6	12.4	
647371.125	3218.375	4508	0.045	0.44	0.48	0.31	8.2	9.0	5.8	
647320.813	3218.250	4509	0.024	0.44	0.48	0.32	6.9	7.5	5.0	
647371.125	3218.375	4510	0.009	0.43	0.48	0.31	2.5	2.8	1.8	
647371.125	3218.375	4511	0.009	0.43	0.48	0.32	1.6	1.8	1.2	
647371.125	3218.375	4512	0.024	0.43	0.48	0.32	12.9	14.4	9.6	
647320.813	3218.250	4513	0.024	0.43	0.48	0.33	12.9	14.4	9.9	
647371.125	3218.375	4514	0.024	0.43	0.48	0.33	2.4	2.7	1.8	
647371.125	3218.375	4515	0.024	0.42	0.48	0.33	9.0	10.3	7.1	
647371.125	3218.375	4516	0.024	0.42	0.47	0.33	4.2	4.7	3.3	
647320.813	3218.250	4517	0.024	0.42	0.47	0.34	2.3	2.6	1.9	
647371.125	3218.375	4518	0.024	0.42	0.48	0.35	9.0	10.3	7.5	
647371.125	3218.375	4519	0.024	0.42	0.47	0.35	4.2	4.7	3.5	
647371.125	3218.375	4520	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647320.813	3218.250	4521	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647371.125	3218.375	4522	0.024	0.41	0.47	0.36	12.3	14.1	10.5	

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647371.125	3218.375	4523	0.024	0.41	0.47	0.36	8.8	10.1	7.5	
647371.125	3218.375	4524	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647320.813	3218.250	4525	0.024	0.41	0.46	0.38	2.3	2.6	2.0	
647371.125	3218.375	4526	0.024	0.40	0.46	0.35	2.2	2.6	1.9	
647371.125	3218.375	4527	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647371.125	3218.375	4528	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647371.125	3218.375	4529	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
647320.813	3218.250	4530	0.024	0.40	0.45	0.37	2.2	2.5	2.1	
647371.125	3218.375	4531	0.024	0.40	0.45	0.37	4.0	4.5	3.7	
647371.125	3218.375	4532	0.024	0.40	0.46	0.38	4.0	4.6	3.8	
647371.125	3218.375	4533	0.024	0.40	0.46	0.38	2.2	2.6	2.1	
568598.938	2882.360	4534	0.024	0.38	0.44	0.36	2.2	2.4	2.0	
172822.750	2040.387	4535	0.024	0.38	0.44	0.37	2.2	2.4	2.1	
78682.734	1422.528	4536	0.004	0.48	0.52	0.40	0.8	0.9	0.7	
524940.938	2832.027	4537	0.004	0.48	0.52	0.39	0.4	0.5	0.4	
647773.438	3219.375	4538	0.004	0.48	0.53	0.38	0.4	0.5	0.4	
647773.438	3219.375	4539	0.005	0.48	0.53	0.38	1.0	1.1	0.8	
647773.438	3219.375	4540	0.004	0.48	0.53	0.37	0.8	0.9	0.6	
647723.125	3219.250	4541	0.004	0.48	0.54	0.37	0.4	0.5	0.3	
647773.438	3219.375	4542	0.004	0.48	0.54	0.37	0.4	0.5	0.3	
647773.438	3219.375	4543	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647773.438	3219.375	4544	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647723.125	3219.250	4545	0.004	0.49	0.55	0.36	0.5	0.5	0.3	
647773.438	3219.375	4546	0.004	0.49	0.55	0.36	0.5	0.5	0.3	
647773.438	3219.375	4547	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647773.438	3219.375	4548	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647723.125	3219.250	4549	0.004	0.49	0.56	0.35	0.5	0.5	0.3	
647773.438	3219.375	4550	0.004	0.49	0.57	0.35	0.8	0.9	0.6	
647773.438	3219.375	4551	0.004	0.50	0.57	0.34	0.8	0.9	0.6	
647773.438	3219.375	4552	0.004	0.50	0.57	0.34	0.5	0.5	0.3	
647723.125	3219.250	4553	0.004	0.50	0.57	0.34	0.8	0.9	0.6	
647773.438	3219.375	4554	0.004	0.50	0.57	0.33	0.8	0.9	0.5	
647773.438	3219.375	4555	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647773.438	3219.375	4556	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
647723.125	3219.250	4557	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
635219.813	3130.001	4558	0.004	0.50	0.57	0.33	0.5	0.5	0.3	
178549.844	2035.119	4559	0.004	0.50	0.57	0.33	0.5	3.5	0.3	
230808.594	2188.758	4560	0.004	0.49	0.56	0.33	0.5	0.5	0.3	
647773.438	3219.375	4561	0.004	0.49	0.54	0.32	1.3	1.4	0.8	
616709.375	3084.732	4562	0.004	0.48	0.54	0.32	0.8	0.9	0.5	
102453.828	1567.123	4563	0.004	0.48	0.54	0.32	0.8	0.9	0.5	
19780.000	701.294	4564	0.022	0.46	0.51	0.29	6.6	7.3	4.2	
562325.250	3013.288	4565	0.022	0.46	0.51	0.29	9.0	10.0	5.7	
647773.438	3219.375	4566	0.022	0.46	0.51	0.29	6.6	7.3	4.2	
647723.125	3219.250	4567	0.022	0.46	0.51	0.29	12.6	14.0	8.0	
647773.438	3219.375	4568	0.022	0.46	0.49	0.29	9.0	9.6	5.7	
647773.438	3219.375	4569	0.022	0.46	0.50	0.29	4.2	4.6	2.7	
647773.438	3219.375	4570	0.021	0.46	0.50	0.29	4.0	4.4	2.5	
647723.125	3219.250	4571	0.025	0.46	0.50	0.29	4.8	5.2	3.0	
647773.438	3219.375	4572	0.025	0.45	0.49	0.28	10.0	10.9	6.2	
647773.438	3219.375	4573	0.021	0.45	0.49	0.28	6.2	6.7	3.8	
647773.438	3219.375	4574	0.021	0.45	0.49	0.29	6.2	6.7	4.0	

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647723.125	3219.250	4575	0.021	0.46	0.49	0.29	6.2	6.7	4.0	
647773.438	3219.375	4576	0.025	0.45	0.49	0.29	2.6	2.8	1.7	
647773.438	3219.375	4577	0.025	0.45	0.49	0.28	4.7	5.1	2.9	
647773.438	3219.375	4578	0.025	0.46	0.49	0.29	2.7	2.8	1.7	
647723.125	3219.250	4579	0.025	0.46	0.49	0.30	7.5	8.0	4.9	
647773.438	3219.375	4580	0.025	0.46	0.49	0.29	7.5	8.0	4.7	
647773.438	3219.375	4581	0.025	0.46	0.49	0.30	4.8	5.1	3.1	
647773.438	3219.375	4582	0.025	0.46	0.49	0.30	4.8	5.1	3.1	
647723.125	3219.250	4583	0.025	0.46	0.48	0.30	4.7	5.0	3.1	
647773.438	3219.375	4584	0.045	0.46	0.48	0.30	8.4	9.0	5.6	
647773.438	3219.375	4585	0.045	0.45	0.49	0.31	25.3	27.5	17.4	
647773.438	3219.375	4586	0.045	0.44	0.48	0.31	17.6	19.2	12.4	
647723.125	3219.250	4587	0.040	0.44	0.49	0.32	11.5	12.8	8.4	
647773.438	3219.375	4588	0.009	0.43	0.48	0.31	2.5	2.8	1.8	
647773.438	3219.375	4589	0.024	0.43	0.49	0.33	4.3	4.8	3.3	
647773.438	3219.375	4590	0.024	0.43	0.48	0.32	4.3	4.8	3.2	
647723.125	3219.250	4591	0.024	0.43	0.48	0.33	12.9	14.4	8.9	
647773.438	3219.375	4592	0.024	0.42	0.48	0.32	12.6	14.4	8.6	
647773.438	3219.375	4593	0.024	0.42	0.48	0.33	4.2	4.8	3.3	
647773.438	3219.375	4594	0.024	0.42	0.48	0.33	4.2	4.8	3.3	
647723.125	3219.250	4595	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647773.438	3219.375	4596	0.024	0.42	0.48	0.35	4.2	4.8	3.5	
647773.438	3219.375	4597	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647773.438	3219.375	4598	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647723.125	3219.250	4599	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647773.438	3219.375	4600	0.024	0.41	0.47	0.35	2.3	2.6	1.9	
647773.438	3219.375	4601	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647773.438	3219.375	4602	0.024	0.41	0.47	0.35	2.3	2.6	1.9	
647723.125	3219.250	4603	0.024	0.41	0.47	0.36	4.1	4.7	3.6	
647773.438	3219.375	4604	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647773.438	3219.375	4605	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647773.438	3219.375	4606	0.024	0.40	0.45	0.36	2.2	2.5	2.0	
647773.438	3219.375	4607	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647723.125	3219.250	4608	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
647773.438	3219.375	4609	0.024	0.40	0.45	0.37	4.0	4.5	3.7	
647773.438	3219.375	4610	0.024	0.40	0.46	0.38	6.3	7.2	6.0	
450811.168	2888.349	4611	0.024	0.40	0.46	0.38	6.3	7.2	6.0	
33880.547	914.225	4612	0.024	0.39	0.45	0.37	2.2	2.5	2.1	
45504.875	1041.180	4613	0.004	0.48	0.52	0.39	0.4	0.5	0.4	
583741.750	2981.382	4614	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
647371.125	3218.375	4615	0.005	0.48	0.53	0.38	1.0	1.1	0.8	
647371.125	3218.375	4616	0.005	0.48	0.53	0.38	1.0	1.1	0.8	
647320.813	3218.250	4617	0.004	0.48	0.54	0.38	0.4	0.5	0.4	
647371.125	3218.375	4618	0.005	0.48	0.54	0.37	0.6	0.6	0.4	
647371.125	3218.375	4619	0.004	0.49	0.54	0.37	0.5	0.5	0.3	
647371.125	3218.375	4620	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647320.813	3218.250	4621	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4622	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4623	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647371.125	3218.375	4624	0.004	0.49	0.56	0.36	0.5	0.5	0.3	
647320.813	3218.250	4625	0.004	0.49	0.56	0.36	0.8	0.9	0.6	
647371.125	3218.375	4626	0.004	0.49	0.56	0.35	0.8	0.9	0.6	

