BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF: WATER QUALITY STANDARDS AND EFFLUENT LIMITATIONS FOR THE CHICAGO AREA WATERWAY SYSTEM AND THE LOWER DES PLAINES RIVER: PROPOSED AMENDMENTS TO 35 III. Adm. Code Parts 301, 302, 303 and 304

R08-9 (Rulemaking - Water)

NOTICE OF FILING

To: ALL COUNSEL OF RECORD (Service List Attached)

PLEASE TAKE NOTICE that on the 4th day of August, 2008, I electronically filed with

the Office of the Clerk of the Illinois Pollution Control Board:

- 1. Pre-Filed Testimony of Richard Lanyon;
- 2. Pre-Filed Testimony of William J. Stuba on behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning recreational designations of the Chicago Area Waterway System;
- 3. Pre-Filed Testimony of Samuel G. Dennison on Behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning justification for an additional aquatic life use tier for Bubbly Creek (south fork of the South Branch Chicago River);
- 4. Pre-Filed Testimony of Samuel G. Dennison on behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning Dissolved Oxygen (DO) standards proposed for protecting aquatic life in the Designated Aquatic Life Use A Waters and Aquatic Life Use B Waters of the Chicago Area Waterway System;
- 5. Pre-Filed Testimony of Samuel G. Dennison on behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning the classification of the Calumet-Sag Channel as an Aquatic Life Use B Water;

- 6. Pre-Filed Testimony of Samuel G. Dennison on behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning recreational designations of the Chicago Area Waterway System;
- 7. Pre-Filed Testimony of Susan O'Connell;
- 8. Pre-Filed Testimony of Geeta Rijal;
- 9. Pre-Filed Testimony of Thomas E. Kunetz, P. E.;
- 10. Pre-Filed Testimony of Thomas Granato Aquatic Life Uses and Criteria;
- 11. Pre-Filed Testimony of Thomas Granato Recreational Uses and Standards;
- 12. Pre-Filed Testimony of Jennifer Wasik Sediment Sample Collection;
- 13. Pre-Filed Testimony of Jennifer Wasis Chronic Cyanide Standard;
- 14. Pre-Filed Testimony of Chriso Petropoulou;
- 15. Pre-Filed Testimony of Charles P. Gerba;
- 16. Pre-Filed Testimony of Keith Tolson;
- 17. Pre-Filed Testimony of Samuel Dorevitch;
- 18. Pre-Filed Testimony of Ernest R. Blatchley III;
- 19. Pre-Filed Testimony of Charles N. Haas;
- 20. Pre-Filed Testimony of David R. Zenz Dissolved Oxygen Enhancement Studies;
- 21. Pre-Filed Testimony of David R. Zenz Effluent Disinfection Studies;
- 22. Pre-Filed Testimony of Stephen F. McGowan Environmental Assessment of Supplemental Aeration Technologies for Increasing Dissolved Oxygen Concentration in the Chicago Area Waterways;
- 23. Pre-Filed Testimony of Stephen F. McGowan Implementation of Disinfection Requirement;
- 24. Pre-Filed Testimony of John Mastracchio Impacts of Aeration Stations;
- 25. Pre-Filed Testimony of John Mastracchio Impacts of Disinfection Requirements;

- 26. Pre-Filed Testimony of Adrienne D. Nemura;
- 27. Pre-Filed Testimony of Charles S. Melching;
- 28. Pre-Filed Testimony of Scudder D. Mackey;
- 29. Pre-Filed Testimony of Marcelo H. Garcia, Phd; and
- 30. Pre-Filed Testimony of Paul L. Freedman, P.E., BCEE,

copies of which are hereby served upon you by CD Disc.

Dated: August 4, 2008

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

By: One of Its Attorneys

Fredric P. Andes Carolyn S. Hesse David T. Ballard **BARNES & THORNBURG LLP** Suite 4400 One North Wacker Drive Chicago, Illinois 60606 (312) 357-1313

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PROOF OF SERVICE

The undersigned, a non-attorney, certifies, under penalties of perjury pursuant to 735

ILCS 5/1-109, that true copies of the forgoing Notice of Filing and:

- 1. Pre-Filed Testimony of Richard Lanyon;
- 2. Pre-Filed Testimony of William J. Stuba on behalf of the Metropolitan Water Reclamation District of Greater Chicago concerning recreational designations of the Chicago Area Waterway System;
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- 29. Pre-Filed Testimony of Marcelo H. Garcia, Phd; and
- 30. Pre-Filed Testimony of Paul L. Freedman, P.E., BCEE

were served on CD Disc and mailed via U.S. Mail, first class postage prepaid, from One North Wacker Drive, Suite 4400, Chicago, Illinois to All Counsel of Record on the attached Service List, on this 4th day August, 2008.

Jeaninne Roraff

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
WATER QUALITY STANDARDS AND)
CHICAGO AREA WATERWAY SYSTEM) R08-9) (Rulemaking - Water)
AND THE LOWER DES PLAINES RIVER:)
PROPOSED AMENDMENTS TO 35 III.)
Adm. Code Parts 301, 302, 303 and 304)

IN THE MATTER OF

PRE-FILED TESTIMONY OF RICHARD LANYON

My name is Richard Lanyon. I am the General Superintendent of the Metropolitan Water Reclamation District of Greater Chicago (District). I have been the General Superintendent since June 2, 2006 and I am responsible for the day-to-day operations of the District, overseeing the work of 2,000 employees and the administration of our statutory responsibilities and \$1.4 billion budget. Prior to becoming General Superintendent, I was the Director of Research and Development (R&D) for 7 years. My career at the District began in 1963 and I have served in managerial positions in the Engineering and Maintenance and Operations Departments as well as in R&D.

I received Bachelor and Master of Civil Engineering degrees from the University of Illinois at Urbana-Champaign (UIUC). I received the American Society of Civil Engineer's National Government Civil Engineer of the Year Award in 1999 and Distinguished Alumnus of the Department of Civil and Environmental Engineering at the UIUC in 2003. I am also a past President of the Illinois Section of the American Society of Civil Engineers (ASCE) and have been involved in a variety of technical activities for ASCE, the Water Environment Federation, the Illinois Association of Wastewater Agencies, the U.S. Geological Survey and the National Association of Clean Water Agencies. Currently, I serve on the Board of Directors of the National Association of Clean Water Agencies and I am the Chair of the National Biosolids Partnership's Steering Committee and Chair of the Water Environment Federation's Sustainability Community of Practice.

My testimony provides an overview of the Chicago Area Waterway System (CAWS), including its history and physical attributes; its current uses; and past, present and future efforts by the District to improve conditions.

CAWS Overview: History and Physical Attributes

The evolution of the CAWS, through the alteration of its natural rivers and the construction of artificial channels, allowed Chicago to prosper and expand. Construction of the Chicago Sanitary and Ship Canal was completed in 1900, reversing the flow of the Chicago River and South Branch away from Lake Michigan. The river, which historically acted as an open sewer receiving the discharge of sewage from city sewers, flowed directly into Lake Michigan before the Ship Canal was built. During storms, water from the Chicago River would move further into Lake Michigan near the drinking water intakes for the city, threatening outbreaks of waterborne illnesses. During dry weather, it was a source of odors and a public nuisance. The North Shore Channel and Wilmette Pumping Station and control gates were completed in 1910, through which Lake Michigan water was diverted to dilute and flush wastewater downstream through the North Branch of the Chicago River, which was deepened to accommodate the additional flow. The North Shore Channel also conveyed the discharge from sewers in Evanston, formerly draining to Lake Michigan. Upon the completion of the Calumet-Sag Channel and the Blue Island Lock in 1922, the Calumet River was also reversed to flow away from Lake Michigan. Attachments 1, 2 and 3, respectively, provide a current map of the CAWS; a photograph showing construction of one of the channels; and diagram of the flow reversal. Channel construction and modifications to the CAWS established a navigable

connection between the Great Lakes and the Illinois River, making Chicago a commercial center. Today, most of the CAWS is part of the Illinois Waterway, a federal navigation project under the oversight of the U.S. Army Corps of Engineers and the U.S. Coast Guard. Constructing channels also allowed for the drainage of sewage before sewage treatment was employed, and ultimately, for the drainage of treated wastewater. Most significantly, man-made channels facilitated the reversal of the Chicago and Calumet Rivers, away from Lake Michigan, so that Chicagoans could be provided safe and reliable drinking water. At the time, the CAWS was not constructed or altered with recreational or aquatic life uses in mind. While other purposes have evolved over time, it is important to remember that, above all, the CAWS must still support these commercial navigation and urban drainage functions that are so crucial to the public health and commercial success of Chicago.

Currently, the District manages the flow in the CAWS, which consists of 78 miles of canals and serves the Chicago area to drain urban stormwater runoff and treated municipal wastewater effluent, and support commercial navigation. Approximately 57 of the 78 miles of waterways controlled by the District are man-made where no natural river channel previously existed. The other 21 miles have been deepened, straightened, and/or widened to such an extent that they no longer resemble a natural river channel. The flow of water in the CAWS is artificially controlled by hydraulic structures. While flow in the CAWS is managed by the District, it must meet the requirements of a U.S. Supreme Court Decree concerning allowable diversions from Lake Michigan, and federal regulations¹ providing for the maintenance of navigable depths to support commercial navigation.

¹ 33 CFR § 207.420 and 207.425.

The Chicago River Controlling Works was constructed by the District in the late 1930s and was put into operation January 1, 1939 in compliance with the U.S. Supreme Court Decree governing the diversion of Lake Michigan water. This facility is currently maintained and operated by the U.S. Army Corps of Engineers and serves as one of three CAWS lakefront control structures.

The O'Brien Lock and Dam was constructed by the U.S. Army Corps of Engineers in 1960 as part of the Calumet-Sag Channel widening project. This structure replaced the Blue Island Controlling Works located at the east end of the Calumet-Sag Channel. The O'Brien Lock and Dam controls the volume of water diverted from Lake Michigan and the flow in the Calumet-Sag Channel. The flow in the Channel moves downstream into the Ship Canal where the flow is controlled by other lock and dam structures at Lockport. Operation of the control structures can result in wide fluctuations in flow velocity and depth in the Channel. High flows can impair aquatic life uses when habitat is destroyed and aquatic organisms are swept downstream. These fluctuations are not natural; rather they result from the District's operation of the waterway system to provide for navigation, urban drainage and flood damage reduction. During waterway draw downs, in anticipation of storm events, water levels and depth decrease with increased flow in the downstream reaches of the waterway system, whereas, in a natural river, the water level will rise and depth increase with an increase in flow. Further, flow regime variations occur entirely within the restricted rectangular or trapezoidal prism of the various reaches of this man-made channel system. There is no overbank expansion of the waterway with flow increases which would occur in the floodway and floodplain of a natural river.

All outflow exits the CAWS at the Lockport Powerhouse and Lock and Lockport Controlling Works. However, there are several sources of inflow to the CAWS. These include

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treated effluent from water reclamation plants, discretionary diversion from Lake Michigan, water to operate the navigation locks, and leakage through control walls, tributary streams, storm runoff, and combined sewer overflows (CSOs). Over 70 percent of the annual flow in the system is from the discharge of treated municipal wastewater effluent from the Calumet, Lemont, North Side, and Stickney plants owned and operated by the District. During dry weather periods mainly in the winter months, virtually 100 percent of the flow is from these plants and other water reclamation plants on the tributary streams. During wet weather periods and in the summer months when lake diversion is occurring, about 50 percent of the flow is from the water reclamation plants. A comprehensive description of the CAWS's operations, facilities, and individual waterways can be found in Attachment 4.

Features of a natural river, such as gradually sloping banks, varied sediment size, bends, aquatic vegetation, riffles, and a mix of shallows and deep pool areas, are absent in most of the CAWS. The physical characteristics of the CAWS present safety issues that may render activities, such as, swimming, wading, and hand-powered boating hazardous to individuals. The man-made waterways do not have a shallow area along the banks; the depth drops off very rapidly; sediments are soft and unstable, many banks are lined with high walls consisting of vertical sheet piling, concrete, wood or large limestone rocks; periodic draw downs of water levels cause unexpected, rapid increases in stream velocity; and there is frequent barge and large power boat traffic. A rapid draw down of water levels in the CAWS before or during a large storm is a necessary action for draining storm runoff to protect streets and basements in Cook County from flooding. A diagram comparing the characteristics of a natural river versus the CAWS can be found in Attachment 5.

Further impacting the CAWS is the extremely high percentage of impervious surfaces in the watershed area. Aquatic environments, including the CAWS, are negatively impacted by the abundance of impervious surfaces (ground that does not absorb rain water) in their drainage areas, as well as the lack of riparian zone (area immediately surrounding waterway) habitat. Several literature sources suggest that there is a sharp decrease in aquatic habitat quality and a strong correlation to decreased aquatic biodiversity when impervious surfaces cover greater than 10 to 15 percent of the watershed.² Percent watershed imperviousness beyond 30 percent results in "severely degraded conditions for aquatic life in the form of either reduced benthic communities or the absence of fish life."³ The 2001 National Land Cover Dataset, which is presented in Attachment 6, indicates that impervious surfaces cover about 42 percent of Cook County. In a U.S. EPA report, imperviousness was related to the use attainability of streams as follows:

Recently, the imperviousness of the watershed has been suggested as an indicator that is correlated with use attainability. If the frequently cited threshold of 25% impermeability is used, streams in watersheds with greater than this value could be considered unlikely to ever attain a beneficial use regardless of site- and reach-specific factors.⁴

Furthermore, vertical limestone or steel sheet piling walls do not provide shallow habitat along the channel banks where light can penetrate and aquatic plants can grow. This lack of instream cover and protection limits fish spawning, diversity, and abundance, and growth of larval fish. By definition, channels are void of sinuosity (bends) – a property essential for normal

² Booth, Derek and C. Rhett Jackson, 1997. "Urbanization of Aquatic Systems—Degradation Thresholds, Stormwater Detention, and the Limits of Mitigation." *Journal of the American Water Resources Assocation*. 22(5), 1077-1090. Klein, R., 1979. "Urbanization and Stream Quality Impairment." *Journal of the American Water Resources Association* 15(4), 948-963. Schueler, T.R., 1994. "The Importance of Imperviousness." *Watershed Protection Techniques* 1(3), 100-111.

³ Klein, 1979.

⁴ Yoder, Chris O., Robert J. Miltner, and Dale White, 2000. "Using Biological Criteria to Assess and Classify Urban Streams and Develop Improved Landscape Indicators." *Proceedings of the National Conference on Tools for* Urban Water Resource Management and Protection February 7-10, 2000, Chicago, Illinois. EPA/625/R-00/001.

sediment transport and the development of riffle, run, and pool sequences found in natural streams.

CAWS Current Uses

Other factors in the Chicago area, like industrial land use and commercial barge traffic also impact the safety of activities such as wading and small hand-powered boating. Much of the CAWS consists of man-made, deep, trapezoidal-shaped channels that experience heavy barge traffic. Approximately 17,000 barges locked through Lockport Lock and Dam, and over 9,000 barges locked through O'Brien Lock and Dam in 2006.⁵ United States Army Corp of Engineers data indicates that 8,792 barges traveled along the Calumet-Sag Channel in 2006. Attachment 7 presents barge statistics for various waterways. In addition to this barge traffic, there is a high volume of associated commercial offloading throughout the CAWS. Finally, industrial riparian land use is common along the CAWS, which is no surprise for a system designed for the conveyance of treated wastewater effluent and stormwater and commercial navigation.

District's Efforts to Protect and Improve Water Quality in the CAWS Since its Creation

From the 1830s to the latter part of the 19th Century, the rapidly growing City of Chicago was beleaguered with numerous epidemics of waterborne diseases. During that time, the city's mortality rate was among the highest in the world. This contributed to the creation of the District, along with a desire to eliminate the nuisance of the odorous Chicago River and develop a navigation link with the Illinois River. Initially, the main role of the District was to protect Lake Michigan as the primary source of drinking water for the Chicago area. This was accomplished by building the channel from Chicago to Joliet and using Lake Michigan water to dilute the sewage. By the close of the District's canal building era in 1922, sewage treatment was already

⁵ Lockage data is available on USACE website: <u>http://www.iwr.usace.army.mil/ndc/lpms/lock2006web.htm</u>.

underway with the construction of the intercepting sewer system and sewage treatment plants. Construction of the Calumet, North Side and Stickney Water Reclamation Plants was completed in the 1920s through the 1940s. Since the District's inception in 1889, there have been a number of improvements and advancements in the protection of water quality that the District has pioneered and introduced, not the least of which is the construction and operation of its seven water reclamation plants. Consequently, there have been dramatic improvements in the water quality and the public health in the Chicago area. The District's efforts to protect and improve the water quality of the CAWS since its creation are described in Attachment 8.

The District's water reclamation plants are a well-engineered system that combines primary treatment (settleable and floatable solids removal) and secondary treatment (activated sludge and clarification) to achieve a high level of treatment with consistently good performance meeting all NPDES permit limits. Furthermore, degradation and assimilation processes occur in the CAWS which help to reduce the remaining organic constituents in stormwater and treated effluent without harm to fresh water aquatic life. The District's treated wastewater has been demonstrated to have relatively low levels of pathogenic microorganisms. Moreover, the pathogenic microorganisms do not thrive well outside the human body and the freshwater's natural disinfection process is aided by exposure to indigenous bacteria and sunlight.

In addition to management of the reclamation plants, the District is also responsible for completion and operation of the Tunnel and Reservoir Plan (TARP). Construction of the first TARP tunnel began in 1975 and construction of all 109 miles of tunnels was completed in March 2006. One of three reservoirs (the O'Hare Chicago Underflow Plan Reservoir) has been completed and has been in operation since 1998. Construction of the two remaining reservoirs is underway. The Thornton Reservoir is expected to be completed by 2014. Stage 1 of the

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McCook Reservoir is expected to be complete by 2015 and Stage 2 by 2024. TARP has significantly reduced the number of CSOs to the CAWS and backflows to Lake Michigan. As of 2006, TARP cumulatively captured 885 billion gallons of combined sewage that would otherwise have discharged to the CAWS. All captured combined sewage was given complete secondary treatment. Between 2002 through 2006, the District was averaging 43 days per year of CSO discharges, less than half the number experienced prior to the tunnels being placed in operation 1985. It is expected that the completion of the TARP reservoirs will further reduce CSOs to the waterways and lower the accompanying risks. Furthermore, capital improvements for the District's three largest plants, which are nearly 80 years old, and investment for the construction of TARP have to be implemented in the next twenty years to maintain the high quality of the treated wastewater from the region and to protect the drinking water source. These capital improvement investments will cost billions of dollars to implement.

The District's leadership role is described by Blatchely et al (2007) in an article published in *Water Environment Research*:

Leadership within the Metropolitan Water Reclamation District of Greater Chicago has often challenged conventional thinking on topics relating to municipal wastewater treatment; in several cases, the approaches taken by the MWRDGC to solve wastewater treatment and water quality problems have resulted in important innovations that have subsequently been adopted by other municipalities.⁶

In addition, the 2003 report of the Environmental Law & Policy Center attests to the substantial improvement trends in Illinois Water Quality since 1972.⁷ Furthermore, U.S. EPA Region 5

⁶ Blatchley et. al. (2007). "Effects of Wastewater Disinfection on Waterborne Bacteria and Viruses," Water Environment Research, Volume 79, Number 1, pp 81-92.

⁷ Environmental Law & Policy Center. "Illinois Water Quality and the Clean Water Act. A Report of the Environmental Law & Policy Center," October 2003.

published a State of the Waters 2002 Report, which stated that water quality trends indicate a general improvement in Illinois streams and rivers.⁸

While the District's efforts have brought about substantial improvements in water quality, which now largely meets General Use standards, there is a misconception that the waterways have become the equivalent of natural General Use river systems and have the potential to support unlimited recreational and aquatic life uses. However, the physical configuration and properties of the system, which was not designed to support recreation or aquatic life use, are now the primary limitation to further use attainment in the system. The District is proud of what it has accomplished over its 119 year history and is pleased that the CAWS that it created is now viewed as an asset and source of pride for the community. However, we must caution that any serious attempt to assess the use potential of the system must look beyond current, or anticipated future, water quality and must realistically consider the substantial and widespread modifications to the existing physical configuration and properties of the system that would be necessary to actually enable recreational uses to safely flourish or aquatic life uses to significantly improve.

As has been our proud tradition, the District is prepared to take on new challenges to further improve our treatment plant effluent quality and water quality in the CAWS if sound scientific and engineering studies demonstrate feasibility, significant benefit and economic reasonableness. As it currently stands, we do not see that the IEPA's proposal has clearly demonstrated any of these important criteria. In order to assist the IEPA and the Board in completing the UAA study, the District has undertaken numerous landmark studies that will provide a sound basis for evaluating feasibility, benefit, and economic reasonableness. A list of these studies is included as Attachment 9. Some of the studies are complete and will be presented

⁸ U.S. EPA Region 5. "State of the Waters 2002," September 2002.

in testimony to follow. Others are underway and will be completed within the next two years. I am confident that you will understand the significance of these studies and the implications of moving ahead with a rulemaking in the absence of their results as the following testimony is presented.

I thank you for the opportunity to present this testimony and I am hopeful that we will proceed with the best interests of all of the District's constituents in mind.

Respectfully submitted,

RI anyon By: Richard Lanyon

Testimony Attachments

- 1. Current CAWS Map and Photographs of Reaches
- 2. A Photograph showing Construction of one of the Channels
- 3. Chicago River Reversal Diagram
- 4. R&D Report No. 08-15. Description of the Chicago Waterway System for the Use Attainability Analysis.
- 5. Comparison of the CAWS and a Natural River Diagram
- 6. 2001 National Land Cover Data Set Map of Impervious Surfaces in Cook County
- 7. US Army Corp of Engineers Barge Data from 2005
- 8. Timeline of District Improvements on the CAWS
- 9. UAA Timeline

Attachment 1

FIGURE 1: CHICAGO WATERWAY SYSTEM



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Attachment 2



Photograph taken in 1895 during the excavation of the Chicago Sanitary and Ship Canal. Notice the steep vertical walls on the sides of the channel.

Attachment 3







1 2 3 4 5 1 2 3 4 5 North miles

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Attachment 4



Metropolitan Water Reclamation District of Greater Chicago

RESEARCH AND DEVELOPMENT DEPARTMENT

REPORT NO 08-15

DESCRIPTION OF THE CHICAGO WATERWAY SYSTEM

FOR THE USE ATTAINABILITY ANALYSIS

March 2008

DESCRIPTION OF THE CHICAGO WATERWAY SYSTEM

FOR THE USE ATTAINABILITY ANALYSIS

Research and Development Department Louis Kollias, Director

March 2008

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CHICAGO WATERWAY SYSTEM

The Chicago Waterway System (CWS) consists of 78 miles of canals, which serve the Chicago area for two principal purposes, the drainage of urban storm water runoff and treated municipal wastewater effluent, and the support of commercial navigation. While the CWS was not constructed with recreational or aquatic life uses in mind, other purposes have evolved over time including recreational boating, fishing, streamside recreation and, where possible, aquatic habitat for wildlife. Approximately 75 percent of the length are man-made canals where no waterway existed previously and the remainder are natural streams that have been deepened, straightened and/or widened to such an extent that reversion to the natural state is not possible. The flow of water in the CWS is artificially controlled by hydraulic structures (see Figure 1).

Due to the artificial nature of the CWS, its ability to support aquatic life and recreational uses are inherently limited. The absence of gradual sloping banks, shallow littoral zone habitat, and bends result in a limited habitat for aquatic biota. Homogenous silt sediments that severely restrict macroinvertebrate and fish populations are deposited throughout much of the CWS due to the unnatural stream flow dynamics. Some recreational activities can be hazardous in the CWS, due to the extent of commercial traffic, as well as the lack of safe exit points from the water.

System Description

The Lockport Controlling Works (LCW) is one of two outlet control structures for the CWS. All flow from the CWS's 740 square mile watershed discharges from the Chicago Sanitary and Ship Canal (CSSC) to the Des Plaines River north of the city of Joliet. The confluence is 1.1 miles downstream of the Lockport Powerhouse and Lock (LP&L). This reach is the upper end of the Brandon Road navigation pool. The LP&L is the single outlet control for the CWS. It should be noted that on Figure 1, distances on the CWS are measured from the LP&L. The CWS has two river systems, the Calumet River System and the Chicago River System.

The Calumet River System is 23.1 miles in length and includes the Calumet-Sag Channel (CSC) and the Little Calumet River (LCR) (also called the LCR North). The Chicago River System consists of 55.1 miles of waterways and includes the Chicago River, CSSC, North Branch, North Branch Canal (NBC), North Shore Channel (NSC), South Branch, and South Fork. The South Fork is commonly known as Bubbly Creek. Each river system will be described separately.

Chicago River System. The CSSC extends upstream from the confluence with the Des Plaines River for a distance of 31.1 miles to South Damen Avenue in the city of Chicago (Chicago). The waterway then becomes the South Branch, extending upstream for 4.5 miles to the junction of the Chicago River and the North Branch. The South Fork flows into the South Branch and extends upstream for 1.3 miles, ending at 38th Street in Chicago. The Chicago River extends upstream from the junction of the North and South Branches for 1.5 miles and ends at

FIGURE 1: CHICAGO WATERWAY SYSTEM



the Chicago River Controlling Works (CRCW). The North Branch extends upstream from the junction of the Chicago River and South Branch for 7.7 miles to the North Branch Dam, located south of Foster Street in Chicago. The NBC is an alternate route around Goose Island between Chicago and North Avenues and is 1.0 mile long. At the North Branch Dam, the waterway becomes the NSC, extending upstream for 7.7 miles, ending at the Wilmette Pumping Station (WPS).

Calumet River System. The CSC extends upstream from its junction with the CSSC (Sag Junction) for 16.2 miles to the LCR. At this point, the waterway becomes the LCR and extends upstream 6.9 miles, ending at the O'Brien Lock and Dam (OL&D). It should be noted that the Calumet River extends upstream of the OL&D to Lake Michigan. However, since the Calumet River is directly connected to Lake Michigan, it is not considered part of the CWS. The water level and flow in the Calumet River can not be controlled the way that the CWS is controlled.

Tributaries to the Chicago Waterway System. There are several streams that contribute flow to the CWS. These include the Grand Calumet River, LCR above its confluence with the CWS (also called LCR South), the North Branch above the North Branch Dam and numerous small watersheds along the CSC and CSSC. In addition, there are numerous small stormwater drainage inputs along the CWS, including areas served by storm sewers, parking lots, street ends, rooftop drains, etc.

Control and Management of Flow

Flow in the CWS is managed by the Metropolitan Water Reclamation District of Greater Chicago (District), but is subject to regulation under U. S. Supreme Court Decree and 33 CFR Parts 207.420 and 207.425. The CFR provides for the maintenance of navigable depths to support commercial navigation. The Chicago River at the CRCW and the LCR at the OL&D must be maintained between -0.5 feet, Chicago City Datum (CCD) and -2.0 feet, CCD water levels per Code of Federal Regulations during normal conditions. The water level at the Sag Junction must be maintained between -4.0 feet, CCD and -1.8 feet, CCD. The lower limits allow the federal navigation project depths to be maintained throughout the CWS above the LP&L, while the upper limit prevents unintentional reversal into Lake Michigan. The ideal water elevation at CRCW and the OL&D is -2.00 feet, CCD. This water elevation provides the greatest level of flood protection by maintaining the highest allowable capacity available for the transportation of stormwater runoff without requiring permission from the United States Army Corps of Engineers (USACE) to further lower the water elevation. The upper limit of -1.80 feet, CCD and -2.00 feet, CCD at the Sag Junction and the LCW, respectively, are set to prevent washout of the soil banks of the canal at the LP&L.

The U. S. Supreme Court Decree governs the quantity of water from Lake Michigan that is diverted out of the Great Lakes Basin into the Mississippi River Basin by the State of Illinois (Illinois). Within Illinois, this quantity is subject to regulation by the Illinois Department of Natural Resources, Division of Water Resources (DWR). The DWR issues allocation orders for annual average quantities of diversion. Most of the diversion is allocated to municipalities for domestic consumption. The District has an order that allows it to divert water for improvement of water quality and this is referred to as discretionary diversion. Currently and through 2014, the District allocation is for an annual average of 270 cubic feet per second (cfs). In 2015, it is scheduled to be reduced to an annual average of 101 cfs.

An additional annual average of 35 cfs is allocated to the District for navigation makeup. This is necessary to restore the CWS to the required water level for navigation following a system draw down for wet weather operations.

There are two other diversion categories which do not have a specific allocation, but for which the DWR maintains a reserve quantity. An approximate annual average of 100 cfs is the reserve needed for operation of the locks at CRCW and OL&D for passage of navigation traffic.

Another approximate annual average of 50 cfs is reserved for leakage through the walls and structures separating the lake and river. The actual amount of each of these reserves varies with the level of Lake Michigan.

Accounting for the amount of water diverted from Lake Michigan is the responsibility of the DWR and the USACE, Chicago District. The measurement of quantities of diversion and the method of accounting are specified in the U. S. Supreme Court Decree and in a 1996 Memo of Understanding between the U. S. Department of Justice and the several states bordering the Great Lakes.

Inflow and Outflow

All outflow exits the CWS at the LP&L and the LCW. However, there are several sources of inflow to the CWS. These include WRP effluent, discretionary diversion, navigation and leakage, tributaries, storm runoff, and combined sewer overflows (CSO).

Outflow. The average annual flow leaving the CWS in Water Year (WY) 2005 was 2,725 cfs as measured by the U. S. Geological Survey (USGS) at Romeoville Road. Maximum and minimum daily discharge during WY 2005 was 13,973 and 1,287 cfs, respectively. Since 1986, the maximum and minimum WY annual average discharges have been 4,113 and 2,342 cfs, respectively. The maximum instantaneous discharge was 19,500 cfs on February 21, 1997. There are periods of zero and negative discharge due to operations at the LP&L and the hydraulic peculiarities of the CWS.

Water Reclamation Plant Effluent. Over 70 percent of the annual flow in the system is from the discharge of treated municipal wastewater effluent from the Calumet, Lemont, North Side, and Stickney Water Reclamation Plants (WRPs) owned and operated by the District. During the winter months, virtually 100 percent of the flow is from these WRPs; during the summer
months, about 50 percent of the flow is from the WRPs. The WRPs are also shown on <u>Figure 1</u>. During 2006, these WRPs had the following flow characteristics:

WRP	Average Annual Flow (MGD*)	Design Average Flow (MGD*)	Design Maximum Flow (MGD*)			
Calumet	283	354	430			
Lemont	2.31	2.3	4.0			
North Side	244	333	450			
Stickney	729	1,200	1,440			

*MGD=million gallons per day (1 MGD = 1.547 cfs).

Discretionary Diversion. Discretionary diversion is introduced into the system from Lake Michigan to maintain adequate water quality. This occurs at three locations, WPS, CRCW, and OL&D, shown on Figure 1.

Discretionary diversion is seasonal and is scheduled such that most flow is during warm weather months of June through October. Some flow is scheduled throughout the year for the NSC due to more sensitive water quality conditions. Discretionary diversion flows for calendar year 2006 were as follows:

Inflow Facility	Average Annual	M	onthly
	(cfs)	Minimum (cfs)	Maximum (cfs)
WPS	40.4	0	129
CRCW	127.5	0	428
OL&D	83.5	0	303

Navigation and Leakage. This flow consists of discharge to support navigation in the operation of locks and leakage through structures and walls separating the lake and river. There is no navigation traffic at the WPS. It should be noted that navigation flows are seasonal. In addition, the quantity is dependent on the lake level, since flow at CRCW and OL&D is by gravity only. Leakage, formerly a significant quantity at CRCW, has been reduced through repair of gates and construction of new walls. The average annual, monthly maximum, and monthly minimum flows at each of these facilities for calendar year 2006 were as follows:

Facility	 	Navigati	on		Lockage	e	Leakage			
	Average Annual (cfs)	Monthly Max (cfs)	Monthly Min (cfs)	Average Annual (cfs)	Monthly Max (cfs)	Monthly Min (cfs)	Average Annual (cfs)	Monthly Max (cfs)	Monthly Min (cfs)	
WPS	0	0	0	0	0	0	1.3	2.2	0.0	
CRCW	27.4	101	0	13.8	32	1.0	14	19	10.0	
OL&D	8.7	52	0	19.1	43	4.0	8.9	10	7.0	

The average annual discharge for WY 2006 measured by the USGS downstream from CRCW is 155 cfs. Due to a lack of funding, the gauges at the other two intake facilities, OL&D and WPS are no longer active.

Tributaries. The major tributaries to the CWS are the LCR, which has a watershed area of over 210 square miles, and the North Branch Chicago River, with a watershed area of 113 square miles. Other tributaries discharging into the CSC include Crooked Creek, East Stony Creek, Illinois and Michigan Canal, Midlothian Creek, Mill Creek, Navajo Creek, Saganashkee Slough, Tinley Creek, and West Stony Creek. Tributaries discharging into the CSC include the Ellinois and Michigan Canal diversion ditches and Summit-Lyons Conduit. Please refer to the CWS Listing of Facilities, Inflows, and Monitoring Locations (CWS List) located at the end of this report.

Storm Runoff. Numerous storm sewers discharge to the CWS from several municipalities and Illinois Department of Transportation drainage facilities. A complete inventory of these facilities is not available.

Combined Sewer Overflow. The combined sewer area within the District serves a collection area of approximately 375 square miles, which includes most of the city of Chicago. There are 177 National Pollutant Discharge Elimination System (NPDES) permitted CSOs that discharge to the CWS from about 40 municipalities and the District. The District has a comprehensive CSO outfall inventory available at <u>www.mwrd.org</u>.

Major Pumping Stations. The CSO outfalls include five major pumping stations (PS) which serve a collection area of about 54.8 square miles. These stations include the Racine Avenue PS, which discharges into the South Fork of the South Branch of the Chicago River (also known as Bubbly Creek); the 95th Street PS, which discharges into the Calumet River; the 122nd Street PS, which discharges into the Calumet River; the 125th Street PS, which discharges into the Calumet River; the 121nd the Little Calumet River, and the North Branch PS which discharges into the North Branch of the Chicago River. The pumping capacities of these major pumping stations to the CWS during storm events are detailed below:

Pumping Station	Pumping Capacity to the CWS During Storm Events (cfs)
North Branch PS	1,500
Racine Avenue PS	3,125
95 th Street PS	855
122 nd Street PS	375
125 th Street PS	1,140

PHYSICAL DESCRIPTION OF THE WATERWAYS

Chicago River System

North Shore Channel. (Photograph 1) This man-made channel is 7.7 miles in length and is straight throughout except for four bends in alignment near Devon and Central Avenues and Emerson and Linden Streets. It has steep earthen side slopes and a width of 90 feet. The depth varies from 5 to 10 feet. The NSC was completed in 1910 in order to divert water from Lake Michigan to dilute and flush wastewater downstream through the North Branch Chicago River. It also served as a conveyance for wastewater from communities north of Chicago.

Land use along the NSC is generally urban commercial and residential. In-stream aquatic habitat is often present along the partly shaded banks, in the form of aquatic plants, tree roots, and brush debris jams. Presently, there are often stagnant flow conditions in the NSC above the North Side WRP discharge. In the northernmost reaches of the NSC, near Central Avenue, a variety of sediment types are present and the depth of fines is generally one foot or less. Just upstream of the North Side WRP, at Oakton Avenue, silt makes up the majority of sediment composition, with deeper depth of fines than the upstream reaches (2-4 feet). In the reach directly downstream of the North Side WRP, near Touhy Avenue, a majority of the sediment is comprised of sand. Depth of fines range from under a foot up to 5 feet. Near Foster Avenue, approaching the confluence with the North Branch Chicago River, sediment is mixed and depth of fines is less than a foot.



Photograph 1: Aerial view of the North Shore Channel with Howard Street Bridge in the foreground.

North Branch Chicago River. (Photograph 2) From the junction of the Chicago River and the South Branch upstream to Belmont Avenue, a distance of 5.1 miles, the river follows its original course and has several bends. The North Branch is a natural portion of the CWS that was historically straightened, widened, and dredged to accommodate increased volume of diluted wastewater from the man-made NSC. The width varies from 150 to 300 feet and the depth varies from 10 to 15 feet. In several reaches, vertical dock walls have been constructed and are in various states of disrepair. From Belmont Avenue to the North Branch Dam, 2.6 miles, the channel has been either straightened or relocated into fairly straight segments with steep earthen side slopes. The width is generally 90 feet and the depth is approximately 10 feet in the center part of the channel.

Today, the northern deep-draft portion of the North Branch Chicago River by Wilson Avenue has mostly urban residential land use and contains in-stream habitat with logs, boulders, and an under-cut bank. In these upstream reaches, sediment is comprised mostly of cobble and sand, with fine sediments usually less than a foot deep. Further downstream, near Diversey Avenue, land use changes to mostly commercial/industrial, and there is decreased canopy cover. Sediment consists mostly of silt with scoured concrete in some areas, and depth of fines ranges from approximately 1-3 feet. There is limited in-stream habitat near the banks, including debris jams, boulders and tree roots. As the North Branch approaches downtown Chicago, physical habitat is further degraded. Near Grand Avenue, land use is primarily industrial/commercial, with periodic vertical sheet pile walls and concrete "banks." There is a lack of in-stream habitat and little canopy cover. Sediment is comprised primarily of silt with depth of fines ranging from 1 to greater than 5 feet.



Photograph 2: North Branch Chicago River, west from Halsted Street Bridge.

North Branch Canal. (<u>Photograph 3</u>) This canal was man-made in the 1870s. It forms the east side of Goose Island, has a straight alignment and is one mile in length. The width varies from 80 to 120 feet and the depth from 4 to 8 feet.



Photograph 3: North Branch Canal, northwest from Halsted Street Bridge.

Chicago River. (Photograph 4) The Chicago River, 1.5 miles in length, is 200 feet wide west of Michigan Avenue and wider, up to 400 feet wide, east thereof. It has vertical side walls throughout its length. It is 20 feet deep at the west end and 26 feet deep at the east end. The river alignment is generally straight with three bends near Michigan Avenue and State and Orleans Streets. The Chicago River historically flowed into Lake Michigan, but was reversed by the construction of the CSSC, and the mouth of the river was altered where it met Lake Michigan. Its entire length was also dredged, widened, and straightened so that shipping vessels could travel through it in the 1800s and to facilitate urban development of the downtown area.