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647371.125	3218.375	4827	0.004	0.49	0.57	0.35	0.5	0.5	0.3	
647371.125	3218.375	4828	0.004	0.50	0.57	0.34	0.5	0.5	0.3	
647320.813	3218.250	4829	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647371.125	3218.375	4830	0.004	0.51	0.58	0.34	0.5	0.5	0.3	
647371.125	3218.375	4831	0.004	0.51	0.58	0.34	0.5	0.5	0.3	
647371.125	3218.375	4832	0.004	0.51	0.57	0.34	0.5	0.5	0.3	
647320.813	3218.250	4833	0.004	0.51	0.57	0.34	0.5	0.5	0.3	
363125.219	2804.422	4834	0.004	0.51	0.57	0.34	0.5	0.5	0.3	
86945.408	1089.048	4835	0.004	0.49	0.56	0.33	0.5	0.5	0.3	
418220.000	2827.532	4836	0.004	0.49	0.56	0.32	0.8	0.9	0.5	
184370.906	2044.757	4837	0.004	0.48	0.54	0.32	0.8	0.9	0.5	
298838.625	2382.767	4838	0.022	0.46	0.51	0.30	9.0	10.0	5.9	
647371.125	3218.375	4839	0.022	0.46	0.51	0.30	2.3	2.6	1.5	
647320.813	3218.250	4840	0.022	0.46	0.51	0.30	12.6	14.0	8.2	
647371.125	3218.375	4841	0.022	0.46	0.50	0.30	9.0	9.8	5.9	
647371.125	3218.375	4842	0.022	0.46	0.50	0.29	4.2	4.6	2.7	
647371.125	3218.375	4843	0.021	0.46	0.50	0.30	4.0	4.4	2.6	
647320.813	3218.250	4844	0.021	0.46	0.50	0.29	6.3	6.9	4.0	
647371.125	3218.375	4845	0.021	0.45	0.50	0.29	8.4	9.4	5.4	
647371.125	3218.375	4846	0.025	0.45	0.50	0.29	4.7	5.2	3.0	
647371.125	3218.375	4847	0.025	0.45	0.49	0.28	7.4	8.0	4.6	
647320.813	3218.250	4848	0.025	0.45	0.49	0.30	7.4	8.0	4.9	
647371.125	3218.375	4849	0.025	0.45	0.49	0.30	2.6	2.8	1.7	
647371.125	3218.375	4850	0.025	0.45	0.49	0.29	2.6	2.8	1.7	
647371.125	3218.375	4851	0.025	0.46	0.49	0.30	4.8	5.1	3.1	
647320.813	3218.250	4852	0.025	0.46	0.49	0.29	2.7	2.8	1.7	
647371.125	3218.375	4853	0.025	0.46	0.49	0.29	7.5	8.0	4.7	
647371.125	3218.375	4854	0.025	0.46	0.49	0.30	10.2	10.9	6.7	
647371.125	3218.375	4855	0.025	0.46	0.49	0.30	14.3	15.3	9.4	
647320.813	3218.250	4856	0.025	0.45	0.48	0.30	14.0	15.0	9.4	
647371.125	3218.375	4857	0.025	0.45	0.48	0.31	4.7	5.0	3.2	
647371.125	3218.375	4858	0.045	0.45	0.49	0.31	18.0	19.8	12.4	
647371.125	3218.375	4859	0.045	0.44	0.48	0.31	17.6	19.2	12.4	
647320.813	3218.250	4860	0.040	0.44	0.49	0.32	7.3	8.2	5.3	
647371.125	3218.375	4861	0.040	0.43	0.48	0.31	7.2	8.0	5.2	
647371.125	3218.375	4862	0.040	0.43	0.48	0.33	7.2	8.0	5.5	
647371.125	3218.375	4863	0.040	0.43	0.48	0.32	4.0	4.4	3.0	
647320.813	3218.250	4864	0.040	0.43	0.48	0.33	11.2	12.5	8.6	
647371.125	3218.375	4865	0.024	0.42	0.48	0.33	9.0	10.3	7.1	
647371.125	3218.375	4866	0.024	0.42	0.48	0.33	4.2	4.8	3.3	
647371.125	3218.375	4867	0.024	0.42	0.48	0.33	6.6	7.5	5.2	
647320.813	3218.250	4868	0.024	0.42	0.47	0.34	4.2	4.7	3.4	
647371.125	3218.375	4869	0.024	0.42	0.47	0.35	9.0	10.1	7.5	
647371.125	3218.375	4870	0.024	0.41	0.47	0.34	8.8	10.1	7.3	
647371.125	3218.375	4871	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647320.813	3218.250	4872	0.024	0.41	0.47	0.35	12.3	14.1	10.5	
647371.125	3218.375	4873	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647371.125	3218.375	4874	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647371.125	3218.375	4875	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647320.813	3218.250	4876	0.024	0.41	0.47	0.36	2.3	2.6	2.0	
647371.125	3218.375	4877	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	4878	0.024	0.40	0.46	0.36	2.2	2.6	2.0	

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647371.125	3218.375	4679	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647371.125	3218.375	4680	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647320.813	3218.250	4681	0.024	0.40	0.46	0.38	2.2	2.6	2.0	
647371.125	3218.375	4682	0.024	0.40	0.46	0.37	4.0	4.6	3.7	
552275.000	2988.333	4683	0.024	0.40	0.45	0.37	4.0	4.5	3.7	
34984.563	913.904	4684	0.024	0.40	0.46	0.38	4.0	4.6	3.8	
126047.109	1732.929	4685	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
610167.875	3057.883	4686	0.005	0.48	0.52	0.39	0.6	0.6	0.5	
647371.125	3218.375	4687	0.005	0.48	0.54	0.39	0.6	0.6	0.5	
647320.813	3218.250	4688	0.005	0.48	0.54	0.38	0.6	0.6	0.4	
647371.125	3218.375	4689	0.004	0.48	0.53	0.37	0.4	0.5	0.3	
647371.125	3218.375	4690	0.004	0.48	0.54	0.37	0.4	0.5	0.3	
647371.125	3218.375	4691	0.004	0.49	0.54	0.37	0.5	0.5	0.3	
647320.813	3218.250	4692	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4693	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4694	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647371.125	3218.375	4695	0.004	0.49	0.56	0.37	0.5	0.5	0.3	
647320.813	3218.250	4696	0.004	0.49	0.56	0.36	0.8	0.9	0.6	
647371.125	3218.375	4697	0.004	0.50	0.56	0.36	0.8	0.9	0.6	
647371.125	3218.375	4698	0.004	0.50	0.56	0.35	0.5	0.5	0.3	
647371.125	3218.375	4699	0.004	0.51	0.57	0.35	0.5	0.5	0.3	
647320.813	3218.250	4700	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647371.125	3218.375	4701	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647371.125	3218.375	4702	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647371.125	3218.375	4703	0.004	0.51	0.57	0.35	0.5	0.5	0.3	
597533.625	3049.347	4704	0.004	0.51	0.57	0.34	0.5	0.5	0.3	
40760.891	1032.457	4705	0.004	0.51	0.57	0.34	0.5	0.5	0.3	
12383.438	537.312	4706	0.022	0.46	0.51	0.31	6.6	7.3	4.5	
435584.750	2830.137	4707	0.022	0.46	0.51	0.30	4.2	4.7	2.7	
647320.813	3218.250	4708	0.022	0.46	0.51	0.30	12.6	14.0	8.2	
647371.125	3218.375	4709	0.022	0.46	0.50	0.30	9.0	9.8	5.9	
647371.125	3218.375	4710	0.022	0.46	0.50	0.30	6.6	7.2	4.3	
647371.125	3218.375	4711	0.021	0.46	0.50	0.30	4.0	4.4	2.6	
647320.813	3218.250	4712	0.024	0.46	0.50	0.30	7.2	7.8	4.7	
647371.125	3218.375	4713	0.021	0.45	0.50	0.29	8.4	9.4	5.4	
647371.125	3218.375	4714	0.021	0.45	0.50	0.30	11.8	13.1	7.9	
647371.125	3218.375	4715	0.021	0.45	0.50	0.30	8.4	9.4	5.6	
647320.813	3218.250	4716	0.021	0.45	0.50	0.30	6.2	6.9	4.1	
647371.125	3218.375	4717	0.025	0.45	0.49	0.30	2.6	2.8	1.7	
647371.125	3218.375	4718	0.025	0.46	0.49	0.30	7.5	8.0	4.9	
647371.125	3218.375	4719	0.025	0.46	0.49	0.30	7.5	8.0	4.9	
647320.813	3218.250	4720	0.025	0.46	0.49	0.29	2.7	2.8	1.7	
647371.125	3218.375	4721	0.025	0.46	0.49	0.30	2.7	2.8	1.7	
647371.125	3218.375	4722	0.025	0.46	0.49	0.30	7.5	8.0	4.9	
647371.125	3218.375	4723	0.025	0.45	0.49	0.30	10.0	10.9	6.7	
647320.813	3218.250	4724	0.025	0.45	0.48	0.31	18.2	19.4	12.5	
647371.125	3218.375	4725	0.025	0.45	0.48	0.31	18.2	19.4	12.5	
647371.125	3218.375	4726	0.045	0.45	0.49	0.32	8.4	9.2	6.0	
647371.125	3218.375	4727	0.045	0.45	0.49	0.32	13.2	14.4	9.4	
647320.813	3218.250	4728	0.040	0.43	0.46	0.31	7.2	8.0	5.2	
647371.125	3218.375	4729	0.040	0.43	0.48	0.31	7.2	8.0	5.2	
647371.125	3218.375	4730	0.040	0.43	0.46	0.33	11.2	12.5	8.6	