Currently, the Chicago River contains extreme physical limitations to recreation and aquatic habitat, as it flows right through downtown Chicago and contains steep vertical sheet piling walls. There are no shallow areas and there is very little to no canopy cover. Fine grained silt sediments predominate. Because of the temperature and salinity differential between the warmer, more saline water from the NBCR and the colder, less saline water of Lake Michigan, density currents are sometimes established in the Chicago River. These density currents can result in simultaneous bi-directional flow in the Chicago River. In addition, the gradient of the bed is very small, making it difficult to push the water out of the Chicago River.



Photograph 4: The Chicago River, looking east. Wells Street Bridge in foreground.

South Branch Chicago River. (<u>Photograph 5</u>) This 4.5 mile long segment generally follows its original course and has several bends, though it was somewhat straightened and channelized between 1928–1929 for the convenience of navigation. A short reach between Roosevelt Road and 18th Street was relocated in 1928 to eliminate a major bend. The South Branch has vertical dock walls throughout most of its length. The width varies from 200 to 250 feet and the depth from 15 to 20 feet.

Today, there is very little in-stream habitat or canopy cover along the South Branch and urban industrial and commercial land uses predominate. Near Madison Street in downtown Chicago, the sediment is almost entirely made up of silt, with about one foot depth of fines. Downstream at Loomis Street, the side channels are mostly scoured bedrock with silt and sludge deposits in the center. Depth of fines range from 3-5 feet in these center sediments.



<u>Photograph 5</u>: Northeastern aerial view of the South Branch Chicago River. Loomis Street Bridge in the foreground. **South Fork South Branch Chicago River.** (Photograph 6) This segment is 1.3 miles in length, varies from 100 to 200 feet in width, and from 3 to 13 feet in depth. Steep earthen or riprap banks predominate along the South Fork, with vertical sheet piling walls along several reaches. The South Fork is infamous for receiving offal waste from the Union Stock Yards beginning in the late 1800s. Gases generated by decaying waste from the slaughterhouse and rendering operations would bubble up to the surface, prompting the South Fork South Branch Chicago River to be nicknamed Bubbly Creek. The Stickney WRP was completed in 1942, so the waterways no longer functioned as open sewers. However, decomposition of organic matter in the sediment still results in bubbling gases escaping to the surface of Bubbly Creek. Stagnant flow conditions are common in Bubbly Creek unless there is discharge from the Racine Avenue Pumping Station (RAPS). Hazardous flow conditions can be present during and following significant rain events due to RAPS.

Urban industrial and commercial land uses are most common, although residential areas have been recently established along the northern reach of Bubbly Creek. Logs and brush debris jams are present as in-stream cover along much of the creek. The sediment is characterized mostly by sludge and silt deposits, with depth of fines down to 5 feet.



Photograph 6: South Fork South Branch Chicago River, aka. Bubbly Creek, north from 35th Street Bridge.

Chicago Sanitary and Ship Canal. (Photograph 7) This 31.1 mile long man-made channel has many different shapes and sizes. Its alignment is straight throughout its length, except for four bends, near Harlem Avenue, La Grange and Romeoville Roads, and in Lockport. Downstream of the LP&L, a reach of 1.1 miles, the depth is 10 feet and the width is 200 feet. Upstream of the LP&L, the depth varies from 20 to 27 feet. The reach immediately upstream of the LP&L, 2.4 miles in length, varies in width from 160 to 300 feet. The east bank of this reach is a vertical concrete wall. The west bank varies from vertical dock wall to a steep rockfill embankment. The next 14.6 miles of the CSSC have vertical concrete or rock walls 160 feet apart. The last 13.0 miles have a trapezoidal shape, 220 feet wide, with steep earth or rock side slopes. There are several areas with vertical dock walls in this last reach.

Excavation of the CSSC from the South Branch Chicago River to Lockport was completed in 1900. Its construction facilitated the reversal of the Chicago River such that Chicago's wastewater no longer flowed into Lake Michigan. Industrial and commercial land use dominates the riparian zone along most of the CSSC. There is little to no canopy cover and in-stream habitat for aquatic life is limited to snags and debris accumulated near bridge abutments. Silt and sludge comprises a majority of the sediment at Damen Avenue, with depth of fines ranging from <1-9 feet. At Cicero Avenue, deposited sediments are comprised of mostly silt and sludge, with <1-4 feet depth of fines. Sediment was slightly more variable at Harlem Avenue, where silt predominated, but there was also sand, gravel, cobble, and boulders near the bridge. The bedrock was exposed due to scouring near Route 83 and Stephen Street, with some scattered silt deposits. Areas of scouring, as well as pockets of deep silty sediments also occur near Lockport, although habitat improves slightly near the sunken barges on the west bank. Aquatic vegetation and snags are present in this shallow area with deep sand and silt deposits.



<u>Photograph 7</u>: Aerial view of the Chicago Sanitary and Ship Canal, upstream of Calumet-Sag junction, near McCook Reservoir (under construction).

Calumet River System

Little Calumet River. (<u>Photograph 8</u>) The LCR, 6.9 miles in length, has been deepened and widened from its original natural condition. There are several changes in alignment, with one full 180-degree bend west of Indiana Avenue. Its width varies from 250 to 350 feet and its depth is generally 12 feet in the center part of the channel. It has few vertical dock walls and most of the banks are earthen side slopes.

In-stream habitat for aquatic life is generally available along the LCR in the form of boulders, logs, brush debris jams, overhanging terrestrial vegetation, and aquatic vegetation in some reaches. Riparian land use along the LCR upstream of the Calumet WRP outfall, near Indiana Avenue, is generally urban industrial and commercial. The sediments in this reach are mostly characterized by sludge and silt deposits, but there are also gravel substrates in the center of the river. Depth of fines range from <1 to 7 feet. Downstream of the WRP, at Halsted Street, land use varies from urban commercial to forest and wetland. Sediments are relatively heterogeneous, although the substrate is sometimes scoured in the center, with exposed bedrock. Thus, depth of fines range from 0 to approximately 3 feet in these areas.



Photograph 8: Little Calumet River, looking east from underneath Halsted Street Bridge.

Calumet-Sag Channel. (Photograph 9) A man-made channel, completed in 1922 to reverse the flow of the Calumet River, the CSC is 16.2 miles long with a generally trapezoidal shape, 225 feet wide and approximately 10 feet deep. In some sections, the north bank is a vertical wall. The alignment is generally straight with three bends near Western, Crawford, and Ridgeland Avenues, and thus there is no riffle, run, or pool development. The channel was excavated through limestone and bedrock, so current conditions constitute mostly silt and sludge deposited on a hard consolidated substrate. Near its eastern terminus, sediments from Ashland Avenue are mostly silt with depth of fines from 1-2 feet. Logjams and boulders are found on the bank, and there is no aquatic vegetation other than attached green algae. In its mid-section, sediment at Cicero Avenue is mostly comprised of sludge and silt, with depths of fines ranging from 3-9 feet. There is an open canopy with logs and boulders on the side bank.

Upstream of Southwest Highway, land use is generally urban industrial, however, near its western terminus, shortly upstream of the confluence with the CSSC, land is leased to and managed by the Forest Preserve District of Cook County. Substrate at Route 83 is mostly comprised of silt and sludge, with a depth of fines of 1-7 feet. In this reach, some parts of the south bank have boulders and small rock ledge, while the north bank is vertical limestone wall.



Photograph 9: The Calumet-Sag Channel, east from 104th Street Bridge.

Use Classification

General Use Waters. This use classification has been designated by the Illinois Pollution Control Board (IPCB) for the 1.6 mile length of the Chicago River and the 4.0 mile reach of the NSC from the North Side WRP outfall to the WPS. The General Use standards are found at 35 Illinois Administrative Code (IAC) Section 202.200 and are established to protect aquatic life, wildlife, body-contact recreation (swimming), water supply, and Secondary Contact uses.

Secondary Contact Waters. All other portions of the CWS have been designated by the IPCB for this use classification. The Secondary Contact standards are found at 35 IAC Section 302.400 and are established to protect indigenous species, non-contact recreation (boating), and commercial navigation.

Facility Descriptions

Chicago River Controlling Works. The CRCW controls the flow of water between the lake and Chicago River. This facility was built by the District in 1938 and was maintained and operated by them until 1984. In this year, the maintenance and operation responsibilities were transferred to the USACE. It consists of walls separating the river and the lake, a navigation lock, two sets of sluice gates, and a pumping station. The lock is 80 feet wide by 600 feet long, with a normal lift of 2.0 feet in size. The two sets of underwater sluice gates consist of four gates each, each gate being 10- by 10-feet in size. The sluice gates allow gravity flow from Lake Michigan to the Chicago River when the lake level is higher than the Chicago River. The pumping station has three pumps of 30 cfs each. The pumps can only discharge from the river to the lake and were installed in 2000 for the purpose of returning excess leakage and lockage water to the lake. The pumps have yet to be used for this purpose.

Lockport Controlling Works. The LCW is owned and operated by the District. It is an auxiliary facility used during storm operations to discharge flood waters to the Des Plaines River. It is located two miles upstream of the LP&L and is used when discharge above the capacity of the LP&L is needed. It has seven sluice gates, each being 30 feet wide and 20 feet high. The gate sill is at elevation -15.0 feet, CCD.

Lockport Powerhouse and Lock. The powerhouse is owned and operated by the District. It was built in 1907 and is currently licensed for two hydroelectric generating units with a total capacity of 13,500 kilowatts, nine submerged sluice gates for the discharge of storm water and one surface sluice gate for flushing debris. The lock is owned and operated by the USACE and was built in 1933. It is 110 feet wide and 600 feet long with a normal lift of 37 feet. Newly licensed generating units have a combined capacity of 5,000 cfs. Each submerged sluice gate is capable of a maximum discharge of 2,500 cfs. A fill or empty event for the lock during normal water levels causes a discharge of 2,000 cfs over a 20-minute period. During storm operations, the discharge capacity through the facility is increased to facilitate the drainage of stormwater. This lowers the upstream water level and increases water velocities in the channel.

O'Brien Lock and Dam. This facility was built in 1960 and is owned and operated by the USACE. The lock is 110 feet wide and 1,000 feet long with a normal lift of 2.0 feet. Flow regulation from Lake Michigan to the Calumet River is accomplished with four submerged sluice gates, each 10- by 10-feet in size. The gate opening for flow regulation is under the direction of the District and the actual operation is performed by the USACE.

Wilmette Pumping Station. The WPS is located beneath, and is integral with, the Sheridan Road Bridge and controls the flow of water between Lake Michigan and the NSC. It was built in 1910 and is owned and operated by the District. Lake water is brought into the channel for augmenting low flows for water quality maintenance. The station has four horizontal screw pumps rated at 250 cfs at a lift of 3.0 feet. The pump propellers are 9.0 feet in diameter and located in tunnels that run under the floor of the station from the Wilmette Harbor to the channel. Pumping is necessary when lake levels are low.

Adjacent to the south side of the pumping station is a concrete channel and sluice gate to allow for the passage of water by gravity when pumping is not necessary (when the lake level is higher than the level in the NSC). The channel is 30 feet wide and 11 feet deep. During storm operations, when the channel surcharges and the water level nears 5.0 feet, CCD, the sluice gate can be opened to relieve the channel to the lake.

Five temporary pumps with an aggregate capacity of 50 cfs were installed in 2000 due to non-operation of the large original pumps. In 2002, one of the original pumps was rehabilitated for use since the five temporary pumps have insufficient capacity for water quality maintenance.

Instream and Sidestream Elevated Pool Aeration Stations. Instream aeration stations are located on the North Shore Channel at Devon Avenue and on the North Branch Chicago River at Webster Avenue. The Devon and Webster Avenue stations have been in service since 1979 and 1980, respectively. These facilities are operated as needed by the District to maintain dissolved oxygen in the northern Chicago River System.

The sidestream elevated pool aeration (SEPA) stations are owned and operated by the District. There are three SEPA stations on the CSC, and one each on the Little Calumet and Calumet Rivers. Water from the channel is lifted 12- to 15-feet and allowed to drop over a series of weirs to create a waterfall and add oxygen to the waterway. SEPA stations have been operating since 1994 to help overcome dissolved oxygen sags in the Calumet River System. These stations are not operated in the winter months.

Operation Plan

Dry Weather Conditions. Dry weather conditions are typically characterized by flat water levels, below average flows from the WRPs, normal intake from the lake, and a flow of approximately 1,800 cfs through the LP&L. Normal dry weather discharge is released from the CWS through hydroelectric generating units and the navigation lock at the LP&L. The water level in the Chicago River at the CRCW and in the LCR at the OL&D is ideally maintained at - 2.0 feet, CCD. Discretionary diversion is brought into the CWS at the CRCW, OL&D, and WPS per the planned schedule.

Wet Weather Conditions. When weather forecasts indicate that rainfall is likely to occur, the CWS is readied for wet weather operations. Discretionary diversion, if in progress, is curtailed and discharge at the LP&L is increased. This lowers the water level in the lower reaches of the CWS to provide storage for incoming storm flow and increases the hydraulic gradient to move more water through and out of the CWS. If no or very light rainfall occurs, the operations are returned to the dry weather mode. Light rainfall, less than 0.33 inches, normally causes little disruption in operations.

If rainfall is moderate, 0.33 to 0.67 inches, most CSOs are initially captured by the Tunnel and Reservoir Plan (TARP) and only reach the CWS through increased discharge from the WRPs. However, direct inflow of other storm runoff does occur under these conditions. Additional discharge at the LP&L is achieved by increasing the discharge through the LP&L's two generating units to their maximum capacity. Discharge necessary beyond the maximum discharge of the generating units (5,000 cfs) is put thorough sluice pit gates at the LP&L and, if necessary, the LCW. Water levels in the upper part of the CWS will rise due to storm inflow and increased WRP discharge. After the peak water level is reached, the water levels begin to subside. Discharge at the LP&L is gradually reduced by closing gates as the CWS returns to dry weather conditions. When -2.0 feet, CCD, is reached at the CRCW and/or OL&D, discretionary diversion is resumed, if appropriate.

If rainfall is heavy, 0.67 to 1.5 inches, TARP will fill and excess CSOs will be discharged to the CWS from pumping stations and CSO outfalls. Other storm runoff from tributary watersheds and storm sewers is significant and imposes an additional hydraulic load on the CWS. The operation of the CWS will be similar to the above description, with the exception that increased discharges at the LP&L are initiated more rapidly.

Excessive rainfall, 1.5 inches or greater, especially if preceded by antecedent rainfall, will likely cause extreme water levels in the upper part of the CWS. If water levels reach 3.5 feet, CCD, at the CRCW and the OL&D and are rising, it will be necessary to relieve the CWS by discharging excess flood water to Lake Michigan at those points. If the water level at WPS reaches 4.5 to 5.0 feet, CCD, it is necessary to relieve the CWS at the WPS. The decision to provide for such relief at each facility is made based on the potential for continued area rainfall and on the water level conditions at each facility.

Measurement of Discharge and Water Level

United States Geological Survey. The USGS maintains discharge measurement stations at several locations in the CWS and its tributaries. These are summarized in the following table. Water level is also available at these locations.

River	Location	Number			
Chicago River	Columbus Drive	05536123			
Chicago Sanitary & Ship Canal	Romeoville Road	05536995			
Grand Calumet River (T)	Hohman Avenue	05536357 (Indiana)			
Little Calumet River	O'Brien Lock & Dam	05536357			
Little Calumet River (T)	Cottage Grove Avenue	05536290			
Midlothian Creek (T)	Kilbourn Avenue	05536340			
North Branch (T)	Albany Avenue	05536105			
North Shore Channel	Maple Street	05536101			
Tinley Creek (T)	135 th Street	05536500			

All locations in Illinois, except as indicated. Tributary streams are designated (T).

Metropolitan Water Reclamation District of Greater Chicago. The District maintains a network of rain gauges in the watershed and nine water level measurement stations on the CWS. See the <u>CWS List</u> for water level measurement locations.

Monitoring of Water Quality

Illinois Environmental Protection Agency. IEPA operates an Ambient Water Quality Monitoring (AWQM) Program throughout Illinois with over 200 monitoring locations. Two of these are located on the CWS, on the CSC at Route 83 and the CSSC at Lockport.

Metropolitan Water Reclamation District of Greater Chicago. The District also operates an AWQM Program and has 20 locations on the CWS. In addition, District performs monitoring for biological conditions, physical habitat, and sediment quality at all these locations. At some locations, the monitoring is performed annually and at other, once in four years. In addition, there are 30 locations in the CWS where dissolved oxygen and temperature are measured hourly with continuous in-situ monitors. See the <u>CWS List</u>.

United States Environmental Protection Agency. USEPA performs no regular monitoring, but has conducted surveys of sediment quality for some reaches of the CWS.

United States Army Corps of Engineers. USACE performs no regular monitoring, but has conducted surveys of sediment quality for some reaches of the CWS.

ACRYONYM LIST

AWQM	Ambient Water Quality Monitoring
CCD	Chicago City Datum
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CRCW	Chicago River Controlling Works
CSC	Calumet-Sag Channel
CSO	Combined sewer overflow
CSSC	Chicago Sanitary and Ship Canal
CWS	Chicago Waterway System
District	Metropolitan Water Reclamation District of Greater Chicago
DWR	Illinois Department of Natural Resources, Division of Water Resources
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
IPCB	Illinois Pollution Control Board
LCR	Little Calumet River
LCW	Lockport Controlling Works
LP&L	Lockport Powerhouse and Lock
MGD	Million Gallons per Day
NBC	North Branch Canal
NPDES	National Pollutant Discharge Elimination System
NSC	North Shore Channel
OL&D	O'Brien Lock and Dam
RAPS	Racine Avenue Pumping Station
SEPA	Sidestream Elevated Pool Aeration
TARP	Tunnel and Reservoir Plan
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WPS	Wilmette Pumping Station
WRP	Water Reclamation Plant
WY	Water Year (October 1 through September 30)

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Location	USGS River Mile	Distance U/S of Lockport	Comments			
CHICAGO SANITARY & SHIP CANAL						
Des Plaines River Confluence	290.1	-1.1				
Lockport Powerhouse & Lock	291.1	0.0	Flow District WL, WQ, DO			
Lockport Controlling Works	293.2	2.1	District WL			
Will County Power Plant, Cooling Water	296.0	4.9	OU, IN			
Romeoville Road	296.2	5.1	USGS DM			
Citgo Petroleum Corporation	298.0	6.9				
Stephens Street	300.5	9.4	District WQ			
Lemont Water Reclamation Plant	300.6	9.5	IN			
Argonne Laboratory	302.3	11.2	USGS, DM, OU, IN			
Illinois and Michigan Canal Connector Ditch	303.0	11.9	IN			
Sag Junction	303.4	12.3	Confluence			
Highway 83	304.1	13.0	District WQ, DO			
Baltimore & Ohio Railroad	312.3	21.2	District DO			
Summit-Lyons Conduit Inflow	313.3	22.2	IN			
Harlem Avenue	314.0	22.9	District WQ			
Stickney Water Reclamation Plant	315.5	24.4	IN			
Cicero Avenue	317.3	26.2	District WQ, DO			
Crawford Power Plant, Cooling Water	318.5	27.4	OU, IN			
Western Avenue	320.6	29.5	District WL			
SOUTH BRANCH						
Damen Avenue	321.1	30.0				
South Fork	321.7	30.6	Confluence			
Loomis Street	321.9	30.8	District DO, WQ			
Fisk Power Plant, Cooling Water	322.0	30.9	OU, IN			
Jackson Boulevard	325.0	33.9				
Madison Street	325.3	34.2	District WQ			
North Branch & Chicago River Junction	325.6	34.5	Confluence			
SOUTH FORK						
Interstate Route 55	321.9	30.8	District DO, WO			
36 th Street	322.5	31.4	District DO			
Racine Avenue Pumping Station	322.8	31.7	CSO			
NORTH BRANCH	225.0	04.7	DIVINDO			
Kinzie Street	325.8	34.7	District DO			
Grand Avenue	326.0	34.9	District WQ			
Division Street	327.3	36.2	District			
Webster Avenue Instream Aeration Station	238.9	37.8	SA District DO			
Function Avenue	329,4 220 1	38.3 20.0	District DO			
Diversey Parkway	221.2	39.U 40 0	District WQ District DO			
Wilson Avenue	331.3 222 6	40.2 11 5	District DO			
	2220 2220 0	41.J /1 Q	District WQ			
Lawithte Avenue North Branch Pump Station	222 I	41.8				
North Branch Dam	333.1	42.0 12 0	COO Tributary IN			
Avera Dianen Dani		72.2				

CHICAGO WATERWAY SYSTEM LISTING OF FACILITY INFLOW AND MONITORING LOCATIONS

Location	USGS River Mile	Distance U/S of Lockport	Comments			
NORTH SHORE CHANNEL						
Foster Avenue	333.5	42.4	District WO, DO			
Devon Avenue Instream Aeration Station	335.0	43.9	SA			
Devon Avenue	335.0	43.9	District			
Touhy Avenue	336.0	44.9	District WQ			
North Side Water Reclamation Plant	336.9	45.8	IN			
Oakton Street	337.0	45.9	District WQ			
Main Street	337.5	46.4	District DO			
Simpson Street	339.5	48.4				
Central Street	340.2	49.1	District WQ			
Maple Avenue	340.6	49.5	USGS DM			
Linden Street	340.8	49.7				
Sheridan Road (Wilmette Pumping Station)	341.0	49.9	District WL, IN			
CHICAGO RIVER						
North and South Branch Junction	325.6	34.5				
Wells Street	325.8	34.7	District WQ			
Clark Street	325.9	34.8	District DO			
Michigan Avenue	326.4	35.3				
Columbus Drive	326.6	35.5	USGS DM, WL			
Lake Shore Drive	326.9	35.8	District WQ			
Chicago River Controlling Works	327.1	36.0	District WL			
SOUTH FORK						
South Branch Junction	321.7	30.6	Confluence			
Archer Avenue	322.1	31.0	District DO, WQ			
Racine Avenue Pumping Station	323.0	31.9	CSO			
CALUMET-SAG CHANNEL						
Sag Junction	303.4	12.3	Confluence			
SEPA Station No. 5 at Junction	303.4	12.3	SA			
Illinois and Michigan Canal	303.7	12.6	IN			
Highway 83	304.3	13.2	District WQ, DO			
104 th Street	307.5	16.4	District DO			
Crooked Creek	308.1	17.0	IN			
Mill Creek	309.0	17.9	IN			
Stony Creek (West)	309.4	18.3	IN			
Southwest Highway	310.7	19.6	District WL			
SEPA Station No. 4	311.7	20.6	SA			
Harlem Avenue	311.7	20.6				
Navajo Creek	312.6	21.5	IN			
Tinley Creek	314.1	23.0	IN			
Cicero Avenue	315.0	23.9	District WQ, DO			
Midlothian Creek	317.1	26.0	IN			
Kedzie Avenue	317.1	26.0				
Stony Creek (East)	317.9	26.8	IN			

CHICAGO WATERWAY SYSTEM LISTING OF FACILITY INFLOW AND MONITORING LOCATIONS (Continued)

CHICAGO WATERWAY SYSTEM LISTING OF FACILITY INFLOW AND MONITORING LOCATIONS (Continued)

Location	USGS River Mile	Distance U/S of Lockport	Comments			
SEPA Station No. 3	318.0	26.9	SA			
Division Street	318.0	27.5				
Ashland Avenue	319.1	28.0	District WQ			
Little Calumet River Junction	319.6	28.5	Tributary IN			
Little Calumet River			2			
Halsted Street	320.1	29.0	District WQ, DO			
SEPA Station No. 2	321.3	30.2	SA			
Calumet Water Reclamation Plant	321.4	30.3	IN			
125 th Street Pump Station	321.4	30.3	CSO			
Indiana Avenue	322.4	31.3	District WQ			
C & WI Railroad	322.6	31.5	District WQ			
Conrail Railroad	325.4	34.3	-			
Grand Calumet River	325.7	34.6	IN			
O'Brien Lock and Dam	326.5	35.4	USGS DM District WL			

WL=water level measurement.

WQ=water quality sampling location.

DM=discharge measurement location.

OU=outflow.

IN=inflow.

CSO=combined sewer overflow pumped inflow during storms. DO=continuous dissolved oxygen monitoring location.

SA=supplemental aeration.

District=Metropolitan Water Reclamation District of Greater Chicago.

USGS=United States Geological Survey.

Attachment 5

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Comparison of the Chicago Area Waterway System (CAWS) and a Natural Riv

TYPICAL CHICAGO AREA WATERWAY

Deep Draft

The CAWS was constructed specifically to facilitate urban drainage and commercial barge traffic. The steep sides allow for maximum volume capacity and barge navigation, but provide little habitat for fish.

Lack of Shade

The CAWS receives little shade from trees relative to the overall channel widths, especially in areas of urban or industrial land-use. These conditions encourage algae growth and discourage fish colonization.

Channelized Waterways

Most of the CAWS was constructed or modified to be straight with little variation in width and depth. It was designed specifically for wastewater conveyance and commercial navigation, without accounting for any aquatic life or recreational uses. There is no riffle or pool development.



Controlled Flow

Hydrologic control structures (locks, dams, etc.) adjust water levels in the CAWS based on anticipated rain events to protect public health and prevent floodin of homes and businesses. Most of the time, flow in the CAWS is much slower than that of a natura river of comparable size. During rain events, however, rapid draw-down in water levels can lead to unsafe flow conditions.



Sinuous Path

A natural river meanders around curves and has varying depths, widths, and flow velocities. This variety functions to support a diverse assemblage of fish and invertebrates. Riffles increase the amount of oxygen in the water.

Impaired Sediments Homogenous silty sediments dominate the CAWS. These fine-grain sediments are not conducive to healthy invertebrate or fish communities, and are generally more likely to be associated with organic and heavy metal contaminates.

Barge Traffic

Commercial barges are prevalent in much of the CAWS. In 2006, over 12 million tons of commercial goods were shipped up through Lockport Lock into the Chicago Sanitary and Ship Canal on barges.

TYPICAL NATURAL RIVER

Gradually Sloping Banks

Natural banks allow light to penetrate to aquatic plants. They also offer a safer exit pathway for recreators.

Canopy Cover

Trees provide shade for aquatic life, keep the temperature down, and limit algae growth.

Varied Sediment Size Heterogeneous sediment particles: are able to support a diverse variety of aquatic invertebrates. Coarse sediments are more stable and not usually associated with chemical contamination. Rocks and Aquatic Vegetation In-stream habitat provides shelter and spawning area for fish, along with substrate for aquatic insects.

Attachment 6



Low : 0

Imperviousness from 2001 National Land Cover Dataset

Attachment 7

WATERBORNE COMMERCE OF THE UNITED STATES

Calendar Year 2006

Part 3– Waterways and Harbors Great Lakes



Compiled under the supervision of the Insitute for Water Resources U.S. Army Corps of Engineers Alexandria, Virginia

IWR-WCUS-06-3



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Introduction

General

Waterborne Commerce of the United States, WCUS, Part 3 is one of a series of publications which provides statistics on the foreign and domestic waterborne commerce moved on the United States waters. WCUS, Parts 1-4 present detailed data on the movements of vessels and commodities at the ports and harbors and on the waterways and canals of the United States, and its territories.

Data on foreign commerce are supplied to the Corps of Engineers by the U.S. Bureau of the Census, the U.S. Customs and Border Protection, and purchased from the Commonwealth Business Media, Inc., Port Import Export Reporting Service.

The publication numbers and the geographical areas covered in WCUS, Parts 1-5 are detailed below:

WCUS, Part 1 Atlantic Coast WCUS, Part 2 Gulf Coast, Mississippi River System and Antilles WCUS, Part 3 Great Lakes WCUS, Part 4 Pacific Coast, Alaska and Hawaii WCUS, Part 5 National Summaries

Legal Authority

The legal authority for the collection, compilation and publication of waterborne commerce statistics by the Army Corps of Engineers is Section 11 of the Rivers and Harbors Appropriations Act of 1922 (42 Stat. 1043), as amended, and codified In 33 U.S.C. 555 and provides the following:

> Owners, agents, masters, and clerks of vessels and other craft plying upon the navigable waters of the United States, and all individuals and corporations engaged in transporting their own goods upon the navigable waters of the United States, shall furnish such statements relative to vessels, passengers,

freight and tonnage as may be required by the Secretary of the Army: <u>Provided</u>. That this provision shall not apply to those rafting logs, except upon a direct request upon the owner to furnish specific information.

Every person or persons offending against the provisions of this section shall, for each and every offense, be liable to a fine of not more than \$5,000 or imprisonment not exceeding two months, to be enforced in any district court of the United States within whose territorial iurisdiction such offense may have been committed. In addition, the Secretary may assess a civil penalty of up to \$2,500 per violation against any person or entity, that fails to provide timely. accurate statements required to be submitted pursuant to this section by the Secretary.

The vessel and commodity movement information collected and compiled is designed to meet the data requirements of the Department of the Army in connection with the duties assigned by Congress. These data also provide valuable information for other governmental departments, commercial and shipping concerns and others interested in the U.S. transportation industry.

Domestic Commerce

Contiguous and non-contiguous states and territories constitute the geographical space upon which domestic commerce may be transported. This includes Hawaii, Alaska, the 48 contiguous states, Puerto Rico and the Virgin Islands, Guam, American Samoa, Wake Island and the U.S. Trust Territories.

The waterborne traffic movements are reported to the Corps of Engineers by all vessel

operators of record on ENG Forms 3925 and 3925b (or equivalent) approved by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3510(a)). The reports are generally submitted on the basis of individual vessel movements completed. For movements with cargo, the point of loading and the point of unloading of each individual commodity must be delineated. Cargo moved for the military agencies in commercial vessels is reported as ordinary commercial cargo; military cargo movements in Department of Defense vessels are not collected.

In summarizing the domestic commerce certain movements are excluded: Cargo carried on general ferries; coal and petroleum products loaded from shore facilities directly into bunkers of vessels for fuel; and insignificant amounts of government materials (less than 100 tons) moved on government owned equipment in support of Corps projects.

Foreign Commerce

Foreign commerce is waterborne import, export and in-transit traffic between the United States, Puerto Rico and the Virgin Islands and any foreign country. These statistics do not include traffic between any foreign country and the United States Territories and Possessions (American Samoa, Guam, North Mariana Islands and U.S. Outlying Islands).

Beginning with the calendar year 2000 publication, foreign waterborne import, export and in-transit cargo statistics are derived primarily from data purchased from the Port Import Export Reporting Service, a division of the Commonwealth Business Media, Inc. and supplemented by data furnished to the Corps of Engineers by the U.S. Bureau of the Census and the U.S. Customs and Border Protection . Foreign cargo is matched to vessel moves to improve geographic specificity.

The Republic of Panama is considered a foreign country. However, individual vessel movements with origin and destination at United States ports traveling via the Panama Canal are considered domestic traffic. Alaskan crude oil (origin at Valdez, AK) shipped via the Panama pipeline (west to east) and destined for gulf and east coast ports is also considered domestic commerce.

Import and export shipments for use of the

United States Armed Forces abroad are not reported to the Waterborne Commerce Statistics Center (WCSC). Beginning with calendar year 1989 shipments under the military assistance program of the Department of Defense are included in the statistics under the appropriate commodity code. In prior years these cargoes were given as commodity code 9999.

Commodity Descriptions

The first two digits of the WCSC publication codes correspond with the Lock Performance Monitoring System (LPMS) commodity codes. Both LPMS and WCSC codes were standardized to reflect the hierarchical structure of the Standard International Trade Classification (SITC) Revision 3 commodity codes. SITC, Rev. 3 commodity codes conform to the Harmonized Commodity Description and Coding System (HS). Using SITC, Rev. 3 allows direct comparisons with U.S. Imports, exports, and in-transits, as well as, with commodity movements of other countries.

Tonnage

The tonnage figures provided throughout the **WCUS**, **Parts 1-4** represent short tons (2,000 pounds). Tonnage figures are rounded to the nearest 1,000 tons.

A zero represents less than 500 tons but more than zero. A dash means no tonnage. Columns and rows may not add up exactly to totals and subtotals due to rounding.

Some freight tables have "Total" and "Grand Total". The "Total" means that in some cases it is the total for domestic or foreign and Canadian traffic. The "Grand Total" specifically represents the sum total of all the different traffics, including all domestic and foreign traffic. If a particular column or traffic type has only dashes and zeroes in the tonnage fields for that entire freight table then that column (traffic type) will not print.

Ton-Miles

For domestic movements, ton-miles equal the cargo tonnage times the distance between the point of loading on the water and the point of unloading on the water. For U.S. - Canada movements on the Great Lakes, ton-miles equal the tonnage times the distance between the U.S.

INTRODUCTION

and Canadian locations. For overseas imports and exports, foreign ton-miles are computed by multiplying the cargo tonnage by the miles carried on U.S. waterways and channels. Ton-miles are rounded to the nearest 1,000 ton-miles. The ton-mile data appears in the publication by traffic type at the end of a particular freight table for a given project. Since there are columns that will not print (see tonnage above) the ton-miles associated with these columns will likewise not be included in the total ton-miles for that particular freight table. They will be included in "Ton-miles All Traffic" at the end of the project.

Trips

A trip is a vessel movement. For self-propelled vessels, a trip is logged between every point of departure and every point of arrival. For loaded barges, a trip is logged from the point of the loading of the barge to the point of unloading of the barge (i.e., excluding fleeting areas). For empty barges, trips are logged from point of unloading to the point of loading counting the fleeting areas in between (e.g. if an empty barge moved from Dock A to Dock B and the barge stopped at three fleeting areas in between, then four trips are logged.)

Some towboat trips and empty barge moves are estimated from a sample to expedite processing and reduce costs. The number of trips also includes vessels engaged in foreign trade. These moves are furnished by U.S. Customs and Border Protection.

To more accurately reflect actual traffic patterns (e.g. inbound versus outbound trip counts), some adjustments are made to the domestic trip counts in the trip and draft tables in this publication.

Special Interest

Beginning in calendar year 2000, the tonnage of fish landings are no longer included in this publication.

Passenger totals are not included in this publication but are available on request. Passenger data not relevant to transportation such as excursions, sight-seeing, and floating casinos are no longer collected as of calender year 2001. As of calender year 2004, passengers, autos, and railway cars are not included in the domestic trips and drafts tables. Cruise ships in foreign traffic are included in the foreign trips and drafts tables.

Beginning in calender year 2001, the movement of tugboats used to assist larger vessels within the districts of New England (Boston), New York, New Orleans, Galveston (Houston) are no longer collected.

Terminology

Types of Traffic

Foreign

Inbound: Includes waterborne imports and inbound in-transit merchandise.

Imports

- **Overseas:** Inbound merchandise originating in foreign countries other than Canada and arriving by marine vessel for direct U.S. consumption and entries into custom bonded storage and manufacturing warehouses.
- **Canadian:** Inbound merchandise originating in Canada and arriving by marine vessel for direct U.S. consumption and entries into custom bonded storage and manufacturing warehouses.
- **Inbound In-transits:** Merchandise coming into the United States by marine vessel from a foreign country and shipped to a foreign country without having been entered as an import. In-transit merchandise is treated as inbound when unloaded from a marine vessel.
- Outbound: Includes waterborne exports and outbound in-transit merchandise.

Exports

- **Overseas:** Outbound domestic merchandise and re-export of foreign merchandise from a U.S. foreign trade zone shipped by marine vessel to foreign countries other than Canada.
- **Canadian:** Outbound domestic merchandise and re-export of foreign merchandise from a U.S. foreign trade zone shipped by marine vessel to Canada.
- **Outbound In-transits:** Merchandise coming into the United States from a foreign country and shipped by marine vessel to a foreign country without having been entered as an import. In-transit merchandise is treated as outbound when loaded onto a marine vessel.

Domestic

- **Coastwise:** Domestic traffic receiving a carriage over the ocean, or the Gulf of Mexico,(e.g. New Orleans to Baltimore, New York to Puerto Rico, San Francisco to Hawaii, Alaska to Hawaii). Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also termed **Coastwise**.
- Lakewise: Waterborne traffic between the United States ports on the Great Lakes System. The Great Lakes System is treated as a separate waterway system rather than as a part of the inland waterway system. In comparing historical data for the Great Lakes System, one should note that prior to calendar year 1990, marine products, and sand and gravel being moved from the Great Lakes to Great Lake destinations were classified as local traffic. From 1990 on, these activities are classified as lakewise traffic.
- **Internal:** Vessel movements (origin and destination) which take place solely on inland waterways. An inland waterway is one geographically located within the boundaries of the contiguous 48 states or within the boundaries of the State of Alaska.

The term "internal traffic" is also applied to these vessel movements: those which involve carriage on both inland waterways and the Great Lakes; those occurring between offshore areas and inland waterways (e.g., oil rig supplies and fish); and those taking place within Delaware Bay, Chesapeake Bay, Puget Sound, and San Francisco Bay, which are considered internal bodies of water rather than arms of the ocean.

- **Intraport:** Movement of freight within the confines of a port whether the port has one or several arms or channels included in the port definition. This traffic type will not include car-ferries and general ferries moving within a port.
- **Through:** Movements transiting a waterway, or stretch thereof, as defined in the project description of individual tables, and having origins and destinations outside of the defined area.
- **Intra-waterway:** Shipments and receipts within the limits of a river, waterway or canal. This traffic will not include car-ferries and general ferries moving within a waterway or Corps project.
- Intra-territory: Traffic between ports in Puerto Rico and the Virgin Islands, which are considered a single unit.

Traffic Direction

Waterways

- **Upbound:** Traffic that moves in an upstream direction. For waterways without a characteristic monodirectional flow (e.g. the Gulf Intracoastal Waterway), "upbound" means in a northerly or easterly direction.
- **Downbound:** Traffic that moves in a downstream direction. For waterways without a characteristic monodirectional flow, "downbound" means in a southerly or westerly direction.
- **Inbound:** Traffic moving from one waterway into another where the destination is on the subject waterway.
- Outbound: Traffic moving from one waterway into another where the origin is on the subject waterway.

Ports

- **Receipts:** Traffic moving from one location to another where the destination is within the limits of the subject port.
- Shipments: Traffic moving from one location to another where the origin is within the limits of the subject port.
- Commodity Descriptions: The first two digits of the Waterborne Commerce Statistics Center (WCSC) publication codes correspond with the Lock Performance Monitoring System (LPMS) commodity codes. Both LPMS and WCSC codes were standardized to reflect the hierarchical structure of the Standard International Trade Classification (SITC) Revision 3 commodity codes. SITC, Rev. 3 commodity codes conform to the Harmonized Commodity Description and Coding System (HS). Using SITC, Rev. 3 allows direct comparisons with U.S. imports and exports, as well as with commodity movements of other countries.
- **Tons:** The tonnage figures provided throughout the *Waterborne Commerce of the United States*, **WCUS**, **Parts 1-5** represent short tons (2,000 pounds).