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647371.125	3218.375	4731	0.040	0.43	0.46	0.32	15.3	17.1	11.4	
647320.813	3218.250	4732	0.024	0.43	0.46	0.33	6.7	7.5	5.2	
647371.125	3218.375	4733	0.024	0.42	0.46	0.33	16.3	18.6	12.8	
647371.125	3218.375	4734	0.024	0.42	0.46	0.33	4.2	4.8	3.3	
647371.125	3218.375	4735	0.024	0.42	0.46	0.34	6.6	7.5	5.3	
647320.813	3218.250	4736	0.024	0.42	0.46	0.34	4.2	4.8	3.4	
647371.125	3218.375	4737	0.024	0.42	0.47	0.35	6.6	7.4	5.5	
647371.125	3218.375	4738	0.024	0.41	0.47	0.34	12.3	14.1	10.2	
647371.125	3218.375	4739	0.024	0.41	0.47	0.35	2.3	2.6	1.9	
647320.813	3218.250	4740	0.024	0.41	0.47	0.35	15.9	18.2	13.6	
647371.125	3218.375	4741	0.024	0.41	0.47	0.36	4.1	4.7	3.6	
647371.125	3218.375	4742	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647371.125	3218.375	4743	0.024	0.41	0.47	0.36	6.4	7.4	5.5	
647320.813	3218.250	4744	0.024	0.41	0.47	0.35	2.3	2.6	1.9	
647371.125	3218.375	4745	0.024	0.40	0.47	0.35	2.2	2.6	1.9	
647371.125	3218.375	4746	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	4747	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
647371.125	3218.375	4748	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
647320.813	3218.250	4749	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
624908.250	3096.879	4750	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
119230.031	1699.908	4751	0.024	0.40	0.46	0.37	4.0	4.6	3.7	
58692.375	1230.746	4752	0.005	0.48	0.52	0.40	0.6	0.6	0.5	
480510.094	2824.166	4753	0.004	0.48	0.53	0.39	0.4	0.5	0.4	
647723.125	3219.250	4754	0.005	0.48	0.54	0.39	1.0	1.1	0.8	
647773.438	3219.375	4755	0.004	0.48	0.53	0.38	0.4	0.5	0.4	
647773.438	3219.375	4756	0.004	0.48	0.54	0.38	0.4	0.5	0.4	
647773.438	3219.375	4757	0.004	0.49	0.54	0.38	0.5	0.5	0.4	
647723.125	3219.250	4758	0.004	0.49	0.54	0.37	0.5	0.5	0.3	
647773.438	3219.375	4759	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647773.438	3219.375	4760	0.004	0.49	0.55	0.37	0.5	0.5	0.3	
647773.438	3219.375	4761	0.004	0.50	0.56	0.38	0.5	0.5	0.4	
647723.125	3219.250	4762	0.004	C 50	0.57	0.37	0.8	0.9	0.6	
647773.438	3219.375	4763	0.004	0.50	0.56	0.38	0.8	0.9	0.6	
647773.438	3219.375	4764	0.004	0.50	0.56	0.38	0.5	0.5	0.3	
647773.438	3219.375	4765	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
647723.125	3219.250	4766	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
647773.438	3219.375	4767	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647773.438	3219.375	4768	0.004	0.51	0.58	0.35	0.5	0.5	0.3	
647773.438	3219.375	4769	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
346778.906	2523.976	4770	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
5708.391	388.694	4771	0.022	0.46	0.51	0.31	6.6	7.3	4.5	
357625.625	2821.748	4772	0.022	0.46	0.51	0.31	6.6	7.3	4.5	
647773.438	3219.375	4773	0.022	0.46	0.50	0.31	4.2	4.6	2.8	
647773.438	3219.375	4774	0.040	0.46	0.50	0.31	16.4	17.8	11.1	
647773.438	3219.375	4775	0.021	0.45	0.50	0.30	6.2	6.9	4.1	
647723.125	3219.250	4776	0.021	0.46	0.50	0.31	6.3	6.9	4.3	
647773.438	3219.375	4777	0.021	0.45	0.50	0.30	6.2	6.9	4.1	
647773.438	3219.375	4778	0.021	0.45	0.50	0.30	8.4	9.4	5.6	
647773.438	3219.375	4779	0.021	0.45	0.50	0.30	6.2	6.9	4.1	
647723.125	3219.250	4780	0.021	0.45	0.50	0.29	2.2	2.4	1.4	
647773.438	3219.375	4781	0.021	0.46	0.50	0.31	8.6	9.4	5.8	
647773.438	3219.375	4782	0.025	0.46	0.50	0.30	7.5	8.2	4.9	

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647773.438	3219.375	4783	0.025	0.46	0.48	0.30	7.5	8.0	4.9	
647723.125	3219.250	4784	0.025	0.46	0.48	0.30	7.5	8.0	4.9	
647773.438	3219.375	4785	0.025	0.46	0.48	0.30	4.8	5.1	3.1	
647773.438	3219.375	4786	0.025	0.45	0.48	0.30	4.7	5.1	3.1	
647773.438	3219.375	4787	0.040	0.45	0.49	0.31	11.8	12.8	8.1	
647723.125	3219.250	4788	0.025	0.45	0.48	0.31	7.4	7.8	5.1	
647773.438	3219.375	4789	0.025	0.45	0.48	0.31	22.9	24.4	15.7	
647773.438	3219.375	4790	0.025	0.45	0.49	0.32	18.2	19.8	12.9	
647773.438	3219.375	4791	0.045	0.46	0.49	0.32	13.2	14.4	9.4	
647723.125	3219.250	4792	0.045	0.43	0.48	0.31	12.8	14.1	9.1	
647773.438	3219.375	4793	0.040	0.43	0.48	0.31	11.2	12.5	8.1	
647773.438	3219.375	4794	0.040	0.43	0.49	0.33	7.2	8.2	5.5	
647773.438	3219.375	4795	0.040	0.43	0.49	0.32	27.8	31.0	20.7	
647723.125	3219.250	4796	0.040	0.43	0.48	0.33	7.2	8.0	5.5	
647773.438	3219.375	4797	0.024	0.42	0.48	0.33	12.8	14.4	9.9	
647773.438	3219.375	4798	0.024	0.42	0.48	0.33	9.0	10.3	7.1	
647773.438	3219.375	4799	0.024	0.42	0.49	0.34	6.8	7.7	5.3	
647723.125	3219.250	4800	0.024	0.42	0.48	0.34	4.2	4.8	3.4	
647773.438	3219.375	4801	0.024	0.42	0.48	0.35	9.0	10.3	7.5	
647773.438	3219.375	4802	0.024	0.41	0.47	0.34	12.3	14.1	10.2	
647773.438	3219.375	4803	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647723.125	3219.250	4804	0.024	0.41	0.47	0.35	15.9	18.2	13.6	
647773.438	3219.375	4805	0.024	0.41	0.48	0.36	12.3	14.4	10.8	
647773.438	3219.375	4806	0.024	0.41	0.47	0.35	15.9	18.2	13.6	
647773.438	3219.375	4807	0.024	0.41	0.47	0.35	15.9	18.2	13.6	
647723.125	3219.250	4808	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647773.438	3219.375	4809	0.024	0.41	0.47	0.36	6.4	7.4	5.6	
647773.438	3219.375	4810	0.024	0.40	0.47	0.36	2.2	2.6	2.0	
647773.438	3219.375	4811	0.024	0.40	0.48	0.36	6.3	7.2	5.6	
647773.438	3219.375	4812	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
645309.250	3213.272	4813	0.024	0.40	0.46	0.36	2.2	2.6	2.0	
248176.375	2430.644	4814	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
403641.688	2841.654	4815	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
57628.750	1140.920	4816	0.005	0.48	0.53	0.40	0.6	0.6	0.5	
482080.500	2900.782	4817	0.005	0.48	0.53	0.40	1.0	1.1	0.8	
647371.125	3218.375	4818	0.004	0.48	0.54	0.39	0.4	0.5	0.4	
647371.125	3218.375	4819	0.004	0.48	0.53	0.39	0.4	0.5	0.4	
647371.125	3218.375	4820	0.004	0.49	0.54	0.38	0.5	0.5	0.4	
647320.813	3218.250	4821	0.004	0.49	0.54	0.38	0.5	0.5	0.4	
647371.125	3218.375	4822	0.004	0.50	0.55	0.38	0.5	0.5	0.4	
647371.125	3218.375	4823	0.004	0.50	0.55	0.38	0.5	0.5	0.4	
647371.125	3218.375	4824	0.004	0.50	0.56	0.38	0.5	0.5	0.4	
647320.813	3218.250	4825	0.004	0.50	0.56	0.38	0.8	0.9	0.6	
647371.125	3218.375	4826	0.004	0.50	0.56	0.37	0.5	0.5	0.3	
647371.125	3218.375	4827	0.004	0.50	0.56	0.36	0.5	0.5	0.3	
647371.125	3218.375	4828	0.004	0.50	0.56	0.36	0.5	0.5	0.3	
647320.813	3218.250	4829	0.004	0.51	0.57	0.38	0.5	0.5	0.3	
647371.125	3218.375	4830	0.004	0.50	0.57	0.36	0.5	0.5	0.3	
647371.125	3218.375	4831	0.004	0.51	0.56	0.36	0.5	0.5	0.3	
647177.125	3208.561	4832	0.004	0.51	0.57	0.35	0.5	0.5	0.3	
109310.375	1877.488	4833	0.004	0.51	0.57	0.35	0.5	0.5	0.3	
9264.000	498.888	4834	0.022	0.47	0.51	0.32	4.3	4.7	2.9	