Where noted, tonnage figures are rounded to the nearest thousand tons. A zero represents less than 500 tons but more than zero. Dashes mean zero tons. Columns and rows may not add up exactly to totals and subtotals due to rounding.

Ton-miles: Water carriage ton-miles were first compiled and published in calendar year 1962. The distances used are statute miles. The ton-mile parameter measures the total activity on a waterway or channel. Ton-miles are not computed for ports.

Domestic ton-miles are calculated by multiplying the tons of commerce being moved by the number of miles actually moved on the water from the point of loading onto the vessel to the point of unloading off of the vessel. Coastwise ton-miles includes the distance across open ocean and

the Gulf of Mexico.

For rivers, inland waterways and coastal routes the distances were computed from waterway survey maps, NOAA charts and records of the Corps of Engineers.

For the Great Lakes system the ton-miles are computed for movements of cargo west of the international boundary of St. Regis, Quebec, Canada to head of Lake Superior at Duluth, MN and Superior, WI.

For lakewise domestic movements, ton-miles equal the cargo tonnage times the distance between the U.S. Great Lakes ports.

For Canadian imports and exports, and in-transits across the Great Lakes foreign ton-miles are computed as the tonnage times the distance between the U.S. and Canadian ports.

For overseas imports and exports, and in-transits foreign ton-miles are computed by multiplying the cargo tonnage by the miles carried on U.S. waterways and channels. Distances across the oceans are <u>not</u> included in the computation of the overseas foreign ton-miles.

Ton-miles are rounded to the nearest thousand.

- **Trip Ton-miles:** Trip ton-miles is a measure of a single waterway's contribution to the whole waterway system. Trip ton-miles are computed by identifying every commercial cargo-carrying vessel that has plied a particular inland waterway and summing the products of the tons times the total trip-miles for each vessel trip. "Trip-miles" is the total distance from origin (loading) to destination (unloading). For example, a barge carrying 1,200 tons of wheat might only travel 30 miles on the Illinois River but its total trip to New Orleans might be 1,000 miles. This trip would contribute 1,200,000 trip ton-miles to the Illinois River. Small rivers often contribute to the traffic on larger rivers. Published trip ton-miles do not include coastal and Great Lakes vessel movements.
- **Trans-shipments:** Ports and offshore anchorages where cargo is moved from one vessel to another. These are: St. Lucia, Virgin Islands; Heald Bank off the Louisiana and Texas coasts; Chirqui Grande, Panama; Puerto Armuelles, Panama; and Hondo Platform-Pacific Ocean.

Commodity Classification List

Major Grouping Major Grouping Minor Grouping Minor Grouping Pub Group Pub Name Pub Group Pub Name 3282 **Pigments & Paints** 00 Units 3283 Coloring Mat. NEC 0200 Vehicles 3284 Medicines 0300 Passengers 3285 Perfumes & Cleansers 3286 Plastics 10 Coal 3291 Pesticides 1100 Coal & Lignite 3292 Starches, Gluten, Glue 1200 Coal Coke 3293 Explosives 3297 Chemical Additives 20 Petroleum & Petroleum Products 3298 Wood & Resin Chem. 21 Crude Petroleum 3299 Chem. Products NEC 2100 Crude Petroleum 22-29 Petroleum Products 40 Crude Materials, Inedible Except Fuels 2211 Gasoline 41 Forest Products, Wood and Chips 2221 Kerosene 4110 Rubber & Gums 2330 Distillate Fuel Oil 4150 Fuel Wood 2340 Residual Fuel Oil 4161 Wood Chips 4170 Wood in the Rough 2350 Lube Oil & Greases 2410 Petro. Jelly & Waxes 4189 Lumber 2429 Naphtha & Solvents 4190 Forest Products NEC 2430 Asphalt, Tar & Pitch 42 Pulp and Waste Paper 2540 Petroleum Coke 4225 Pulp & Waste Paper 2640 Hydrocarbon & Petrol Gases, 43 Soil, Sand, Gravel, Rock and Stone Liquefied and Gaseous 4310 Building Stone 2990 Petro, Products NEC 4322 Limestone 4323 Gypsum 30 Chemicals and Related Products 4327 Phosphate Rock 31 Fertilizers 4331 Sand & Gravel 3110 Nitrogenous Fert. 4333 Dredged Material 3120 Phosphatic Fert. 4335 Waterway Improv. Mat 3130 Potassic Fert. 4338 Soil & Fill Dirt 3190 Fert. & Mixes NEC 44 Iron Ore and Scrap 32 Other Chemicals and Related Products 4410 Iron Ore 4420 Iron & Steel Scrap 3211 Acyclic Hydrocarbons 45 Marine Shells 3212 Benzene & Toluene 4515 Marine Shells 3219 Other Hydrocarbons 46 Non-Ferrous Ores and Scrap 3220 Alcohols 4630 Copper Ore 3230 Carboxylic Acids 4650 Aluminum Ore 3240 Nitrogen Func. Comp. 4670 Manganese Ore 3250 Organo-Inorganic Comp. 4680 Non-Ferrous Scrap 3260 Organic Comp. NEC 4690 Non-Ferrous Ores NEC 3271 Sulphur (Liquid) 47 Sulphur, Clay and Salt 3272 Sulphuric Acid 4741 Sulphur, (Dry) 3273 Ammonia 4782 Clay & Refrac. Mat. 3274 Sodium Hydroxide 4783 Salt 3275 Inorg. Elem., Oxides, 48 Slag & Halogen Salts 4860 Slag 3276 Metallic Salts 49 Other Non-Metal, Min. 3279 Inorganic Chem. NEC 4900 Non-Metal. Min. NEC 3281 Radioactive Material

Commodity Classification List (continued)

Major Grouping Minor Grouping			Major Grouping Minor Grouping						
	Pub Group	Pub Name	Ţ	Pub Grouping	up Pub Name				
50 Prim. 51	ary Manufactur Paper Produc 5110 N 5120 F	red Goods cts Newsprint Paper & Paperboard		6822 6835 6838 6838	Dairy Products Fish, Prepared Tallow, Animal Oils Animals & Prod. NEC				
52	5190 F Lime, Cemen 5210 L 5220 (5240 (Paper Products NEC at and Glass Lime Cement & Concrete Glass & Glass Prod.		6856 6857 6858 6861 6865	Bananas & Plantains Fruit & Nuts NEC Fruit Juices Sugar Molasses				
53	Primary Iron a 5312 F 5315 F 5320 I 5330 I 5360 I	And Steel Products Pig Iron Ferro Alloys &S Primary Forms &S Plates & Sheets &S Bars & Shapes &S Bars & Shapes		6871 6872 6885 6887 6888 6888 6889 6891	Coffee Cocoa Beans Alcoholic Beverages Groceries Water & Ice Food Products NEC Tobacco & Products				
54	5390 F Primary Non- 5421 (5422 F	Primary I&S NEC Ferrous Metal Products Copper Aluminum	70	6893 6894 6899	Cotton Natural Fibers NEC Farm Products NEC				
55	5429 5 5480 F Primary Wood 5540 F	Smelted Prod. NEC Fab. Metal Products d Products; Veneer Primary Wood Prod.	70	and Product 7110 7120 7210	Machinery (Not Elec) Electrical Machinery				
60 Food 61	and Farm Pro Fish 6134 F	oducts Fish (Not Shellfish)		7220 7230 7300	Aircraft & Parts Ships & Boats Ordnance & Access.				
62-64	6136 S Grain 6241 V 6344 C 6442 F	Shellfish Wheat Corn Rice		7400 7500 7600 7800 7900	Manufac: Wood Prod. Textile Products Rubber & Plastic Pr. Empty Containers Manufac. Prod. NEC				
	6443 E 6445 (6447 S	Barley & Rye Dats Sorghum Grains	80	Waste and Scra 8900	p NEC Waste and Scrap NEC				
65	Oilseeds 6521 F 6522 S 6534 F 6590 C	Peanuts Soybeans Flaxseed Dilseeds NEC	90	Unknown or Not 99 Unknown 9900	Elsewhere Classified or Not Elsewhere Clsfd Unknown or NEC				
66	Vegetable Pro 6653 V 6654 V	oducts /egetable Oils /egetables & Prod.							
67	Processed Gr 6746 V 6747 C 6781 H 6782 A	Animal Feed Wheat Flour Grain Mill Products Hay & Fodder Animal Feed Prep							
68	Other Agricult 6811 N 6817 N	tural Products Meat, Fresh, Frozen Meat, Prepared							

TABLE 1-TON-MILEAGE OF UNITED STATES FREIGHT CARRIED ON THE GREAT LAKES BY AREA

(nousaid cri-inies)												
	l	Foreign			Domestic							
Area	Area Totals	Overs	seas	Cana	dian	Coa	istwíse	Lakev	vise	Inte	ernal	Intraport
		In/Out	Through	In/Out	Through	In/Out	Through	In/Out	Through	In/Out	Through	In/Out
DETROIT RIVER. MI	2,042,653	15,253	139,957	63,192	911,710	*******	j	245,231	664,697	2,311	301	
*LAKE ERIE	13,286,507	542,782	1,379,488	3,786,251	4,493,121	3,034	—	2,673,583	407,179	1,070	—	
LAKE HURON	24,785,079	1,926	1,232,665	750,752	7,434,967			4,458,872	10,898,266		7,630	
**LAKE MICHIGAN	22,640,470	1,096,713		4,163,955				14,674,954	2,592,753	17,909		94,186
***LAKE ONTARIO	7,846,448	953	2,895,015	60,143	4,882,583	- 1	4,245	3,509				
LAKE SUPERIOR	26,462,606	840,190	<u> </u>	5,145,927	470,347			20,005,890	251	1		
ST. CLAIR RIVER. MI	2,799,893		176,075	7,198	1,205,966			170,138	1,239,479		1,037	
****ST. LAWRENCE RIVER	2,102,960		827,712	30,046	1,243,990	—	1,211		—			
ST, MARYS RIVER, MI	4,874,234	- -	139,986	6,419	1,203,195	-		32,692	3,491,943			
WELLAND CANAL, CANADA	720,960		200,939		519,233		295		493			
NET UNITED STATES TRAFFIC ON THE GREAT LAKES	107,561,810	9,489	,655	36,378	,996	8,	785	61,559	,929	14,	808	109,637

*Including Upper Niagara River **Including the Port of Chicago (Chicago Harbor, North Branch, South Branch, Sanitary Ship Canal, Calumet-Sag Channel, Lake Calumet and Calumet Harbor and River); excludes Port of Chicago internal traffic ***Including Lower Niagara River ****Between International boundary line and Lake Ontario
TABLE 2-FREIGHT TONS OF UNITED STATES TRAFFIC CARRIED ON THE GREAT LAKES BY AREA (thousand short tons)

		Foreign				Domestic						
Area	Area Totals	Overseas		Canadian		Coastwise		Lakewise		In	ternal	Intraport
		In/Out	Through	In/Out	Through	In/Out	Through	In/Out	Through	In/Out	Through	In/Out
DETROIT RIVER, MI	72,729	730	4,515	3,648	29,410			12,770	21,442	205	10	
*LAKE ERIE	80,366	2,197	5,245	22,979	19,082	11		23,194	4,312	10		3,337
LAKE HURON	111,339	6	4,508	3,196	29,589	_		18,861	55,153		27	
**LAKE MICHIGAN	64,411	2,321		9,465				35,226	8,608	2,950		5,840
***LAKE ONTARIO	27,475	15	7,442	764	19,225		11	18	0		·	
LAKE SUPERIOR	77,473	2,187		14,586	2,658	—	_	57,975	13	1		53
ST. CLAIR RIVER, MI	77,481		4,515	629	30,922		*	9,607	31,782	<u> </u>	27	
****ST, LAWRENCE RIVER	18,755		7,457	157	11,130	i —	11	—				
ST. MARYS RIVER, MI	81,299	_	2,187	298	23,252	·		1,000	54,562			
WELLAND CANAL, CANADA	26,684		7,442		19,212		11		18	-		
NET UNITED STATES TRAFFIC ON THE GREAT LAKES	173,013	7,4	57	56	5,215	.	11	96,	934	2,	673	9,723

*Including Upper Niagara River **Including the Port of Chicago (Chicago Harbor, North Branch, South Branch, Sanitary Ship Canal, Calumet-Sag Channel, Lake Calumet and Calumet Harbor and River); excludes Port of Chicago internal traffic ***Including Lower Niagara River ****Between International boundary line and Lake Ontario

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TABLE 3 - NET SUMMARY OF FOREIGN AND DOMESTIC FREIGHT CARRIED ON THE GREAT LAKES BY TYPE OF TRAFFIC AND COMMODITY

				•	,		
Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	188,579 192,235 182,862	2000 2001 2002	187,489 171,359 167,226	2003 2004 2005	156,484 178,434 169,411	2006	173,013

		Foreign				Domestic				
Commodity	Grand Tota	Inbou Canadian**	nd Overseas*	Outbo	und Overseen	Coastwise	Lakewise	Internal	Intraport	
Total, all commodities	173.013	22.519	3.605	33.696	3.852		96.934	2 673	9.723	
Total coal sector is vieweeter total total one of	44 906	1 200	495	40.040	 22:00-001511	21910-2010-001	04.000			
1100 coal & lignite 1200 coal coke	42,824 2,073	783	135	18,266 346	41		20,839 361	805 115 691	2,823 2,822 2	
Total petroleum and petroleum products	5,067	676		1,692	59	****** ` 11	1,469	320	841	
Subtotal crude petroleum	115			115			·			
Subtotal petroleum products	4.952	676	0	1.577	59	11	1.469	320	841	
2211 gasoline	537		_	215	6	11	291	11	3	
2330 distillate fuel oil	32 783	221		32			126	62		
2340 residual fuel oil	530	294		29			114	52	41	
2350 lube oil & greases	4	—		4		i —				
2429 naphina & solvents 2430 asphalt tar & nitch	33		_	54			8	160	19	
2540 petroleum coke	1,988	156	_	1.110	53		165	109	490	
2640 hydrocarbon & petrol gases, liquefied and	· 1		****=	—		•	1	Ő	Ō	
2990 petro, products nec	13		·				1	4	7	
Total chemicals and related products	990	277	38	334			139	55	146	
3110 nitrogenous fert	270	215	6					49	—	
3120 phosphatic fert.	ີ້ວ		`	_			_	5	_	
3130 potassic fert.	216	215						1	_	
3190 left, & mixes nec Subtotal other chemicals and related	720	67	22	324			120	2	446	
products	120	03	32	JJ4			129	0	140	
3211 acyclic hydrocarbons	12			12			0			
3212 denzene & toluene 3219 ofher bydrocarbons	/8 37			78					29	
3220 alcohols	21			_			0		15	
3250 organo - inorg. comp.	0			0		i —-				
3250 organic comp. nec 3274 sedium hydroxide	5 16			6 16						
3275 inorg. elem., oxides, & halogen salts	128	63	0	65		_				
3276 metallic salts	421	****** <u>*</u>	23	155			139		103	
3282 pigments & paints 3285 perfumes & cleansers	0	_	a	0		_				
3286 plastics	õ			Ő						
3299 chem, products nec	0			0					—	
Total crude materials, inedible except fuels	105,111	16,814	433	11,355	464	lain Alteration The sciences alte	69,381	979	5,684	
4170 wood in the rough	53	90 18	41	33			ย ก		0	
4189 lumber	118	78	40		—		ŏ		_	
4190 forest products nec Subtotal pulp and waste paper	122		400	0						
4225 pulp & waste paper	122		122	_			_	_		
Subtotal soil, sand, gravel, rock and stone	37,157	5,459		4,074	43		25,029	278	2,274	
4310 building stone 4322 limestone	41 30 008	3 854		3 224			22 842			
4323 gypsum	927	3,554		119			23,012	278	~~~~	
4331 sand & gravel	5,192	1,597		693	43		643	Ō	2,215	
4335 waterway improv. mat 4338 soil & fill dirt	90						53		37	
Subtotal iron ore and scrap	58,848	5,770		6,438	230		42.895	227	3.288	
4410 iron ore	58,573	5,653		6,429	230		42,830	177	3,254	
Subtotal non-ferrous ores and scrap	275	200	240	422		—	65	50	34	
4650 aluminum ore	204	118	84		<u></u>			2	_	
4670 manganese ore	10	5						5		
4000 aon-terrous scrap 4690 non-ferrous ores nec	248 154	83	165	130	 01					
Subtotal sulphur, clay and salt	419	141	13	25	170		9	59		
4782 clay & refrac. mat.	419	141	13	25	170	—	9	59		
aubiotal slag 4860 slag	2,181	1,052		184			537	407	2	
Subtotal other non-metal. min.	5,597	4,088	7	469			537 910	407	122	
4900 non-metal, min, nec	5,597	4,088	7	469			910	i	122	

		Foreign				Domestic			
Commodity	Grand Total	odel	ound	Outbo	und	Coastwise	Lakewise	Internal	Intraport
		Canadian" (verseas	Canadian O	verseas				
Total primary manufactured goods	11,188	3,323	2.840	123	5		4.253	430	214
Subtotal paper products	1		1	0					
5120 paper & paperboard	1	· _	1						
Subtotal lime, cement and class	7 223	3 0 18		· U			4 028		
5210 lime	54								45
5220 cement & concrete	7,151	3,002		122			3,974	5	49
5240 glass & glass prod.	0			0					
Subtotal primary iron and steel products	51 7 83 2	1/	2 671	י ט מ			0	2	480
5312 pig iron	483	173	79	·			116	112	:00
5320 i&s primary forms	1,395	34	1,355	i <u> </u>		- I		4	1
5330 i&s plates & sheets	1,336	5	. 986				Ŏ	244	101
5370 i&s pine & tube	200		189	. U	•••••		0	g	2
5390 primary i&s nec	216	5	6	;			108	44	54
Subtotal primary non-ferrous metal	277	87	168	: 1	5		1	11	5
products 5422 aluminum	70		_				~		
5422 automutit 5429 smelted prod. sec	70	69	2						
5480 fab. metal products	205	18	166	0	5		1	10	5
	E 400					I A ASAMAS			a ang sa sa
Subtotal fish	າມະຫະລຸ 49 8 ຄ		56 - 13 59 - 27		-∷-3,2/4 ••••				
6134 fish (not shellfish)	ŏ						ŏ	_	
Subtotal grain	3,871	149	15	933	2,405	i	342	26	
6241 wheat	1,636	. 50	15	153	1,333		81	3	•
6445 oats	360	99			1,072		261		
Subtotal oliseeds	1,231			594	594		2	42	
6522 soybeans	1,161		_	594	553		2	12	
6500 oilseeds nec	41				41		_		_
Subtotal vegetable products	83				83				
6654 vegetables & prod.	83	—		·	83				
Subtotal processed grain and animal feed	42			. 30	12				
5/4/ grain mile products Subtotal other agricultural products	42	1	73	· 30	12			14	
6822 dairy products	2/1			Ō					
6835 fish, prepared	ō			· Ó		·			
6861 sugar	95		73	· _	9	· —		14	
6885 alcoholic beverages	23								
6889 food products nec	ŏ			. õ					
6899 farm products nec	172				172	-			
Total all manufactured equiloment	201	1990,899.45		00000000000	a		126		
machinery and products				and an easy of	er e e			egen -	
7110 machinery (not elec)	78	1	29	1 7	8	il —-	17	2	14
7120 electrical machinery	9	0	ç) 8	0	· –	_	0	
7210 venicies a paris 7230 shins & hoats	1		i C	บ เ 2			U n		
7400 manufac, wood prod.	ŏ			. õ			_	0	0
7500 textile products	1			• 0		·	1	·····	
7600 rubber & plastic pr.	0		C	0		· —	107		
raoo manulae, prou, nec	113	U U	3	1		'l	107		U
Total unknown or not elsewhere classified	60		38	0	5.v		22		
9900 unknown or nec	60		38	i 0		·	22		·····
		1				1			
Tons All Traffic (x1000) Total Trip ton miles Internal and Internet (x100	17 01 202	3,013							
Lores unb-rou-unies internation intrabolit (x into	uj ujuz	9,004							

TABLE 3 - NET SUMMARY OF FOREIGN AND DOMESTIC FREIGHT CARRIED ON THE GREAT LAKES BY TYPE OF TRAFFIC AND COMMODITY Freight Traffic, 2006 - continued (thousand short tons)

U.S. ARMY CORPS OF ENGINEERS

* Includes 13,436 tons of foreign inbound in-transits. ** Includes through traffic.

Section 1 Freight Traffic

WAUKEGAN HARBOR, IL

Section Included: Artificial harbor basin of about 13.5 acres and entrance channel from Lake Michigan approximately 2,200 feet in length. Project Depth: 22 feet in entrance channel; 18 feet between piers and inner basin; 8 feet in anchorage area of approximately 6 acres. Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	473 555 560	2000 2001 2002	740 518 552	2003 2004 2005	641 571 643	2006	606

Freight Traffic, 2006 (thousand short tons)

			Domestic		
Commodity	Grand Total	Lake	Internal		
		Receipts	Shipments	Intraport	
Total, all commodities	606	595	10		
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4323 gypsum 4335 waterway improv. mat	265 265 261 4	262 262 261 1	2 2 _2 2	1 1 1 1	
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	341 341 341 341	333 333 333	8 8 8 8	=	

CHICAGO RIVER (MAIN AND NORTH BRANCH), IL (INCLUDED IN PORT OF CHICAGO)

Section Included: Main River from Rush Street to junction of North and South Branch; North Branch to North Avenue. Project Depth: 21 feet from Rush Street in the Main River to North Avenue in the North Branch, including the North Branch Canal and the North Turning Branch Basin.

Comparative	Statement of	Traffic	(thousand	short	tons)
-------------	--------------	---------	-----------	-------	-------

Year	Total	Year	Total	Year	Total	Year	Total
1997	733	2000	1,178	2003	1,828	2006	1,754
1998	935	2001	1,413	2004	1,730		
1999	949	2002	1,269	2005	1,662		

Freight Traffic, 2006 (thousand short tons)

			Inte	mal	
Commodity	Grand Total	Inbound	Outbound	Thr	ough
		Upbound	Downbrid	Upbound	Downbnd
Total, all commodities	1,754	1,369	260	97	29
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2540 petroleum coke	38 38 12 26	######################################	<u></u>	20 20 5 15	18 18 7 11
Total chemicals and related products Subtotal fertilizers 3110 nitrogenous fert. Subtotal other chemicals and related products 3276 metallic salts	77- 1 1 76 76 76	1		76 76 76	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4420 iron & steet scrap Subtotal slag 4860 slag Subtotal other non-metal, min. 4900 non-metal, min. nec	1,613 1,251 6 1,244 251 251 4 4 107 107	1,354 1,251 6 1,244 — — — 104 104	249 	2 2 2 	8 5 5 3 3
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5315 ferro alloys 5330 i& plates & sheets	26 21 21 4 3 1	13 11 11 2 2 —	10 10 10 		3
Ton-miles (x1000)	947	702	245	0	0
Tons All Traffic (x1000) Ton-miles All Traffic (x1000)	1,754 947	I			

Total Trip-ton-miles Internal and Intraport (x1000) 445,735

CHICAGO RIVER, SOUTH BRANCH, IL (INCLUDED IN PORT OF CHICAGO, ALSO INCLUDED IN STATISTICS FOR ILLINOIS WATERWAY)

Section Included: Damen Avenue to Lake Street. Maintained Depth: 9 feet at low water stages.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	1,247 1,500 1,680	2000 2001 2002	1,598 2,286 2,197	2003 2004 2005	3,946 3,616 3,515	2006	4,116

			Inte	mal	
Commodity	Grand Total	Inbound	Outbound	Thro	ough
		Upbound	Downbrid	Upbound	Downbrid
Total, all commodities	4,116	2,184	177	1,397	357
Total coal allocation and the second	994 994	994 994	<u></u>		
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2540 petroleum coke	38 38 12 26		 	18 18 7 11	20 20 5 15
Total chemicals and related products Subtotal fertilizers 3110 nitrogenous fert. Subtotal other chemicals and related products 3276 metallic salts	77 1 1 76 76			1 1 	76 76 76 76
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4420 iron & steel scrap Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min.	2,732 2,190 6 2,184 427 427 6 6 108 108	943 940 940 — 2 2 1 1	176 176 176 	1,362 1,251 6 1,244 5 5 	251 246 246 4 4
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5315 ferro alloys 5330 i&s plates & sheets 5390 primary i&s nec	275 269 269 6 3 1 2	247 247 247 	2 2 2 2 2	15 11 11 4 3 1	10 10 10 — —
Ton-miles (x1000)	11,971	3,202	0	6,986	1,783
Tons All Traffic (x1000) 4 116		1			

Freight Traffic, 2006 (thousand short tons)

 Tons All Traffic (x1000)
 4,116

 Ton-miles All Traffic (x1000)
 11,971

 Total Trip-ton-miles Internal and Intraport (x1000)
 1,009,298

LAKE CALUMET, IL (INCLUDED IN PORT OF CHICAGO)

Section Included: Entrance channel from the Calumet River to a harbor area at south end of take with a channel extending northward for a distance of 3,000 feet and a width of 1,000 feet. Project Depth: 27 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	1,845 2,354 1,986	2000 2001 2002	1,924 1,153 1,078	2003 2004 2005	963 1,366 1,692	2006	1,804

otal	Inbound	Inhound		Total	Lak	ewise	Inte	mal
"ai	Inbound	ام هر بر م ط م ا	-				Internal	
	Inbound	I Inbound Outbound		Renalizato Obligue entre		Chinmonto	Inbound	Outbound
		-		Receipts Shipments			Upbound	Downbnd
304	12	¥ 70	66	1,657	516	34		92
66 66			33 33	33 33	6 6	7	21 21	
32				32	6	7	20	
1		·	—	1			1	
33			33			_		
	304 66 32 1 33	304 12 66 32 33	304 12 70 66	304 12 70 66 66	304 12 70 66 1,657 66 33 33 33 66 33 33 32 32 1 1 33 33	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

		Foreign	Canadian			Domestic						
Commodity	Crond Total				Total	La	kewise	Inte	ernal			
Commodity	Grand Total	Inbound	Inbound	Outbound		Receipts	Shinments	Inbound	Outbound			
					<u> </u>	110001pii		Upbound	Downbnd			
Total chemicals and related products	32				27							
Subtotal other chemicals and related products	32				32		· · · · · · · · · · · · · · · · · · ·	7	25			
3219 other hydrocarbons	3				3		·	3				
SZO AKOROIS	29	*****	_		29			4	25			
Total crude materials, inedible except fuels	104		33		72	3		42	27			
Subtotal soil, sand, gravel, rock and stone	49		33		17		·	17				
4335 waterway improv, mat	44 5		33		11			11				
Subtotal iron ore and scrap	54				54	3		25	27			
4410 iron ore	24		—		24		*	24				
Subtotal subhur, clay and salt	31				31	3		1	27			
4782 clay & refrac. mat,	i	_		_	i		_	1	_			
Total primary manufactured goods	1 606	200.40		946999024	4-457	Eno						
Subtotal lime, cement and glass	435		- Anhann 30		435	402	• 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	15	90			
5220 cement & concrete	435	·	—		435	402		15	18			
5312 pig iron	1,051	12	38		1,001	106	27	847	20			
5315 ferro alloys	-00				400	ted former		427				
5320 i&s primary forms	63	5	33	_	25		· _	25				
5350 i&s plates & sneets 5360 i&s bars & shapes	213		5		208			208				
5390 primary i&s nec	249	····-	_	_	249	106	_	123	20			
Subtotal primary non-ferrous metal products	20				20	_		20				
5429 smelted prod. nec	2			_	· 2	h		2				
5480 fab. metal products	18	_	_		18	_		18	_			
Total food and form products		H S LASS HATC	anan ar s				i na vijedeja po		5126884. J. S.			
Subtotal oilseeds			ididide -	30 30			1.00134000 	BE				
6522 soybeans	30			30								
Subtotal vegetable products	21				21			21				
Subtotal other agricultural products	40	_			40	_		40				
6861 sugar	40			_	40	•••••	·	40				
Total all manufactured equipment, machinery and				2	1953			i da da da Saliko (da da 1933 - Tito Angelandar	સાર્ગ ને ન			
products			ties:						2011 - C.			
7110 machinery (not elec) 7230 ships & boats	1				1				1			
	2			. 2								
Ton-miles (x1000)	1,443	0	29	63	1,351	514	7	741	90			
Tops All Traffic (x1000)	1 804											
Ton-miles All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)	1,004 1,443 1,394,918											

LAKE CALUMET, IL (INCLUDED IN PORT OF CHICAGO) Freight Traffic, 2006 - continued (thousand short tons)

CALUMET HARBOR AND RIVER, IL AND IN (INCLUDED IN PORT OF CHICAGO)

Section Included: Calumet Harbor and River to turning basin no. 5 (130th Street Bridge). Project Depth: 29 feet in approach channel, 28 feet in outer harbor anchorage area, 27 feet in river entrance channel to E. J. & E. R. R. Bridge, and 27 feet in river to and including Basin No. 5, (130th Street Bridge).

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	16,552 16,703 15,895	2000 2001 2002	13,925 11,481 11,034	2003 2004 2005	11,213 15,396 14,770	2006	14,596

			Foreign			Canadian			
	Commodity	Total	Inbound	Outbound	 Downbnd	Inbound	Outbound	Thro Uobound	ugh Downbnd
Total, all commodities		3,165	348	125	12	1,118	1,427	66	70
Total_coal 1100 coal & lignite 1200 coal coke		318 176 142					318 176 142		
Total petroleum and Subtotal petroleum 2330 distillate fuel oil 2340 residual fuel oil 2350 lube oil & greases	petroleum products products	877 877 20 4		34 34 	 	15 15 12 	795 795 8 4 4	33 33 	

CALUMET HARBOR AND RIVER, IL AND IN (INCLUDED IN PORT OF CHICAGO) Freight Traffic, 2006 - continued (thousand short tons)

			Foreign			Can	adian	
Commodity	Total	Inbound	Outbound	Through Downbnd	Inbound	Outbound	Three Upbound	ough Downbnd
2430 asohalt, tar & pitch 2540 petroleum coxe	15 833	_	34	• • • • • • •	-3	15 763	33	
Total chemicals and related products Subtotal other chemicals and related products 3219 other hydrocarbons	9 9 9	9 9 9			=			
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 imestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal non-ferrous ores and scrap 4650 aluminum ore Subtotal sulphur, clay and sait 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	1,190 244 126 118 127 127 30 30 65 65 31 31 693 693				1,098 151 126 26 127 127 30 30 65 65 65 31 31 693 693	60 60 60 		33 33 33 33
Total primary manufactured goods Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec Subtotal primary non-ferrous metal products 5429 smelled prod. nec 5480 fab. metal products	392 389 149 203 14 .16 6 3 3 1 2	337 334 111 198 8 16 1 3 1 2		12 12 5 7 	5 5 			38 38 33 5
Total food and farm products Subtotal grain 6344 corn Subtotal oliseeds 6522 soybeans Subtotal processed grain and animal feed 6747 grain mill products	375 226 226 119 119 30 30		91 91 91 			254 135 135 89 89 30 30	30 30 30 	
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7230 ships & boats	4 1 2	-1 		<u></u>			2 	
Total unknown or not elsewhere classified 9900 unknown or nec	0 0	0 0				1892) <u>413</u> —	1. 	9, 2883 <u></u>
Ton-miles (x1000) Foreign & Canadian	12,878	1,887	478	71	4,071	5,555	393	422

			Lakewise					
Commodity	Total	Receipts	Shipments	Thro Upbound	ugh Downbnd			
Total, all commodities	5,255	1,170	3,535	34	516			
Total coal 1100 coal & lignite 1200 coal coke	2,986 2,713 273		2;986 2,713 273		· · · · · · · · · · · · · · · · · · ·			
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuei oil 2430 2430 asphalt, tar & pitch 2540 petroleum coke	176 176 12 9 155	12 12 	152 152 	7 7 7	6 6 —			
Total crude materials, inedible except-fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore and scrap 4420 iron steel scrap Subtotal sulphur, clay and salt 4782 clay & refrac. mat. Subtotal other non-metal, min. 4900 non-metal, min. nec	869 743 743 20 15 6 9 9 97 97	809 712 712 97 97	57 30 30 18 15 3 9 9 9		3 3 3 			

CALUMET HARBOR AND RIVER, IL AND IN (INCLUDED IN PORT OF CHICAGO) Freight Traffic, 2006 - continued (thousand short tons)

			Lakev	vise	
Commodity	Total		Shipments	Thro Upbound	ough Downbnd
Total=primary manufactured_goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5312 pig iron 5390 primary i&s nec	1,224 1,051 1,051 172 64 108	348 348 348 —-	340 301 301 39 37 2	27. 	508 402 402 106 106
Total food and farm products Subtotal oilseeds 6522 soybeans	2 2 2	2 2 2	 		
Ton-miles (x1000) Lakewise	22,896	3,631	16,142	40	3,082

				Inter	nal		
Commodity	Total	Inbe	ound	Outbound	Thr	ough	Intra
		Upbound	Downbrid	Downbrid	Upbound	Downbnd	Downond
Total all commodifies	C 47E	200		047			
	som of station	~~ <u>~</u> 430.	en de la contractor de la c	·****		000000000 3∠1 00	aabbab daa 1 4 t
Total coal	939	127	1722 - 1 4 - 1	5.	807		
1100 coal & lignite	226	110		2	115	_	
1200 coal coke	713	17	<u> </u>	3	692		
Total petroleum and petroleum products	1.368	938		124	133	171	2
Subtotal petroleum products	1,368	938		124	133	171	2
2211 gasoline	11		•		6	5	
2330 distillate fuel oli 2340 residuel fuel oli	86	11		2	2/	46	
2429 naphtha & solvents	21				7	14	
2430 asphalt, tar & pitch	98	20		7		72	
2540 petroleum coke	1,081	883		112	50	34	2
2990 petro, products nec	14			3	10	1	
Total chemicals and related products	179	85		13	55	26	
Subtotal fertilizers	78	29		_	49		
3110 nitrogenous fert.	67	26	—		42	—	—
3120 phosphatic tert.	5		_	—	5	—	
3190 fert & mixes nec	5	3	_	_	2		
Subtotal other chemicals and related products	100	56		13	6	26	—
3220 alcohols	44	26		13	6		
3275 inorg. elem., oxides, & halogen salts	19	19					
3276 metallic saits 3279 jagraphic chemines	29	3	·			20	
3299 chem. products nec	š	3				_	
n and an	4.000	200	ug spin .		a de la company	004	a en gran de la
Subtotal forest products, wood and chips		800.0325	den eisen s .	364			ing ing and a second
4161 wood chips	ĕ	Ğ					
4190 forest products nec	2	2	—		—		—
Subtotal soil, sand, gravel, rock and stone	307	27	 •	2	278		
4322 Illinestone	19	19			278		
4331 sand & gravel	2,0	8	_	2	2/0	_	_
Subtotal iron ore and scrap	621	49		349	201	23	·
4410 iron ore	273	46		50	168	9	
4420 Iron & steel scrap Subtatal non formula area and carea	347	3		298	33	14	
4650 aluminum ore	21	20			2	_	
4670 manganese pre	43	38			5		
4690 non-ferrous ores nec	12	12		_	-	—	
Subtotal sulphur, clay and salt	139	80			59		
Subtotal slag	139	80		14	09	309	
4860 slag	424	3		14	98	309	
Subtotal other non-metal, min.	95	91	3		1		
4900 non-metal, min, nec	95	91	3		1		
Total primary manufactured goods	1.726	1.014	2	117	245	348	8 - -
Subtotal lime, cement and glass	163	48		109	3	3	
5220 cement & concrete	162	48	—	109	2	3	
Subtotal primary iron and steel products	1 4 3 4	840		_;	324	244	
5312 pig iron	358	243			115		
5315 ferro alloys	177	175	2	1		·	
5320 i&s primary forms	33	27			4	1	
5360 i&s bars & sheets	566 24	218		4	88	256	_
5390 primary i&s nec	213	113			0 16	2 82	_
· · · · · · · · · · · · · · · · · · ·				-			

CALUMET HARBOR	AND RIVER, IL AND IN (INCLUDED IN	PORT	OF CHICAGO)
	Freight Traffic, 2006 - continued		······································
	(thousand short tons)		

		Internal						
Commodity	Total	Inbo	bund	Outbound Three		zugh	Intra	
		Upbound	Downbrid	Downbrid	Upbound	Downbrid	Downbnd	
Subtotal primary non-ferrous metal products 5422 aluminum 5429 smelled prod. nec 5480 fab. metal products	1 31 3 22 106	117 3 22 92			10 0 10	4 	 	
Total food and farm products Subtotal grain 6241 wheat 6344 corn Subtotal oilseeds 6522 soybeans 6590 oilseeds nec Subtotal other agricultural products 6861 sugar 6865 molasses	269 200 47 153 51 22 29 18 14 14	4		184 174 44 130 10 10 	43 29 29 14 14	38 26 3 23 12 12 12 		
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7600 rubber & plastic pr. 7900 manufac, prod. nec Ton-miles (x1000) Internal	25 13 10 1 24,206		9	10 10 1,727	2 2 11,574	11 11 5,561		
Tons All Traffic (x1000) 14,596 Ton-miles All Traffic (x1000) 59,980 Total Trip-ton-miles Internal and Intraport (x1000) 5,703,861								

PORT OF CHICAGO, IL

Section Included: Chicago Harbor, Chicago River, Main and North Branch, Chicago River, South Branch, Chicago Sanitary and Ship Canal, Calumet-Sag Channel and Lake Calumet, IL, Calumet Harbor and River, IL and IN. Project Depth: See Chicago Harbor, Chicago River, Main and North Branch, Chicago River, South Branch, Chicago Sanitary and Ship Canal, Calumet-Sag Channel and Lake Calumet, IL, Calumet Harbor and River, IL and IN.