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528820.250	2945.853	4835	0.022	0.47	0.51	0.32	8.2	10.0	6.3	
647371.125	3218.375	4836	0.040	0.47	0.51	0.32	16.8	18.2	11.4	
647371.125	3218.375	4837	0.024	0.48	0.50	0.32	4.8	5.0	3.2	
647320.813	3218.250	4838	0.021	0.46	0.50	0.32	6.3	6.9	4.4	
647371.125	3218.375	4839	0.021	0.45	0.50	0.31	3.9	4.4	2.7	
647371.125	3218.375	4840	0.021	0.46	0.50	0.31	2.2	2.4	1.5	
647371.125	3218.375	4841	0.021	0.46	0.51	0.31	4.0	4.5	2.7	
647320.813	3218.250	4842	0.021	0.46	0.50	0.30	6.3	6.9	4.1	
647371.125	3218.375	4843	0.021	0.46	0.50	0.31	8.6	9.4	5.8	
647371.125	3218.375	4844	0.021	0.46	0.50	0.30	6.3	6.9	4.1	
647371.125	3218.375	4845	0.021	0.46	0.50	0.30	15.6	17.0	10.2	
647320.813	3218.250	4846	0.025	0.46	0.50	0.30	14.3	15.6	9.4	
647371.125	3218.375	4847	0.025	0.45	0.48	0.30	10.0	10.9	6.7	
647371.125	3218.375	4848	0.025	0.45	0.48	0.31	10.0	10.9	6.9	
647371.125	3218.375	4849	0.025	0.45	0.48	0.31	18.2	19.4	12.5	
647320.813	3218.250	4850	0.025	0.45	0.49	0.31	14.0	15.3	9.7	
647371.125	3218.375	4851	0.025	0.45	0.48	0.31	14.0	15.0	9.7	
647371.125	3218.375	4852	0.040	0.45	0.49	0.32	38.6	39.8	28.0	
647371.125	3218.375	4853	0.040	0.45	0.48	0.32	16.0	17.5	11.4	
647320.813	3218.250	4854	0.040	0.43	0.48	0.32	11.2	12.5	8.4	
647371.125	3218.375	4855	0.040	0.43	0.48	0.32	7.2	8.0	5.3	
647371.125	3218.375	4856	0.040	0.43	0.49	0.33	21.5	24.5	16.5	
647371.125	3218.375	4857	0.040	0.43	0.48	0.33	27.8	31.0	21.3	
647320.813	3218.250	4858	0.040	0.42	0.48	0.33	11.0	12.5	8.6	
647371.125	3218.375	4859	0.024	0.42	0.48	0.33	12.6	14.4	9.9	
647371.125	3218.375	4860	0.024	0.42	0.48	0.33	9.0	10.3	7.1	
647371.125	3218.375	4861	0.024	0.42	0.48	0.34	6.6	7.5	5.3	
647320.813	3218.250	4862	0.024	0.42	0.48	0.34	6.6	7.5	5.3	
647371.125	3218.375	4863	0.024	0.42	0.48	0.35	6.6	7.5	5.5	
647371.125	3218.375	4864	0.024	0.41	0.48	0.34	4.1	4.8	3.4	
647371.125	3218.375	4865	0.024	0.41	0.47	0.35	4.1	4.7	3.5	
647320.813	3218.250	4866	0.024	0.41	0.47	0.35	6.4	7.4	5.5	
647371.125	3218.375	4867	0.024	0.41	0.48	0.36	6.4	7.5	5.6	
647371.125	3218.375	4868	0.024	0.41	0.47	0.36	4.1	4.7	3.6	
647371.125	3218.375	4869	0.024	0.41	0.47	0.35	12.3	14.1	10.5	
647320.813	3218.250	4870	0.024	0.41	0.47	0.35	15.9	18.2	13.6	
647371.125	3218.375	4871	0.024	0.41	0.47	0.36	6.4	7.4	5.6	
647371.125	3218.375	4872	0.024	0.40	0.47	0.36	4.0	4.7	3.6	
647371.125	3218.375	4873	0.024	0.40	0.47	0.36	6.3	7.4	5.6	
647371.125	3218.375	4874	0.024	0.40	0.48	0.36	2.2	2.6	2.0	
308.719	80.034	4875	0.005	0.48	0.53	0.40	0.6	0.6	0.5	
71484.047	1782.828	4876	0.004	0.48	0.53	0.39	0.4	0.5	0.4	
212134.109	2319.779	4877	0.004	0.48	0.53	0.39	0.4	0.5	0.4	
567374.188	3007.280	4878	0.004	0.48	0.54	0.39	0.4	0.5	0.4	
647320.813	3218.250	4879	0.004	0.50	0.55	0.39	0.5	0.5	0.4	
647371.125	3218.375	4880	0.004	0.50	0.55	0.39	0.5	0.5	0.4	
647371.125	3218.375	4881	0.004	0.50	0.55	0.38	0.5	0.5	0.4	
647371.125	3218.375	4882	0.004	0.50	0.55	0.38	0.8	0.9	0.6	
647320.813	3218.250	4883	0.004	0.50	0.56	0.38	0.8	0.9	0.6	
647371.125	3218.375	4884	0.004	0.50	0.56	0.37	0.5	0.5	0.3	
647371.125	3218.375	4885	0.004	0.50	0.56	0.37	0.5	0.5	0.3	
647371.125	3218.375	4886	0.004	0.50	0.57	0.37	0.5	0.5	0.3	

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647320.813	3218.250	4887	0.004	0.50	0.57	0.36	0.5	0.5	0.3	
647371.125	3218.375	4888	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
647371.125	3218.375	4889	0.004	0.51	0.56	0.36	0.5	0.5	0.3	
401883.188	2774.828	4890	0.004	0.51	0.56	0.36	0.5	0.5	0.3	
110804.172	1404.882	4891	0.022	0.47	0.52	0.33	9.2	10.2	6.5	
368949.219	2546.921	4892	0.024	0.46	0.51	0.32	4.6	5.1	3.2	
413808.375	2840.580	4893	0.021	0.48	0.50	0.32	8.6	9.4	6.0	
428284.594	2788.270	4894	0.021	0.46	0.50	0.32	2.2	2.4	1.6	
594080.250	3080.553	4895	0.021	0.48	0.50	0.32	2.2	2.4	1.6	
642551.313	3182.703	4896	0.021	0.48	0.50	0.31	4.0	4.4	2.7	
647371.125	3218.375	4897	0.021	0.48	0.50	0.30	4.0	4.4	2.8	
647320.813	3218.250	4898	0.021	0.48	0.50	0.30	6.3	6.9	4.1	
647371.125	3218.375	4899	0.021	0.48	0.50	0.31	8.6	9.4	5.8	
647371.125	3218.375	4900	0.021	0.46	0.50	0.30	12.1	13.1	7.9	
647371.125	3218.375	4901	0.021	0.46	0.50	0.31	12.1	13.1	8.1	
647320.813	3218.250	4902	0.023	0.45	0.50	0.31	4.3	4.8	3.0	
647371.125	3218.375	4903	0.023	0.45	0.50	0.32	9.2	10.2	6.6	
647371.125	3218.375	4904	0.023	0.45	0.49	0.31	6.8	7.4	4.7	
647371.125	3218.375	4905	0.025	0.45	0.49	0.31	18.2	19.8	12.5	
647320.813	3218.250	4906	0.048	0.45	0.49	0.32	34.9	38.0	24.8	
647371.125	3218.375	4907	0.048	0.45	0.48	0.32	26.9	28.7	19.2	
647371.125	3218.375	4908	0.048	0.45	0.49	0.33	14.1	15.4	10.4	
647371.125	3218.375	4909	0.048	0.45	0.48	0.33	5.0	5.3	3.7	
647320.813	3218.250	4910	0.040	0.43	0.48	0.33	15.3	17.1	11.8	
647371.125	3218.375	4911	0.040	0.43	0.48	0.32	21.5	24.0	16.0	
647371.125	3218.375	4912	0.040	0.43	0.49	0.34	11.2	12.8	8.9	
647371.125	3218.375	4913	0.040	0.43	0.48	0.34	7.2	8.0	5.7	
647320.813	3218.250	4914	0.040	0.42	0.48	0.33	11.0	12.5	8.6	
647371.125	3218.375	4915	0.024	0.42	0.48	0.34	9.0	10.3	7.3	
647371.125	3218.375	4916	0.024	0.42	0.48	0.34	9.0	10.3	7.3	
647371.125	3218.375	4917	0.024	0.42	0.48	0.35	4.2	4.8	3.5	
647320.813	3218.250	4918	0.024	0.42	0.48	0.34	4.2	4.8	3.4	
647371.125	3218.375	4919	0.024	0.41	0.48	0.34	6.4	7.5	5.3	
647371.125	3218.375	4920	0.024	0.41	0.48	0.35	4.1	4.8	3.5	
647371.125	3218.375	4921	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647320.813	3218.250	4922	0.024	0.41	0.47	0.36	4.1	4.7	3.6	
647371.125	3218.375	4923	0.024	0.41	0.48	0.36	8.8	10.3	7.7	
647371.125	3218.375	4924	0.024	0.41	0.48	0.37	12.3	14.4	11.1	
647371.125	3218.375	4925	0.024	0.41	0.47	0.38	8.8	10.1	7.7	
647320.813	3218.250	4926	0.024	0.41	0.47	0.35	8.8	10.1	7.5	
647371.125	3218.375	4927	0.024	0.41	0.47	0.35	12.3	14.1	10.5	
647371.125	3218.375	4928	0.024	0.40	0.47	0.36	6.3	7.4	5.6	
647371.125	3218.375	4929	0.024	0.40	0.47	0.36	4.0	4.7	3.6	
616851.625	3081.486	4930	0.024	0.40	0.47	0.36	2.2	2.6	2.0	
56358.703	1230.111	4931	0.024	0.40	0.46	0.37	2.2	2.6	2.1	
125317.938	1820.973	4932	0.004	0.48	0.54	0.39	0.5	0.5	0.4	
643411.563	3188.189	4933	0.004	0.50	0.56	0.39	0.5	0.5	0.4	
647773.438	3219.375	4934	0.004	0.50	0.55	0.39	0.5	0.5	0.4	
417115.500	2801.810	4935	0.004	0.50	0.56	0.39	0.5	0.5	0.4	
236786.172	2238.814	4936	0.004	0.50	0.55	0.38	0.8	0.9	0.6	
298515.875	2384.748	4937	0.004	0.50	0.56	0.38	0.8	0.9	0.6	
418087.125	2806.246	4938	0.004	0.50	0.56	0.37	0.5	0.5	0.3	