Comparative Statement of Traffic (thousand short tons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997	24,868	2000	23,929	2003	22,610	2006	25,706
1998	25,979	2001	21,976	2004	24,602		
1999	26,602	2002	20,403	2005	25,821	-	
		1				H	

Commo dite		For	reign	Cana	dian
Commodity	l ota;	Inbound	Outbound	Inbound	Outbound
Total, all commodities	3,165	360	125	1,188	1,492
Total coal 1100 coal & lignite 1200 coal coke	318 176 142				318 176 142
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2340 residual fuel oil 2350 lube oil & greases 2430 asphalt, tar & pitch 2540 petroleum coke	877 877 20 4 4 15 833		34 34 — 34 34	15 15 12 — 3	828 828 8 4 4 15 796
Total chemicals and related products Subtotal other chemicals and related pro 3219 other hydrocarbons	ducts 9	9 9 9	_		
Total crude materials, inedible except fuel Subtotal soil, sand, gravel, rock and stor 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal non-ferrous ores and scrap 4650 aluminum ore Subtotal sulphur, clay and salt 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	s 1,190 ne 244 126 118 127 127 127 30 30 65 65 65 31 31 31 693 693			1,131 184 126 58 127 127 127 30 30 65 65 65 31 31 693 693	60 60

PORT OF CHICAGO, IL, Freight Traffic, 2006 - continued (thousand short tons)

Commodity	Totol	For	eign	Canadian	
Commodity	10(8)	Inbound	Outbound	Inbound	Outbound
Total primary manufactured goods Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec Subtotal primary non-ferrous metal products 5429 smelted prod. nec 5480 fab. metal products	392 389 149 203 14 16 6 3 1 2 2 3 1 2	349 346 116 198 14 16 1 3 1 2		43 43 33 5 	
Total food and farm products Subtotal grain 6344 corn Subtotal oilseeds 6522 soybeans Subtotal processed grain and animal feed 6747 grain mill products	375. 226 226 119 119 30 30		91 91 91 		284 135 135 119 119 30 30
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7230 ships & boats	4 1 2	1			2
Total unknown or not elsewhere classified 9900 unknown or nec	0 . O	0 0			

-			Domestic				
	Commodity	Total	Lake	wise		Internal	
			Receipts	Shipments	Receipts	Shipments	Intraport
Total,	all commodities	22,541	1,687	3,569	8,563	3,022	5,701
Total	coal	5,981		2,986	138	86	2,772
1100 1200	coal & lignite coal coke	5,601 381		2,713 273	114 23	2 85	2,772
Total	petroleum and petroleum products	3,467	17.	159	1,580	1,127	583
2211	casoline	3,407		109	101	1,127	203
2221	kerosene	18				18	
2330	distillate fuel oil	762	6	7	239	365	145
2340	residual fuel oil	271			156	96	19
2350	lube oil & greases	98			90	.8	_
2429	naphtha & solvents	344			104	35	5
2430	asphait, tar & pitch	1858	3	152	240	114 170	304
2640	bydrocarbon & petrol pases, liquefied and paseous	1,035		102	11	475	354
2990	petro. products nec	16		_	3	13	<u> </u>
Total	chemicals and related products	1,504			1,186	274	44
Subi	total fertilizers	34			34		<u> </u>
3110	nitrogenous fert.	30			30		
3190	fert, & mixes nec	3	-		3		
2010	benzone & toluone	1,4/1			1,152	2/4	44
3212	other hydrocarbons	102			40	00 42	28
3220	aicohols	692			500	176	20
3260	organic comp. nec	11		_,	11		
3274	sodium hydroxide	391			391		_
3275	inorg. elem., oxides, & halogen salts	44			44		
3276	metallic salts	111	—-		110	1	1
3279	inorganic chem. nec	5			5	<u> </u>	
3297	chemical additives	3			3	1	_
3288	chem. products nec	3	******		3		
Total Subi	crude materials, Inedible except fuels	6,892	811	57	2,619	1,151	2,253
4161	wood chips	113			113		
4190	forest products nec	2			2		
Sub	otal soil, sand, gravel, rock and stone	4,840	712	30	1,557	320	2,220
4322	limestone	768	712	30	26		
4331	sand & gravel	4,060			1,526	320	2,214
4335	waterway improv. mat	11			_5		6
5ub	lotal iron ore and scrap	946	3	18	79	814	33
4410	iron & steel scrap	134	2	15	10	50	33
Subl	total non-ferrous ores and scrap	70	3		70	/04	
4650	aluminum ore	20			20		
4670	manganese ore	38			38		
4690	non-ferrous ores nec	12			12	—	

				Domestic		
Commodity	Total	Lake	wise		Internal	
		Receipts	Shipments	Receipts	Shipments	Intraport
Subtotal sulphur, clay and sait 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	90 90 22 22 810 810	97	9 9 	80 80 5 713 713	17 17	
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5312 pig iron 5315 ferro alloys 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s plates & sheets 5370 i&s pipe k lube 5390 primary non-ferrous metal products 5422 aluminum 5422 smelted prod. nec 5480 fab. metal products	4,345 1,957 1,957 2,202 738 180 52 548 260 8 414 186 18 414 186 18 45	856 750 750 106 — — — — — 106 — — —	367 301 301 66 64 2 	2,950 768 768 768 1,996 672 180 52 543 260 8 281 186 188 45 124	123 89 89 33 3 1 	49 49
Total food and farm products Subtotal grain 6241 wheat 6344 corn Subtotal oilseeds 6522 6522 soybeans Subtotal vegetable products 6653 6653 vegetable oils Subtotal vegetable products 6653 6653 vegetable eils Subtotal vegetable products 6664 6782 animal feed, prep. Subtotal other agricultural products 6865 6865 molasses Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7600 rubber & plastic pr. 7800 empty containers 7900 manufact, prod. nec	322 182 44 138 14 21 21 31 31 31 74 64 10 80 1 10 18 1	2		89 	231- 182 44 138 13 13 31 31 31 6 - 6 29 1 10 18 10 18	

PORT OF CHICAGO, IL Freight Traffic, 2006 - continued (thousand short tons)

INDIANA HARBOR, IN

Section Included: Approach channel, outer harbor and canal entrance channel to the first E. J. & E. R. R. Bridge: Indiana Harbor Canal, including the Calumet River Branch to Columbus Drive Bridge and the Lake George Branch to 0.2 miles past Indianapolis Blvd. Project Depth: 29 feet in approach channel, 28 feet in harbor basin, 27 feet In canal entrance channel, and 22 feet in remainder of canal to 0.2 miles past Indianapolis Blvd. on Lake George Branch and Columbus Drive on Calumet River Branch.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	16,524	2000	16,187	2003	14,133	2006	16,164
1998	14,910	2001	13,579	2004	18,228		
1999	15,127	2002	13,839	2005	14,120		

Commedity	Total	Foreign	Cana	adian
Contributy	Totai	Inbound	Inbound	Outbound
Total, all commodifies	504	84	397	23
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2540 petroleum coke	23 23 5 17	<u></u>	<u></u>	23 23 5 17
Total crude materials, inedible except fuels Subtotal iron ore and scrap 4410 iron ore Subtotal non-ferrous ores and scrap 4650 aluminum ore 4670 manganese ore Subtotal slag 4860 slag	481 377 377 90 84 5 14 14	84 84 84 	397 377 377 5 5 14 14	

INDIANA HARBOR, IN Freight Traffic, 2006 - continued (thousand short tons)

					Domestic		
	Commodity	Total	Lake	ewise		Internal	
			Receipts	Shipments	Receipts	Shipments	Intrapori
Total, all commodities		15,660	12,918	897	1,180	621	43
Total coal 1100 coal & lignite 1200 coal coke		714 18 696	19 9 10		695 9 686		
Total petroleum and petroleum Subtotal petroleum prod 2211 gasoline gasoline 2330 distillate fuel oil gasoline 2340 residual fuel oil gasoline 2429 naphtha & solvents gasoline 2430 asphalt, tar & pitch gasoline 2540 petroleum coke gago 2990 petro. products nec gasoline	oleum products lucts	992 213 168 40 29 464 66 13	31 31 23 8 	639 639 202 37 2 	306 106 6 27 32 7 7 23 10	174 174 5 44 14 72 39 1	43 43 38 6
Total crude materials, ind Subtotal soil, sand, grav 4322 iimestone 4323 gypsum Subtotal iron ore and so 4410 iron ore 4420 iron & steel scrap Subtotal non-ferrous ore 4650 aluminum ore 4650 aluminum ore 4650 aluminum ore 5ubtotal slag 4860 slag Subtotal other non-metal 4900 non-metal, min, nec	dible except fuels rel, rock and stone crap as and scrap I. min.	13,738 1,743 1,465 278 11,484 11,433 51 6 2 5 485 485 485 19 19	12,869 1,433 1,433 11,437 11,396 22 	238 32 32 	374 278 278 44 28 16 6 6 6 6 41 41 41	261 	
Total primary manufactur Subtotal lime, cement at 5220 cement & concrete Subtotal primary iron ar 5312 pig iron 5330 i&s plates & sheets 5390 primary i&s nec	ed goods nd glass id steel products	215 3 212 9 101 102		21 21 21 21 21	9 9 	186 3 183 183 101 82	

BURNS WATERWAY HARBOR, IN

Section Included: Approach channel, outer harbor, and two harbor arms. Project Depth: 30 feet in approach channel, 28 feet in outer harbor, and 27 feet in the east and west harbor arms.

Comparative Statement of Traffic (thousand short tons)

- [Year	Total	Year	Total	Year	Total	Year	Total
ſ	1997	10,414	2000	9,346	2003	8,069	2006	8,954
	1998	9,006	2001	8,735	2004	9,802		
	1999	7,456	2002	8,621	2005	9,812		

Commodite	T -4-1	For	eign	Cana	adian
Commodity	lotai		Outbound	Inbound	Outbound
Total, all commodities	2,367	860	65	1,256	186
Total coal 1200 coal coke	79 79 79				79 79
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2340 residual fuel oil 2540 petroleum coke	68 68 0 33 35	0 0 0 —	19 19 19	33 33 33	16 16
Total chemicals and related products Subtotal fertilizers 3130 potassic fert. Subtotal other chemicals and related products 3275 inorg. elem., oxides, & halogen salts	125 63 63 63 63 63			125 63 63 63 63 63	<u> </u>
 Total crude materials, Incdible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron cre Subtotal other non-metal, min. 4900 non-metal, min. nec 	1,122 43 15 29 1,021 1,021 58 58			1;093 15 15 1,021 1,021 58 58	29 29 29

BURNS	WATER	WAY	HARBOR,	IN
Freight	Traffic,	2006	- continue	d
- (t	housand	shor	t tons)	

Commedity	Tatal	For	eign	Can	adian
Commonly	rotai	Inbound	Outbound	Inbound	Outbound
Total primary manufactured goods Subtotal lime, cement and glass 5290 misc. mineral prod. Subtotal primary iron and steel products 5312 pig iron 5320 iks primary forms 5330 iks plates & sheets 5370 iks pipe & tube 5390 primary ion necessary 5390 primary is nec Subtotal primary non-ferrous metal products 5429 smelted prid. nec 5480 fab. metal products	846 0 805 3 476 289 21 12 4 4 4 4 0 0 0	837 0 801 475 289 21 12 4 36 0 36	4 4 4	4 	
Total food and farm products Subtotal grain 6344 corn	101 101 101		39 39 39	2003 <u>-</u> 	62 62 62
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7120 electrical machinery 7900 manufac, prod. nec	8 7 0 0	4 3 0 0	4 _4 	0 0 0 0	
Total unknown or not elsewhere classified 9900 unknown or กะc	19 19	19 19			

			Dom	estic	
Commodity	Total	Lake	ewise	Int	emal
		Receipts	Shipments	Receipts	Shipments
Total, all commodities	6,587	5,643	332	506	105
Total coal 1100 coal & lignite 1200 coal coke	91 4 87		80 80	11 4 6	
Total petroleum and petroleum products Subtotal petroleum products 2340 residuat fuel oil 2430 asphail, tar & pitch 2540 petroleum coke 2990 petrol. products nec	50 50 3 7 38 1	5 3 	7	38 38 	
Total chemicals and related products Subtotal fertilizers 3110 nitrogenous fert. 3120 phosphatic fert. 3130 potassic fert. 3190 fert. & mixes nec Subtotal other chemicals and related products 3220 alcohols 3276 metallic selts	98 49 42 5 1 2 49 6 43	43 		55 49 42 5 1 2 6 6 6	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore 4420 iron & steel scrap Subtotal sulphur, clay and salt 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	5,958 898 898 4,721 4,703 16 59 59 217 217 63 63	5,595 898 4,635 4,630 6 62 62	233 67 67 166 166	130 18 6 12 59 59 50 50 50 1 1	
Total primary manufactured goods Subtotal line, cement and glass 5220 cement & concrete 5290 misc. mineral prod. Subtotal primary iron and steel products 5312 pig iron 5320 i&s primary forms 5330 i&s pates & shapes 5360 i&s bars & shapes 5390 primary iwar non-ferrous metal products 5429 smelled prod. nec 5480 fab. metal products	323 3 2 317 118 4 4 170 9 15 3 3 0 0 3		12 	230 3 2 223 106 4 89 8 15 3 3 0 3	82 82 81 1

BURNS WATERWAY HARBOR, IN Freight Traffic, 2006 - continued (thousand short tons)

		Domestic					
Commodity	Total	Lake	ewise	Internal			
		Receipts	Shipments	Receipts	Shipments		
Total food and farm products	55			43	12		
Subtotal grain	12				12		
Subtotal oilseeds	12			20	12		
6590 oilseeds nec	29			29			
Subtotal other agricultural products	14			14			
6861 sugar	14			14			
Total all manufactured equipment, machinery and products 7110 machinery (not elec)	11 11		0 0		11 11		

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	and the first of t	
Harbor or waterway	Commodity	Thousand Short Tons
Flojeci		
CHICAGO HARBOR, IL (INCLUDED IN PORT OF CHICAGO)	2330 distillate fuel oil 2540 petroleum coke 3276 metallic salts 4420 iron & steel scrap 4860 slag 4900 non-metal. min. nec 5315 ferro alloys 5330 i&s plates & sheets	12 26 5 2 3 2 1
	Total Tons(x1000) Total Ton-miles(x1000) Total Trip-ton-miles Internal and Intraport (x1000)	125 125 44,399
MICHIGAN CITY HARBOR, IN	No Commerce Reported	
Non-project		
BUFFINGTON HARBOR, IN	2540 petroleum coke 4322 limestone 4650 aluminum ore Total Tons(x1000)	33 1,426 30
GARY HARBOR, IN	1100 coal & lignite 1200 coal coke 2540 petroleum coke 4322 limestone 4331 sand & gravel 4410 iron ore 4420 iron & steel scrap 4650 aluminum ore 4690 non-ferrous ores nec 4860 slag 5312 pig iron 5320 i&s plates & sheets 5330 i&s plates & sheets 5330 i&s plates & sheets 5360 i&s bars & shapes 5390 primary i&s nec 5480 fab. metal products 7900 manufac. prod. nec Total Tons(x1600)	101 60 28 244 22 8,159 25 57 1 147 40 1 70 1 70 1 87 4 62 9,112

TWO HARBORS (AGATE BAY), MN

Section Included: Entire harbor. Controlling Depth: 28 feet except for a 26 foot area along the east project line. Project Depth: 28 feet in inner basin and 30 feet mean entrance.
Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	13,508 13,223 11,872	2000 2001 2002	13,060 11,875 14,895	2003 2004 2005	13,033 13,473 10,959	2006	13,420

Freight Traffic, 2006 (thousand short tons)

			Canadian		Domestic	
Commodity	•	Grand Total	Outbound	Total	Lake	≥wise
·					Receipts	Shipments
Total, all commodities		13,420	58	13,362	76	13,286
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore Subtotal other non-metal. min. 4900 non-metal. min. nec		13,358 31 31 13,290 13,290 38 38	58 58 58 58	13,300 31 31 13,232 13,232 38 38	76 31 31 26 26 19 19	13,225 13,206 13,206 13,206 19 19
Total all manufactured equipment, machinery and products 7900 manufac. prod. nec	0394	62 62	<u></u>	62 62	88394 <u>44</u> 	62 62

DULUTH-SUPERIOR HARBOR, MN AND WI

Section Included: Superior Bay and its tributaries, St. Louis Bay and St. Louis River, and Allouez Bay. Controlling Depth: 32 feet in lake approaches, diminishing to a minimum of 20 feet in certain inner channels; there are numerous 1-2 foot shoals scattered in portions of the Duluth and Superior Harbor Basins. Project Depth: 32 feet in take approaches; 27 feet in Duluth and Superior Harbor Basins, superior front channel, and in ore-channel routes through north and south channels to D. M. & I. R. R.Y. ore docks; 27 feet in Howards Bay and Allouez Bay; 23 feet in remaining portion of south, upper, and Minnesota channels to Hallet Dock No. 6; and 20 feet from thence to northerly end of Clough Island. Navigation Season: April 3 to January 11.

Comparative Statement of Traffic (thousand short tons)

ç								
	Year	Total	Year	Total	Year	Total	Year	Total
	1997	41.929	2000	41,678	2003	38,295	2006	46,974
	1998	42,443	2001	39,811	2004	45,393		
	199 9	42,297	2002	44,161	2005	44,722		
								-

		Fo	reign	Can	adian		Do	mestic	
Commodity	Grand Total	Inbound	Outbound	Inbound	Outbound	Total	Lak	ewise Shirmente	Internal Internal
Total, all commodities Total coal 1100 coal & lignite 1200 coal coke	46,974 21,534 21,510 23	22	2,165	505 46 23 23	11,771 7,108 7,108	32,511 14,380 14,380	3,753 214 214	28,708 14,115 14,115 	50 50 50
Total chemicals and related products Subtotal other chemicals and related products 3276 metallic salts	32 32 32					32 32 32	32 32 32		=
Total crude materials, inedible except fuels. Subtotal forest products, wood and chips 4170 wood in the rough Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore Subtotal non-ferrous ores and scrap 4690 non-ferrous ores nec Subtotal sulphur, clay and sait 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	22,672 49 3,048 3,048 3,048 18,764 18,764 18,764 152 152 152 196 64 64 64 64 64 399 399		421 	300 16 16 	4,426 33 4,235 4,235 132 132 25 25 	17,525 3,048 3,048 14,299 14,299 14,299 	3,275 3,048 3,048 67 67 67 67 67 64 64 95 95	14,251 14,232 14,232 14,232 	
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5330 l&s plates & sheets Subtotal primary non-ferrous metal products 5480 fab. metal products	404 389 389 15 15 0 0	15 	0 	158 158 158 		232 232 232 ———————————————————————————	232 232 232 — — —		

DULUTH-SUPERIOR HARBOR, MN AND WI Freight Traffic, 2006 - continued (thousand short tons)

		Fo	reign	Car	adian		Do	mestic	
Commodity	Grand Total	Inhound	Outhound	Inhound	Outbound	Total	Lak	ewise	Internal
		·		moounu			Receipts	Shipments	Intraport
Total food and farm products Subtotal grain 6241 wheat 6344 com 6445 cats Subtotal cilseeds 6522 soybeans 6534 flaxseed Subtotal vegetable products 6654 vegetables & prod. Subtotal other agricultural products 6861 sugar 6899 farm products nec	2,322 1,824 1,547 16 261 234 193 41 83 83 83 180 9 172		1,742 1,329 1,313 16 150 109 41 83 83 180 9 172		238 153 153 	342 342 81 261 — — — —		342 342 81 261 — — — — — — — — — —	
Total all manufactured equipment, machiner and products 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7900 manufac. prod. nec	/ 9 8 0 1 0	6 	3 2 0 	0 					

TACONITE HARBOR, MN

NON-CORPS PROJECT

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	8,607	2000	8,505	2003	852	2006	2,089
1998	8,761	2001	2,243	2004	1,209		
1999	8,366	2002	645	2005	2,508		
					ŕ		

Freight Traffic, 2006 (thousand short tons)

Commoditi	Crond Total	Lake	ewise
Contributy	Grano Total	Receipts	Shipments
Total, all commodities	2,089	ि े े 991	1,098
Total coal 1100 coal & lignite	991 991	991 991	
Total crude materials, inedible except fuels Subtotal iron ore and scrap 4410 iron ore	1,098 1,098 1,098		1,098 1,098 1,098

PRESQUE ISLE HARBOR, MI

Section Included: Entire harbor. Controlling and Project Depths: 30 feet in approach and 28 feet in basin. Navigation Season: March 31 to January 21.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	11,201	2000	10,742	2003	8,776	2006	9,074
1998	10,483	2001	9,475	2004	10,134		
1999	9,531	2002	10,592	2005	10,983		
1	0,007		101002	2000	10,000		

		Canadian		Domestic	
Commodity	Grand Total	O. 45	Total	Lake	ewise
		Outboung		Receipts	Shipments
Total, all commodities	9,074	2,136	6,938	2,164	4,774
Total coal 1100 coal & lignite	2,080 2,080	Viii (<u></u> -	2,080 2,080	2,080 2,080	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore	6,994 84 84 6,910 6,910	2,136 2,136 2,136	4,858 84 84 4,774 4,774	84 84 84	4,774 4,774 4,774

MARQUETTE HARBOR, MI

Section Included: Entire harbor. Controlling Depth: 26 feet. Project Depth: 27 feet. Navigation Season: May 14 to November 22.