548520.438	2869.371	4939	0.004	0.50	0.57	0.37	0.5	0.5	0.3	
524404.625	2833.388	4940	0.004	0.50	0.57	0.37	0.5	0.5	0.3	
377878.500	2834.934	4941	0.004	0.50	0.57	0.37	0.5	0.5	0.3	
472887.583	2760.200	4942	0.004	0.50	0.57	0.37	0.5	0.5	0.3	
280232.438	2482.240	4943	0.004	0.51	0.57	0.36	0.5	0.5	0.3	
2417.156	241.807	4944	0.001	0.50	0.58	0.36	0.1	0.1	0.1	
83880.453	1540.918	4945	0.021	0.46	0.50	0.33	2.2	2.4	1.6	
468789.125	2884.176	4946	0.021	0.46	0.50	0.31	2.2	2.4	1.5	
647723.125	3219.250	4947	0.021	0.46	0.50	0.31	6.3	6.9	4.3	
647773.438	3219.375	4948	0.021	0.46	0.50	0.32	6.3	6.9	4.4	
647773.438	3219.375	4949	0.021	0.46	0.50	0.31	2.2	2.4	1.5	
647773.438	3219.375	4950	0.021	0.46	0.50	0.32	8.6	9.4	6.0	
647723.125	3219.250	4951	0.021	0.45	0.50	0.31	6.2	6.9	4.3	
647773.438	3219.375	4952	0.023	0.45	0.50	0.32	2.4	2.7	1.7	
647773.438	3219.375	4953	0.023	0.45	0.49	0.31	4.3	4.7	3.0	
647773.438	3219.375	4954	0.023	0.45	0.49	0.32	9.2	10.0	6.6	
647723.125	3219.250	4955	0.045	0.45	0.49	0.32	32.7	35.6	23.3	
647773.438	3219.375	4956	0.046	0.45	0.49	0.32	26.9	29.3	19.2	
647773.438	3219.375	4957	0.045	0.45	0.49	0.33	13.2	14.4	9.7	
647773.438	3219.375	4958	0.045	0.44	0.49	0.33	17.6	19.6	13.2	
647723.125	3219.250	4959	0.040	0.44	0.48	0.33	22.0	24.0	16.5	
647773.438	3219.375	4960	0.040	0.43	0.48	0.33	7.2	8.0	5.5	
647773.438	3219.375	4961	0.040	0.43	0.48	0.33	7.2	8.0	5.5	
647773.438	3219.375	4962	0.040	0.43	0.48	0.34	7.2	8.0	5.7	
647723.125	3219.250	4963	0.040	0.42	0.48	0.33	11.0	12.5	8.6	
647773.438	3219.375	4964	0.040	0.42	0.48	0.34	11.0	12.5	8.9	
647773.438	3219.375	4965	0.024	0.42	0.48	0.34	4.2	4.8	3.4	
647773.438	3219.375	4966	0.024	0.42	0.48	0.35	4.2	4.8	3.5	
647723.125	3219.250	4967	0.024	0.42	0.48	0.35	4.2	4.8	3.5	
647773.438	3219.375	4968	0.024	0.41	0.48	0.34	6.4	7.5	5.3	
647773.438	3219.375	4969	0.024	0.41	0.48	0.35	8.8	10.3	7.5	
647773.438	3219.375	4970	0.024	0.41	0.48	0.35	4.1	4.8	3.5	
647723.125	3219.250	4971	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
647773.438	3219.375	4972	0.024	0.41	0.47	0.36	6.4	7.4	5.6	
647773.438	3219.375	4973	0.024	0.41	0.47	0.37	2.3	2.6	2.1	
647773.438	3219.375	4974	0.024	0.41	0.47	0.37	4.1	4.7	3.7	
647723.125	3219.250	4975	0.024	0.41	0.47	0.36	6.4	7.4	5.6	
647773.438	3219.375	4976	0.024	0.41	0.47	0.36	12.3	14.1	10.8	
647773.438	3219.375	4977	0.024	0.40	0.47	0.36	8.8	10.1	7.7	
647395.125	3203.869	4978	0.024	0.40	0.47	0.36	8.6	10.1	7.7	
208161.641	2386.074	4979	0.024	0.40	0.47	0.36	4.0	4.7	3.6	
340742.750	2420.089	4980	0.004	0.50	0.55	0.40	0.5	0.5	0.4	
260270.703	2421.914	4981	0.004	0.50	0.55	0.40	0.5	0.5	0.4	
107.250	50.506	4982	0.004	0.50	0.55	0.39	0.8	0.9	0.6	
530.719	115.940	4983	0.001	0.46	0.50	0.31	0.2	0.2	0.1	
219390.219	2311.689	4984	0.021	0.46	0.50	0.31	4.0	4.4	2.7	
594289.375	3031.524	4985	0.021	0.46	0.51	0.32	6.3	7.0	4.4	
647371.125	3218.375	4986	0.021	0.46	0.50	0.32	8.6	9.4	6.0	
647371.125	3218.375	4987	0.021	0.46	0.50	0.32	12.1	13.1	8.4	
647320.813	3218.250	4988	0.021	0.45	0.50	0.32	8.4	9.4	6.0	
647371.125	3218.375	4989	0.021	0.45	0.50	0.32	8.4	9.4	6.0	
647371.125	3218.375	4990	0.021	0.45	0.49	0.32	3.9	4.3	2.8	

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647371.125	3218.375	4991	0.021	0.45	0.49	0.32	6.2	6.7	4.4	
647320.813	3218.250	4992	0.021	0.45	0.49	0.32	8.4	9.2	6.0	
647371.125	3218.375	4993	0.040	0.45	0.49	0.32	29.1	31.7	20.7	
647371.125	3218.375	4994	0.040	0.45	0.49	0.33	29.1	31.7	21.3	
647371.125	3218.375	4995	0.045	0.44	0.49	0.33	24.7	27.5	18.5	
647320.813	3218.250	4996	0.045	0.44	0.48	0.33	32.0	35.6	24.0	
647371.125	3218.375	4997	0.025	0.43	0.49	0.33	13.4	15.3	10.3	
647371.125	3218.375	4998	0.025	0.43	0.48	0.34	13.4	15.0	10.6	
647371.125	3218.375	4999	0.025	0.43	0.48	0.34	7.0	7.8	5.6	
647320.813	3218.250	5000	0.025	0.42	0.48	0.33	4.4	5.0	3.4	
647371.125	3218.375	5001	0.028	0.42	0.48	0.33	4.9	5.6	3.8	
647371.125	3218.375	5002	0.024	0.42	0.48	0.35	4.2	4.8	3.5	
647371.125	3218.375	5003	0.024	0.42	0.48	0.35	2.3	2.7	1.9	
647320.813	3218.250	5004	0.024	0.41	0.48	0.35	4.1	4.8	3.5	
647371.125	3218.375	5005	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647371.125	3218.375	5006	0.024	0.41	0.48	0.35	8.8	10.3	7.5	
647371.125	3218.375	5007	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647320.813	3218.250	5008	0.024	0.41	0.48	0.35	4.1	4.8	3.5	
647371.125	3218.375	5009	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
647371.125	3218.375	5010	0.024	0.41	0.47	0.37	6.4	7.4	5.6	
647371.125	3218.375	5011	0.009	0.41	0.47	0.37	0.9	1.0	0.8	
647320.813	3218.250	5012	0.040	0.33	0.38	0.29	5.5	6.3	4.8	
647371.125	3218.375	5013	0.026	0.41	0.47	0.36	7.0	8.0	6.1	
647371.125	3218.375	5014	0.028	0.40	0.46	0.36	9.3	10.7	8.3	
464399.936	2865.741	5015	0.026	0.40	0.47	0.36	9.3	10.9	8.3	
55627.531	1154.376	5016	0.021	0.46	0.50	0.32	6.3	6.9	4.4	
376593.750	2854.951	5017	0.021	0.46	0.51	0.33	6.3	7.0	4.5	
634151.375	3129.084	5018	0.021	0.46	0.50	0.32	6.3	6.9	4.4	
647320.813	3218.250	5019	0.021	0.45	0.50	0.32	8.4	9.4	6.0	
647371.125	3218.375	5020	0.021	0.45	0.50	0.32	19.2	21.3	13.7	
647371.125	3218.375	5021	0.021	0.45	0.49	0.32	15.3	16.6	10.9	
647371.125	3218.375	5022	0.021	0.45	0.49	0.32	11.8	12.8	8.4	
647320.813	3218.250	5023	0.021	0.45	0.49	0.33	11.8	12.8	8.6	
647371.125	3218.375	5024	0.045	0.45	0.49	0.33	25.3	27.5	18.5	
647371.125	3218.375	5025	0.040	0.45	0.49	0.33	11.8	12.8	8.6	
647371.125	3218.375	5026	0.045	0.44	0.49	0.33	17.6	19.6	13.2	
647320.813	3218.250	5027	0.045	0.44	0.49	0.33	17.6	19.6	13.2	
647371.125	3218.375	5028	0.045	0.43	0.49	0.33	12.6	14.4	9.7	
647371.125	3218.375	5029	0.025	0.43	0.49	0.34	7.0	8.0	5.6	
647371.125	3218.375	5030	0.025	0.42	0.49	0.33	9.4	10.9	7.4	
647320.813	3218.250	5031	0.028	0.43	0.49	0.34	2.8	3.2	2.2	
647371.125	3218.375	5032	0.028	0.42	0.48	0.33	2.7	3.1	2.1	
647371.125	3218.375	5033	0.024	0.42	0.48	0.36	4.2	4.8	3.5	
647371.125	3218.375	5034	0.028	0.42	0.48	0.35	2.7	3.1	2.3	
647320.813	3218.250	5035	0.028	0.41	0.48	0.35	2.7	3.1	2.3	
647371.125	3218.375	5036	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647371.125	3218.375	5037	0.024	0.41	0.48	0.35	4.1	4.8	3.5	
647371.125	3218.375	5038	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647320.813	3218.250	5039	0.024	0.41	0.48	0.35	2.3	2.7	1.9	
647371.125	3218.375	5040	0.024	0.41	0.48	0.36	2.3	2.7	2.0	
647371.125	3218.375	5041	0.024	0.41	0.47	0.36	6.4	7.4	5.6	
647371.125	3218.375	5042	0.009	0.33	0.38	0.29	0.7	0.8	0.6	

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647320.813	3218.250	5043	0.040	0.33	0.38	0.29	8.6	9.9	7.6	
647371.125	3218.375	5044	0.009	0.41	0.47	0.37	0.9	1.0	0.8	
647371.125	3218.375	5045	0.026	0.41	0.47	0.36	9.5	10.9	8.3	
198082.984	2183.415	5046	0.028	0.40	0.47	0.38	4.3	5.1	3.9	
64280.141	1386.707	5047	0.021	0.48	0.50	0.32	4.0	4.4	2.8	
259434.078	2418.500	5048	0.021	0.45	0.50	0.32	6.2	6.9	4.4	
598438.313	3037.781	5049	0.021	0.45	0.50	0.32	6.2	6.9	4.4	
647773.438	3219.375	5050	0.021	0.45	0.49	0.33	15.3	16.6	11.2	
647773.438	3219.375	5051	0.021	0.45	0.49	0.33	8.4	9.2	6.2	
647723.125	3219.250	5052	0.021	0.45	0.50	0.33	6.2	6.9	4.5	
647773.438	3219.375	5053	0.021	0.45	0.49	0.33	3.9	4.3	2.9	
647773.438	3219.375	5054	0.025	0.45	0.49	0.33	2.6	2.8	1.9	
647773.438	3219.375	5055	0.025	0.44	0.49	0.33	9.8	10.9	7.4	
647723.125	3219.250	5056	0.040	0.44	0.49	0.34	22.0	24.5	17.0	
647773.438	3219.375	5057	0.040	0.44	0.49	0.34	15.7	17.5	12.1	
647773.438	3219.375	5058	0.040	0.43	0.49	0.34	7.2	8.2	5.7	
647773.438	3219.375	5059	0.040	0.42	0.49	0.33	15.0	17.5	11.8	
647723.125	3219.250	5060	0.040	0.43	0.49	0.35	4.0	4.5	3.2	
647773.438	3219.375	5061	0.040	0.21	0.25	0.18	3.5	4.2	3.0	
647773.438	3219.375	5062	0.040	0.21	0.25	0.18	3.5	4.2	3.0	
647773.438	3219.375	5063	0.028	0.21	0.25	0.18	2.4	2.9	2.1	
647723.125	3219.250	5064	0.028	0.41	0.48	0.34	2.7	3.1	2.2	
647773.438	3219.375	5065	0.028	0.41	0.48	0.35	4.8	5.6	4.1	
647773.438	3219.375	5066	0.040	0.41	0.49	0.36	10.7	12.8	9.4	
647773.438	3219.375	5067	0.024	0.41	0.48	0.36	6.4	7.5	5.6	
647723.125	3219.250	5068	0.040	0.41	0.48	0.35	3.8	4.4	3.2	
647773.438	3219.375	5069	C.040	0.41	0.48	0.36	10.7	12.5	9.4	
647773.438	3219.375	5070	0.024	0.33	0.38	0.29	5.2	6.0	4.5	
647773.438	3219.375	5071	0.009	0.41	0.48	0.37	0.9	1.0	0.8	
647723.125	3219.250	5072	0.040	0.41	0.47	0.37	10.7	12.3	9.7	
647773.438	3219.375	5073	0.009	0.41	0.47	0.37	1.5	1.8	1.4	
532237.813	2853.938	5074	0.028	0.41	0.47	0.38	4.4	5.1	4.1	
7078.750	428.813	5075	0.028	0.40	0.46	0.36	2.4	2.8	2.2	
75131.063	1341.025	5076	0.021	0.45	0.50	0.33	3.9	4.4	2.9	
483739.313	2890.288	5077	0.021	0.45	0.50	0.33	3.9	4.4	2.9	
647371.125	3218.375	5078	0.021	0.45	0.49	0.33	2.2	2.4	1.6	
647320.813	3218.250	5079	0.025	0.45	0.50	0.33	4.7	5.2	3.4	
647371.125	3218.375	5080	0.021	0.45	0.49	0.33	3.9	4.3	2.9	
647371.125	3218.375	5081	0.021	0.45	0.49	0.33	2.2	2.4	1.6	
647371.125	3218.375	5082	0.025	0.44	0.49	0.33	13.7	15.3	10.3	
647320.813	3218.250	5083	0.025	0.44	0.49	0.34	9.8	10.9	7.8	
647371.125	3218.375	5084	0.040	0.44	0.49	0.34	11.5	12.8	8.9	
647371.125	3218.375	5085	0.045	0.43	0.49	0.33	8.0	9.2	6.2	
647371.125	3218.375	5086	0.040	0.42	0.49	0.33	11.0	12.6	8.6	
647320.813	3218.250	5087	0.040	0.42	0.49	0.34	15.0	17.5	12.1	
647371.125	3218.375	5088	0.040	0.43	0.49	0.34	11.2	12.8	8.9	
647371.125	3218.375	5089	0.028	0.42	0.49	0.34	2.7	3.2	2.2	
647371.125	3218.375	5090	0.028	0.42	0.49	0.35	4.9	5.7	4.1	
647320.813	3218.250	5091	0.040	0.42	0.48	0.35	7.0	8.0	5.8	
647371.125	3218.375	5092	0.028	0.41	0.48	0.36	4.8	5.6	4.1	
647371.125	3218.375	5093	0.040	0.41	0.48	0.35	10.7	12.5	9.1	
647371.125	3218.375	5094	0.040	0.41	0.49	0.38	3.8	4.5	3.3	

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647320.813	3218.250	5095	0.024	0.41	0.48	0.36	6.4	7.5	5.6	
647371.125	3218.375	5096	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
647371.125	3218.375	5097	0.024	0.41	0.47	0.36	4.1	4.7	3.6	
647371.125	3218.375	5098	0.009	0.41	0.47	0.36	1.5	1.8	1.3	
647320.813	3218.250	5099	0.040	0.41	0.48	0.37	14.6	17.1	13.2	
638167.750	3139.017	5100	0.009	0.41	0.47	0.36	2.4	2.8	2.2	
165288.219	1912.901	5101	0.026	0.41	0.47	0.36	2.5	2.8	2.3	
545.875	125.908	5102	0.001	0.45	0.50	0.34	0.2	0.2	0.1	
160008.625	2066.449	5103	0.021	0.45	0.48	0.33	2.2	2.4	1.6	
346189.906	2483.521	5104	0.021	0.45	0.50	0.34	3.9	4.4	3.0	
478520.250	3010.782	5105	0.021	0.45	0.50	0.35	3.9	4.4	3.1	
648251.125	3220.564	5106	0.021	0.46	0.51	0.35	8.6	9.5	6.5	
647371.125	3218.375	5107	0.021	0.44	0.49	0.33	11.5	12.8	8.6	
647320.813	3218.250	5108	0.025	0.44	0.49	0.33	4.6	5.1	3.4	
647371.125	3218.375	5109	0.025	0.44	0.49	0.34	2.5	2.8	2.0	
647371.125	3218.375	5110	0.025	0.43	0.49	0.33	7.0	8.0	5.4	
647371.125	3218.375	5111	0.040	0.43	0.49	0.34	7.2	8.2	5.7	
647320.813	3218.250	5112	0.040	0.42	0.49	0.34	7.0	8.2	5.7	
647371.125	3218.375	5113	0.040	0.43	0.48	0.34	15.3	17.5	12.1	
647371.125	3218.375	5114	0.028	0.42	0.49	0.34	10.5	12.2	8.5	
647371.125	3218.375	5115	0.028	0.42	0.49	0.34	4.9	5.7	4.0	
647320.813	3218.250	5116	0.028	0.42	0.48	0.35	4.9	5.6	4.1	
647371.125	3218.375	5117	0.028	0.41	0.48	0.35	4.8	5.6	4.1	
647371.125	3218.375	5118	0.028	0.41	0.48	0.35	2.7	3.1	2.3	
647371.125	3218.375	5119	0.024	0.41	0.48	0.35	6.4	7.5	5.5	
647320.813	3218.250	5120	0.009	0.41	0.49	0.36	2.4	2.9	2.1	
647371.125	3218.375	5121	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
647371.125	3218.375	5122	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
647371.125	3218.375	5123	0.009	0.41	0.47	0.36	1.5	1.8	1.3	
642107.875	3158.477	5124	0.009	0.41	0.47	0.36	0.9	1.0	0.8	
245893.984	2357.611	5125	0.045	0.41	0.48	0.36	4.3	5.0	4.0	
360017.063	2776.855	5126	0.021	0.45	0.49	0.35	6.2	6.7	4.8	
647773.438	3219.375	5127	0.021	0.44	0.49	0.34	3.8	4.3	3.0	
647723.125	3219.250	5128	0.025	0.44	0.49	0.34	2.5	2.8	2.0	
647773.438	3219.375	5129	0.025	0.44	0.49	0.35	2.5	2.8	2.0	
647773.438	3219.375	5130	0.025	0.44	0.49	0.35	2.5	2.8	2.0	
647773.438	3219.375	5131	0.025	0.43	0.49	0.35	4.5	5.1	3.6	
647723.125	3219.250	5132	0.028	0.42	0.48	0.34	14.7	17.1	11.9	
647773.438	3219.375	5133	0.028	0.42	0.49	0.34	7.7	9.0	6.2	
647773.438	3219.375	5134	0.028	0.43	0.48	0.34	19.5	22.2	15.4	
647773.438	3219.375	5135	0.028	0.42	0.49	0.35	4.9	5.7	4.1	
547413.188	2959.381	5136	0.028	0.42	0.49	0.35	4.9	5.7	4.1	
337584.344	2587.858	5137	0.028	0.42	0.48	0.35	4.9	5.6	4.1	
505544.938	2893.973	5138	0.028	0.41	0.48	0.35	4.8	5.6	4.1	
638697.188	3158.984	5139	0.028	0.41	0.48	0.35	4.8	5.6	4.1	
647723.125	3219.250	5140	0.009	0.41	0.48	0.36	1.5	1.8	1.3	
647773.438	3219.375	5141	0.009	0.41	0.48	0.36	0.9	1.0	0.8	
647773.438	3219.375	5142	0.024	0.41	0.48	0.36	4.1	4.8	3.6	
622528.750	3102.441	5143	0.009	0.41	0.47	0.36	1.5	1.8	1.3	
229724.156	2315.837	5144	0.045	0.41	0.47	0.36	12.1	13.8	10.6	
4412.203	321.478	5145	0.001	0.45	0.50	0.35	0.2	0.2	0.1	
207326.841	2121.108	5146	0.021	0.44	0.49	0.35	3.8	4.3	3.1	

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348824.844	2431.882	5147	0.025	0.44	0.49	0.34	2.5	2.8	2.0	
315574.838	2361.273	5148	0.025	0.44	0.49	0.35	2.5	2.8	2.0	
115758.286	2087.180	5149	0.025	0.44	0.49	0.35	2.5	2.8	2.0	
225640.203	2158.766	5150	0.025	0.44	0.49	0.35	4.6	5.1	3.6	
328283.968	2388.286	5151	0.025	0.42	0.49	0.34	4.4	5.1	3.5	
294830.866	2360.942	5152	0.026	0.42	0.49	0.34	4.9	5.7	4.0	
271178.886	2283.406	5153	0.026	0.43	0.49	0.35	7.9	8.0	6.4	
280805.489	2212.349	5154	0.028	0.43	0.49	0.36	5.0	5.7	4.2	
35816.809	823.870	5155	0.028	0.43	0.49	0.35	2.8	3.2	2.3	
38857.750	1244.759	5156	0.028	0.41	0.48	0.35	4.8	5.6	4.1	
183512.313	2114.876	5157	0.009	0.41	0.46	0.36	1.5	1.8	1.3	
275001.936	2282.876	5158	0.009	0.41	0.46	0.36	3.3	3.8	2.9	
207181.406	2117.381	5159	0.040	0.41	0.46	0.36	10.7	12.5	9.4	
27286.016	976.428	5160	0.009	0.41	0.46	0.36	0.9	1.0	0.8	

9.0 BIBLIOGRAPHY

Aberley, Doug. (1994). *Futures by Design - the Practice of Ecological Planning.* New Society Publishers, Gabriola Island, British Columbia.

Agriculture Canada. (1995). *The Health of Our Soils - Toward Sustainable Agriculture in Canada.* Agriculture and Agri-Food Canada Research Branch. Minister of Supply and Services, Ottawa, Ontario.

Anderson, M.S. and L.J. Knapik. (1984). *Agricultural Land Degradation in Western Canada: A Physical and Economic Overview.* Agriculture Canada, Regional Development Branch. Ministry of Supply and Services, Ottawa.

Archer, Douglas. (1996). personal communication. Mayor of City of Regina, Saskatchewan.

Armstrong, Brad. (1997). personal communication. Senior Rural Planner, Rural Municipality of Edenwold, Saskatchewan.

Ashley, Jo. (1997). personal communication. GIS Technician, McMaster University, Hamilton, Ontario.

Bradley, R.A. (1970). *Crop Response to fertilizers on Eroded and Non-Eroded Soils.* 14th Annual Manitoba Soil Science meeting.

Cameron, D.R., L.S. Crosson, and D.H. Pollock. (1992). *Avonlea Creek Sediment Loading: Pilot Study.* NORMAC A.E.S. Ltd., Swift Current, Saskatchewan.

Canada/Manitoba. (1997). *Water - Our Future - A Focus on Water Quality in Manitoba.* Canada-Manitoba Agreement on Agricultural Sustainability, Winnipeg, Manitoba.

Canada/Saskatchewan. (1995). *Landscaping - Prairie Style.* Canada-Saskatchewan Agricultural Green Plan Agreement. (Public Education Pamphlet). Queen's Printer of Saskatchewan, Regina, Saskatchewan.

Canadian Wheat Board [CWB]. (1955-95). *Crop Seeded Acreage Statistics.* Wheat Board Library, Winnipeg, Manitoba.

Centre of the Arts, Convention Centre and Auditorium. (1997). personal communication. Administrative Services. Regina, Saskatchewan.

Collins, Betty. (1996). personal communication. Director, Watershed Strategies, Sask Water, Moose Jaw, Saskatchewan.

Coote, D.R., J. Dumanski and J.F. Ramsey. (1981). *An Assessment of the Degradation of Agricultural Soils in Canada.* Research Branch, Agriculture Canada. LRRI Contribution #118.

Crawford, Bob. (1996). personal communication. Environmental Engineer, Municipal Engineering Department, City of Regina, Saskatchewan.

Crosson, L.S. (1976). *Soil Salinity Map of Saskatchewan.* M29. Saskatchewan Institute of Pedology. University of Saskatchewan. Saskatoon,

de Jong, E., C.B.M. Begg and R.G. Kachanoski. (1983) *Estimates of Soil Erosion and Deposition for some Saskatchewan Soils.* Canadian Journal of Soil Science. v.63: 607-617.

Delange, Peg. (1997). personal communication. Visitor Services. Royal Saskatchewan Museum, Regina, Saskatchewan.

Dockam, Ken. (1997). personal communication. Landscape Architect, Wascana Centre Authority, Regina, Saskatchewan.

Eblin, Ruth A. and William R. Eblin. (1994). *Agriculture.* The Encyclopedia of the Environment. Houghton Mifflin Company, New York.

Elliott, Doug H. (1997). personal communication. Saskatchewan Trends Monitor, Regina, Saskatchewan.

Ellis, J.G., D.F. Acton, and J.S. Clayton. (1965). *Soils of the Regina Map Area [72I Saskatchewan].* Saskatchewan Institute of Pedology. University of Saskatchewan. Modern Press, Saskatoon, Saskatchewan.

Environment Canada. (1989). *Monthly Records of Meteorological Observations in Canada.* Canadian Climate Centre. Ministry of Supply and Services, Ottawa.

Ewart, Bob. (1997). personal communication. Naturalist, Wascana Centre Authority, Regina, Saskatchewan.

Foster, G.R., D.K. McCool, K.G. Renaud, and W.C. Moldenhauer. (1981). *Conversion of the Universal Soil Loss Equation to SI Metric Units.* Journal of Soil and Water Conservation Society of America. v.36, no.6: 355-359.

Fries, Arnold. (1997). personal communication. Sewage Treatment Plant, City of Regina, Saskatchewan.

Georgia Basin Initiative, Ministry of Municipal Affairs, Ministry of Small Business, Tourism and Culture, Province of British Columbia Urban Salmon Habitat Program, and the Real Estate Foundation. (1995). *Navigating for Sustainability.* Canadian Cataloguing in Publication Data.

Gordon, David. (1990). *Green Cities - Ecologically Sound Approaches to Urban Space.* Black Rose Books, Montreal, Quebec.

Government of Saskatchewan. (1984). *An Act to assist Conservation and Development of the Agricultural Resources of Saskatchewan [C-27].* Queen's Printer of Saskatchewan.

Government of Saskatchewan. (1996). *Saskatchewan Wetland Management Policy Guide.* Queen's Printer of Saskatchewan, Regina, Saskatchewan.

Grigg, John. (1997). personal communication. Supervisor, Water Resource Administration, Sask Water, Weyburn, Saskatchewan.

Habitat Heritage Corporation. (1995). *The Green Banks Program - A Manitoba Shorelands Stewardship and Water Quality Initiative.* Manitoba Habitat Heritage Corporation, Winnipeg, Manitoba.

Hay, Andrew. (1997). personal communication. The International Coalition for Land/Water Stewardship in the Red River Basin, Winnipeg, Manitoba.

Heise, Rod. (1997). personal communication. Administrator, Rural Municipality of Lajord, Saskatchewan.

Herstein, H.H., L.J. Hughes, and R.C. Kirbyson. (1970). *Challenge and Survival: The History of Canada.* Prentice-Hall, Scarborough, Ontario.

Hogan, D.L., T.P. Rollerson, and S.C. Chatwin. (1994). *Gully Assessment Procedure for British Columbia Forests (Interim Methods).* Watershed Restoration Program. Ministry of Environment, Lands and Parks and Ministry of Forests. Province of British Columbia.

Hogg, W.D. and D.A. Carr. (1986). *Rainfall Frequency Atlas for Canada.* Canadian Climate Programs, Downsview, Ontario.

Hudson, Norman. (1995). *Soil Conservation, 3rd ed.* Iowa State University Press, Ames, Iowa.

Hutchison, Bill. (1996). personal communication. Councillor, City of Regina, Saskatchewan.

Jones, Lynn. (1997). personal communication. Reservation and Tours. Mackenzie Art Gallery, Regina, Saskatchewan.

Karon, Claude. (1997). personal communication. Administrator, Rural Municipality of Francis, Saskatchewan.

Keeley, E.R. and C.J. Walters. (1994). *The British Columbia Watershed Restoration Program: Summary of the Experimental Design, Monitoring, and Restoration Techniques Workshop.* Ministry of Environment, Lands and Parks and Ministry of Forests. Province of British Columbia.

Lamberdy, Neil. (1997). personal communication. Prairie Farm Rehabilitation Administration, Melville, Saskatchewan.

Leavitt, Dr. Peter. (1997). personal communication. Limnology Laboratory, University of Regina, Saskatchewan.

Lewis Jr., William M., James F. Saunders III, David W. Crumpacker Sr., and Charles Brendecke. (1984). *Eutrophication and Land Use - Lake Dillon, Colorado.* Ecological Studies Series #46. Springer-Verlag, New York.

Mitchell, J., H.C. Moss, and J.S. Clayton. (1977). *Soil Survey of Southern Saskatchewan (4th ed.)* College of Agriculture. University of Saskatchewan. Saskatoon, Saskatchewan.

Moss, H.C. (1965). *A Guide to Understanding Saskatchewan Soils.* Department of Soil Science. University of Saskatchewan. Modern Press, Saskatoon, Saskatchewan.

Mus, Janis. (1997). personal communication. Administrator, Rural Municipality of Wellington, Colfax, Saskatchewan.

Newton, Bob. (1997). personal communication. Tourism Regina, Saskatchewan.

Oborne, Brian. (1995). *An Evaluation of Water Management Initiatives Undertaken by the Deerwood Soil & Water Management Association.* Natural Resource Institute Practicum. University of Manitoba.

Parsons, Anthony J. and Athol D. Abrahams. (1993). *Overland Flow - Hydraulics and Erosion Mechanics.* Chapman & Hall, New York.

Paterson, J Blair. (1996). personal communication. Executive Director, Wascana Centre Authority, Regina, Saskatchewan.

Pentland, R.S. (1991). *Wascana Lake Water Management Study.* Water Resources Consultants, Ltd. Regina, Saskatchewan.

Pentland, R.S. (1992). *Wascana Lake Water Supply Enhancement.* Water Resource Consultants Ltd. Regina, Saskatchewan.

Peterson, Arthur E. and James B. Swan. (1979). *Universal Soil Loss Equation: Past, Present, and Future.* SSSA Special Publication Number 8. Soil Science Society of America, Madison, Wisconsin.

PFRA. (1983). *Land Degradation and Soil Conservation Issues on the Canadian Prairies.* Soil and Water Conservation Branch, Agriculture Canada. Prairie Farm Rehabilitation Administration. Regina, Saskatchewan.

PFRA. (1987). *Prairie Soil, Prairie Water - the PFRA Story.* Agriculture Canada/Prairie Farm Rehabilitation Association. (Public Information Brochure). Regina, Saskatchewan.

PFRA. (1992). *Small Dam Design and Construction Manual.* Prairie Farm Rehabilitation Administration, Regina, Saskatchewan.

PFRA. (1996). *Multi-Purpose Headwater Storage Dam Construction Drawings.* South Tobacco Creek Water Management Project. Morden, Manitoba.

PFRA. (1996). *South Tobacco Creek Pilot project - Effect of Headwater Storage on Runoff Peaks.* Canada-Manitoba Soil Conservation Agreement. Hydrology Report #142. Prairie Farm Rehabilitation Administration, Regina, Saskatchewan.

Pomeroy, Lawrence R. and James J. Alberts. (1988). *Concepts of Ecosystem Ecology.* Ecological Studies Series #67. Springer-Verlag, New York.

Ravera, Oscar. (1991). *Terrestrial and Aquatic Ecosystems - Perturbation and Recovery.* Series in Environmental Management, Science and Technology. Ellis Horwood, Toronto.

Riddell, W.A. (1992). *The Origin and Development of Wascana Centre.* Saskatchewan Tourism, Regina, Saskatchewan.

Ripley, P.O., William Kalbfleisch, S.J. Bourget, and D.J. Cooper. (1961). *Soil Erosion by Water.* Publication 1083, Agriculture Canada. Ministry of Supply and Services, Ottawa.

Ritchie, Kevin. (1997). personal communication. Administrator, Rural Municipality of Bratt's Lake, Wilcox, Saskatchewan.

Rollie, Donna. (1997). personal communication. Administrator, Rural Municipality of Sherwood, Grand Coulee, Saskatchewan.

Royal Commission on the Future of the Toronto Waterfront. (1992). *Regeneration: Toronto's Waterfront and the Sustainable City.* Ministry of Supply and Services, Ottawa.

Saskatchewan Department of Agriculture. (1964). *Preliminary Report on Improvement of Wascana Lake Area.* Water Development Division, Conservation and Development Branch. Regina, Saskatchewan.

Saskatchewan Department of Agriculture. (1965). *Supplementary Report on Improvement of Wascana Lake Area.* Water Development Division, Conservation and Development Branch. Regina, Saskatchewan.

Saskatchewan Science Centre/IMAX. (1997). personal communication. Communication Services and Visitor Tracking, Saskatchewan Science Centre, Regina.

Saskatchewan Wheat Pool. (1997). personal communication - Archie Eiffert. Kamsack, Saskatchewan.

SaskWater. (1987). *Water Control Assistance Program - Program Profile.* Saskatchewan Water Corporation, Moose Jaw, Saskatchewan.

SaskWater. (1993). *Erosion Control Assistance Program - Program Profile.* Saskatchewan Water Corporation, Moose Jaw, Saskatchewan.

Serge, Lenora. (1997). personal communication. Visitor Services. Canadian Broadcasting Corportation, Regina, Saskatchewan.

Shaw, Glen A. (1980). *Predicted Soil Erosion by Water for Various Soil Types.* 24th Annual Manitoba Soil Science Meeting.

Sopuck, Tim. (1997). personal communication. Habitat Heritage/Greenbanks Program, Department of Fisheries, Winnipeg, Manitoba.

Spence, Linda. (1997). personal communication. Visitor Tours and Services. Saskatchewan Legislative Assembly, Regina, Saskatchewan.

Star, J.E. and J.L. Estes. (1989). *Geographic Information Systems: An Introduction.* Prentice-Hall. Inglewood Cliffs, New Jersey.

Tanner, Edward W. (1997). personal communication. Soils and Crops Agrologist, Extension Service, Department of Agriculture and Food, Indian Head, Saskatchewan.

Tomlinson, R.F. (1976). *Computer Handling of Geographical Data.* UNESCO.

Troeh, Frederick R., J. Arthur Hobbs and Roy L. Donahue. (1991). *Soil and Water Conservation 2nd ed.* Prentice Hall, Englewood Cliffs, New Jersey.

United States Department of Agriculture. (1988). *Ephemeral Gully Erosion Model (EGEM) User's Manual. Version 1.1.* Soil Conservation Service.

Valenzuela, Carlos R. (1991). *Basic Principles of Geographic Information Systems.* ECSC, EEC, EAEC, Brussels and Luxembourg. Printed in the Netherlands.

Van der Ryn, Sim, and Stuart Cowan. (1996). *Ecological Design.* Island Press, Washington, D.C.

Waggoner, Jim. (1996) personal communication. Sask Water, Yorkton, Saskatchewan.

Waite, Don T. (1992). *Stretching Water Supplies - Alternate Technologies and Strategies.* Proceedings of the Seventh Biennial Plains Aquatic Research Conference, Canadian Plains Research Centre. University of Regina, Saskatchewan.

Wall, G.J., W.T. Dickson and J. Greuel. (1983). *Rainfall Erosion Indices for Canada east of the Rocky Mountain.* Canada Journal Soil Science vol. 68.

Wascana Centre Authority [WCA]. (1992). *Wascana Centre Master Plan.* Wascana Centre Authority/duToit, Allsopp, Hillier. Regina, Saskatchewan.

Wascana Centre Authority [WCA]. (1996). *Annual Record of Special Events at Wascana Centre.* Wascana Centre Authority. Regina, Saskatchewan.

Wascana Centre Authority [WCA]. (1996). *Annual Report.* Wascana Centre Authority. Regina, Saskatchewan.

Wascana Centre Authority [WCA]. (1996). *Monthy Visitations for Wascana Place, Diefenbaker Homestead, Gift Shop & Willow Island.* Wascana Centre Authority. Regina, Saskatchewan.

Wascana Centre Authority [WCA]. (1996). *Wascana Lake Management Plan: Report of Issues Arising from the Public Involvement Process.* Wascana Centre Authority. Regina, Saskatchewan.

Wharf, Brian. (1979). *Community Work in Canada.* McClelland and Stewart Limited, Toronto, Ontario.

Wischmeier, W.H. (1959). *A Rainfall Erosion Index for the Universal Soil Loss Equation.* Soil Science Society of America. v.23: 246-249.

Wischmeier, W.H. and D.D. Smith. (1958). *Rainfall Energy and Its Relationship to Soil Loss.* American Geophysical Union. v.39: 285-291.

Wischmeier, W.H. and D.D. Smith. (1965). *Predicting Rainfall Erosion Losses from Cropland East of the Rocky Mountains.* United States Department of Agriculture Handbook No. 282.

Wischmeier, W.H. and J.V. Mannering. (1969). *Relation of Soil Properties to Its Erodibility.* Soil Science Society of America. v.33: 131-137.

Wischmeier, W.H., C.B. Johnson and B.V. Cross. (1971). *A Soil Erodibility Nomograph for Farmland and Construction Sites.* Journal of Soil and Water Conservation. v.26: 189-193.

Zale, Alexander V. and David M. Leslie, Jr. (1989). *The Physiochemistry, Flora, and Fauna of Intermittent Prairie Streams.* United States Department of the Interior, Fish and Wildlife Service. Biological Report 89(5). Washington, D.C.