 Comparative Statement of Traffic (thousand sho 	त tons)	
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Year	Total	Year	Total	Year	Total	Year	Total
1997	689	2000	912	2003	1,206	2006	839
1998	869	2001	976	2004	1,538		
1999	818	2002	923	2005	1,121		

Freight Traffic, 2006 (thousand short tons)

Commodity Grand T	otal	Canadian Inbound	Domestic Lakewise
			Receipts
Total, all commodities	839	62	777
Total coal 1100 coal & lignite	176 176		1 76 176
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone	663 663 663	62 62 62	601 601 601

DRUMMOND ISLAND, MI (INCLUDED IN ST. MARYS RIVER)

Section Included: Private loading dock on St. Marys River at Drummond Island, MI. Controlling Depths: 30 feet to and from Lake Huron; 27.0 feet to and from Lake Superior; 27.0 feet to Lake Superior; 23 feet at dock. Project Depth: See St. Marys River.

Comparative	Statement of T	raffic (thousand	short t	ons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	1,560 1,582 1,732	2000 2001 2002	1,358 1,198 1,221	2003 2004 2005	1,401 1,716 1,460	2006	1,238

Commodity	Grand Total	Canadian Outbound	Domestic Lakewise Shipments
Total, all commodities	1,238	237	1,000
Total crude materials, inedible except fuels	1,238	237	1,000
Subtotal soil, sand, gravel, rock and stone	1,238	237	1,000
4322 limestone	1,216	237	979
4331 sand & gravel	22	—	22

ST. MARYS RIVER, MI

Section Included: Entire length of St. Marys River from Lake Superior to Lake Huron, including American ports of Sault Ste. Marie, Raber, Lime Island, Drummond Island, and Detour, Michigan.

Name of Canal	Project Depth	Controlling Depth
Gros Cap Reefs Point Iroquois Shoal Channel Point Iroquois Anchorage areas Birch Point Course Brush Point Course Point Louise Channel Vidal Shoals Channel Locks and Canal (see report for St. Marys Fall Canal)	30.0 30.0 29.0 28.0-30.0 . 28.0 28.0 28.0	30.0 29.4 21.0 30.0 30.0 28.0 28.0
Bayfield Channel Course 1 Anchorage and maneuver area angle courses 1 and 2 Little Rapids Courses 2 and 3 Lake Nicolet Channel Lake Nicolet Anchorage Middle Neebish Channel West Nebish Channel Lake Munuscong Channel Lake Munuscong Channel	28.0 28.5 27.0 29.0 27.0-28.0 . 27.5-28.5 . 28.0 28.0	
Lime Island Channel Defour Passage Pipe Island Course Watson Reef Course Crab Island	29.0 30.0 29.0 30.0 30.0	

Comparative Statement of Traffic (thousand short tons)

1997 83,822 2000 84,925 2003 71,921 2006 81,29 1998 82,235 2001 74,916 2004 83,122 80,330 2005 79,910 81,315 81,29	Year	Total	Year	Total	Year	Total	Year	Total
1998 82,235 2001 74,916 2004 83,122 1999 81,315 2002 80,330 2005 79,910	1997	83,822	2000	84,925	2003	71,921	2006	81,299
1999 81.315 2002 80.330 2005 79.910	1998	82,235	2001	74,916	2004	83,122		
	1999	81,315	2002	80,330	2005	79,910		

Freight Traffic, 2006 (thousand short tons)

		Foreign		Canadian			
Commodity	Total	Thro	ough	Inhound	Outbound	Thro	ուցի
		Upbound	Downbrid	inoouna	Oatoounu	Upbound	Downbrid
Total, all commodities	25,737	22	2,165	61	237	3,194	20,058
Total coal 1100 coal & lignite 1200 coal coke	9,318 9,240 79					1,590 1,543 47	7,729 7,697 32
Total petroleum and petroleum products Subtotal petroleum products 2430 asphalt, tar & pitch 2540 petroleum coke	199 199 4 195		<u> </u>	<u></u>	<u> </u>	195 195 195	4 4 4
Total chemicals and related products Subtotal fertilizers 3130 potassic fert. Subtotal other chemicals and related products 3274 sodium hydroxide 3276 metallic saits	256 215 215 41 16 25					41 41 16 25	215 215 215
Total crude materials, inedible except fuels Subtotal forest products, wood and chips 4170 wood in the rough 4189 tumber Subtotal soil, sand, gravel, rock and stone 4310 building stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore and scrap 4410 iron ore steel scrap Subtotal sulpfur, clay and sait 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	12,315. 80 2 78 4,478 23 3,604 851 6,709 6,695 14 152 152 307 307 163 163 163 425 425		421 	61 	237 237 237 237	1,183 	10,413 80 2 78 3,386 2,681 705 6,471 6,466 5 132 132 137 137 163 163 163 45
Total primary manufactured goods. Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets Subtotal primary non-ferrous metal products 5480 fab. metal products	1,535 1,482 1,482 53 33 20 0 0	15 	0 			182 182 182 	1,337 1,300 1,300 38 33 5

ST. MARYS RIVER, MI Freight Traffic, 2006 - continued (thousand short tons)

			For	eign		Cana	adian	
	Commodity	Total	Through		In the second	Courts around	Through	
	••••••••••••••••••••••••••••••••••••••		Upbound	Downbnd	προμήα	Outoound	Upbound	Downbrid
wie orweiten		statutat una la speciera			tracto en transmanno		•••••••	allana an ann an an
⊜Total	food and farm products	2,102		1,742				359
Sub	total grain	1,604		1,329			1	274
6241	wheat	1,489		1,313				176
6344	corn	17		16			1	
6445	oats	99					******	99
SUD	total oliseeds	234		150			-	85
0022	soybeans	193		109		—		85
0034		41		41		<u> </u>		
SUD	total vegetable products	83		83				
0004 5b	vegetables & prod,	83		83	_			
Sup	total other agricultural products	180		180				
1000	sugar	9	•	9				
6899	tarm products nec	172		172				
Total	all manufactured equinment machinery and	1	· · · · · · · · · · · · · · · · · · ·					eeree ee n o
produc	ts			0.00000000			4	μ.
7110	machinery (not elec)	8	6	2				
7120	electrical machinery	ŏ		ក				·
7210	vehicles & parts	1	1				_	
7230	ships & boats	2					2	
7900	manufac. prod. nec	õ	0			_		0
Ton-n	aller (x1000)	1 340 600	1 209	130 509	2 900	2 610	145 060	1 050 100
Foreig	n & Canadian	1,040,000	1,556	100,000	2,000	3,015	140,000	1,000,120

			Lakewise	
Commodity	Total	Shipments	<u>Unbound</u>	Downbad
Total, all commodities Total coal 1100 coal & lignite	55,562 12,183 12,183	1,000 	5,076 1,125 1,125	49,486 11,058 11,058
Total chemicals and related products Subtotal other chemicals and related products 3276 metallic salts	32 32 32 32		32 32 32	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal slag 4860 slag Subtotal other non-metal, min, 4900 non-metal, min, nec	42,711 4,461 4,439 22 38,072 38,072 64 64 114	1,000 1,000 979 22 	3,687 3,461 3,461 67 67 64 64 95 95	38,024
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	232 232 232 232		232 232 232	<u> </u>
Total food and farm products Subtotal grain 6241 wheat 6445 oats	342 342 81 261		<u> </u>	342 342 81 261
Total all manufactured equipment, machinery and products 7900 manufac. prod. nec	62 62	2011-110 <u>559</u> —-		62 62
Ton-miles (x1000) Lakewise	3,524,634	32,692	324,868	3,167,074
Tons All Traffic (x1000) 81,299 Ton-miles All Traffic (x1000) 4,874,234				

ST. MARYS FALLS CANAL, MI AND SAULT STE, MARIE, ONTARIO SHIP CANAL, CN (INCLUDED IN ST. MARYS RIVER)

Section Included: American and Canadian Navigation Canals and Locks at St. Marys Fails, Sault Ste. Marie, Ml. and Ontario, Controlling Depths: Sabin Lock 23.1, Davis Lock 23.1, Macarthur Lock 31.0, Poe Lock 32.0 and 16.8 feet Canadian Canal. Project Depth: See St. Marys River. Comparative Statement of Traffic (thousand short tons)

Tota!

77,956 68,179 73,968

		For	eign	Can	adian		Domestic	
Commedity	Grand Total	Thro	bugh	Thr	ngh	Total	Lakev	wise
	orano rola	Upbound	Downbnd	Upbound	Downbrid		Throi Upbound	ugh Downbnd
Total, all commodities	74,218	22	2,165	972	16,193	54,865	5,380	49,486
Total coal 1100 coal & lignite 1200 coal coke	20,044 20,021 23			165 141 23	7,697 7,697	12,183 12,183	1,125 1,125	11,058 11,058 —
Total petroleum and petroleum products Subtotal petroleum products 2540 petroleum coke	195 195 195		_	195 195 195		<u> </u>		
Total chemicals and related products Subtotal fertilizers 3130 potassic fert. Subtotal other chemicals and related products 3274 sodium hydroxide 3276 metallic salts	280 215 215 65 16 49			33 — 33 16 17	215 215 215 	32 	32 	
Total crude materials, inedible except fuels Subtotal forest products, wood and chips 4170 wood in the rough 4189 lumber Subtotal soil, sand, gravel, rock and stone 4322 limestone 4321 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal non-ferrous ores and scrap 4400 non-ferrous ores nec Subtotal sulphur, clay and salt 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal, min. 4900 non-metal. min. nec Total primary manufactured goods	49,521 80 2 78 3,855 3,826 29 44,731 44,731 152 152 152 152 196 196 64 444 444		421 	406 	6,680 80 2 78 6,429 6,429 132 132 25 25 25 14 14	42,014 3,764 3,764 38,072 38,072 38,072 64 64 64 114 114	3,991 3,764 3,764 67 67 67 67 67 64 64 95 95	38,024
Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5330 i&s plates & sheets Subtotal primary non-ferrous metal products 5480 fab. metal products	1,668 1,668 15 15 0 0	15 15 15 0 0		170 170 170	1,266 1,266 	232 232 232 —	232 232 232 —	
Total food and farm products Subtotal grain 3241 wheat 3344 corn 6445 oats Subtotal oilseeds 6522 soybeans 6534 flaxsed Subtotal vegetable products 6654 vegetables & prod. Subtotal other agricultural products 6861 sugar 6899 farm products nec	2;421 1,924 1,547 17 360 234 193 41 83 83 83 180 9 172		1,742 1,329 1,313 16 150 109 41 83 83 180 9 172		336 252 153 99 85 85 	342 342 81 261 		342 342 81 261
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7230 ships & boats 7390 manufac. prod. nec	74 8 0 1 2 62	7 6 1 0	3 0 	2	• 	62 		62 62
Ton-miles (x1000)	4.220.160	1.376	136.422	8.629	901.181	3,172 5	54 962	3 117 58

Year

2003 2004 2005

Total

65,680 74,971 72,979

Year

2006

Total

74,218

Tons All Traffic (x1000) Ton-miles All Traffic (x1000)

Year

1997 1998

1999

Total

79,850 78,296

76,675

Year

2000 2001 2002

GRAYS REEF PASSAGE, MI

Section Included: East channel, 3,000 feet wide and about 2 miles long. Controlling and project depths: 25 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	8,677	2000	12,497	2003	11,290	2006	10,891
1998	10,489	2001	13,010	2004	11,848		
1999	10,586	2002	11,799	2005	11,136		

		Can	adian			Domestic		
Commodity	Grand Total	Thr	ough	Total	Lake	wise	Inte	rnal
Coninidaty	Sianu Tolai	Upbound	Downbrd		Thro	bugh	Thro	ough
	·····	opocano	Downond		Upbound	Downbrid	Upbound	Downbrid
Total, all commodities	10,891		179	10,651	2,666	7,959	Salas de Sa z	a - 19
Total coal 1100 coal & lignite 1200 coal coke	2,437 2,130	9885 <u></u>	2102942 <u>—</u>	2,437 2,130	813 515 209	1,623 1,615	1999 (S. 1997) 	
	000		areo tocalvojite	300	290	•		
products	581			581	443	115		17
Subtotal petroleum products	581			581	443	115	7	17
2211 gasoline 2220 dictillate fuel eit	145			145	106	38		
2340 residual fuel oil	(3			1 13	30	29	1 ((
2429 nanhtha & solvente	· ວ 8) J		ې 8		
2430 asphalt, tar & oitch	216			216	183	33		
2540 petroleum coke	134			134	122	ž		10
Total chemicals and related products Subtotal other chemicals and related	91 91			91 91	91 91			
3276 metallic salts	91			91	91			
Total crude materials, inedible except	6.051	61	174	5.816	1.279	4.537		
fuels		승규는 감독을						
Subtotal soil, sand, gravel, rock and stone	4,720	61	77	4,582	1,184	3,398		
4322 limestone	4.301	l	12	4,289	1,153	3,135		
4323 gypsum	251			251		251		
4331 sand & gravel	168	61	65	43	30	12		
Subtotal iron ore and scrap	716			716	15	701	—-	
4410 iron ore	678		+ -	678	15	664	—·	
4420 iron & steel scrap	38	—		38		38		
Subtotal slag	217		97	120	80	39		
4860 Sidg	217		97	120	80	39		•
4900 non-metal, min, nec	399			399		399		
Total primary manufactured goods	1,731		5	1,726	39	1,683		
Subtotal lime, cement and glass	1,692			1,692	28	1,665		
5210 lime	16			16		16		
Subtotal primary iron and steel	1,676		5	1,676	28	1,649		3
products			-		. –			Ŧ
5312 pig iron	31			31	12	19		
5330 i&s plates & sheets	3			3				3
5390 primary i&s nec	5		5				-	_
Total all manufactured equipment,	0			0			0	
7110 machinery (not elec)	анын сан соо О	9868217625893 		0		00-513298395102555 	0	
Ton-miles (x1000)	1,593,601	1,220	18,087	1,574,294	398,945	1,169,186	1,843	4,320
Tons All Traffic (x1000)		10,891		I			1	

Freight Traffic, 2006 (thousand short tons)

Ton-miles All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)

.



CHARLEVOIX HARBOR, MI

Section Included: Entrance channel and entire area of Round Lake and Lake Charlevoix, including Advance, Boyne City and East Jordan. Controlling Depth: 18 feet. Project Depth: 23 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	1,529 1,281 1,489	2000 2001 2002	1,748 1,533 1,343	2003 2004 2005	1,305 1,463 1,295	2006	1,420

		Canadian	[Domestic	
Commodity	Grand Total	Inhound	Total	Lakewise	
		Indouxe		Receipts	Shipments
Total, all commodities	1,420	97	1,323	169	1,154
Total coal 1100 coal & lignite 1200 coal coke	105 52 53	<u></u>	105 52 53	105 52 53	<u> </u>
Total crude materials, inedible except fuels Subtotal slag 4860 slag	154 1 54 154	97 97 97	56 56 56	56 56 56	<u></u>
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	1,144 1,144 1,144		1,144 1,144 1,144	<u></u>	1,144 1,144 1,144
Total unknown or not elsewhere classified 9900 unknown or nec	17 17		17 17	8 8	9 9

Freight Traffic, 2006 (thousand short tons)

MANISTEE HARBOR, MI

Section Included: Entrance channel and entire area of Manistee Lake, including Filer City. Controlling Depths: 24 feet over the entrance bar, through the outer basin and in the channel between the piers; thence 23 feet in the river channel, narrowing to a minimum width of about 100 to 140 feet to Manistee Lake. Project Depths: 25 feet in the outer basin and 23 feet in the river to Manistee Lake. Navigation season; March 30 to December 31.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	477 435 421	2000 2001 2002	370 1,227 1,457	2003 2004 2005	1,175 940 573	2006	559

	-	Canadian	Domestic
Commodity	Grand Total	labourd	Lakewise
		mbousu	Receipts
Total, all commodities	559	155	404
Total coal 1100 coal & lignite	377 377	<u> </u>	377 377
Total petroleum and petroleum products Subtotal petroleum products 2540 petroleum coke	12 12 12	<u></u>	12 12 12
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal slag 4860 slag Subtotal other non-metal, min. 4900 non-metal, min. nec	170 61 49 13 25 25 83 83 83	46 34 13 25 25 83 83	15 15 15 — — —

LUDINGTON HARBOR, MI

Section Included: Entrance channel and entire area of Pere Marquette Lake. Controlling Depths: 26 feet in the outer entrance bar and 27 feet in the channel to Pere Marquette Lake. Project Depths: Outer entrance channel, 30 feet; Inner entrance channel, 29.5 feet; channel to Pere Marquette Lake, 29 feet; north and south mooring basins, 18 feet. Navigation season: April 2 to December 31.

Comparative Statement of Traffic (th	nousand short tons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997	864	2000	512	2003	548	2006	618
1998	1,075	2001	631	2004	453		
1999	493	2002	492	2005	628		

Freight Traffic, 2006 (thousand short tons)

		Can	adian		Dom	nestic	
Commodity	Grand Total	Inhound	Outbound	Total	Lake	ewise	Internal
		IIIDOUIIU			Receipts	Shipments	Shipments
Total, all commodities	618	98	155	364	123	139	102
Total chemicals and related products Subtotal other chemicals and related products 3276 metallic salts	396 396 396		155 155 155	241 241 241 241		139 139 139	102 102 102
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal slag 4860 slag	205 141 100 40 64 64	98 61 21 40 37 37		107 80 80 27 27	107 80 80 27 27 27		
Total primary manufactured goods Subtotal lime, cement and glass 5210 lime	16 16 16			16 16 16	16 16 16		14 <u>500004-44</u> , —

MUSKEGON HARBOR, MI

Section Included: Entrance channel and entire area of Muskegon Lake. Controlling Depths: 29.0 feet through the outer portion of project and 27 feet in channel to Muskegon Lake. Project Depth: Varying from 29.0 feet at harbor entrance to 28 feet between breakwaters and 27 feet in inner channel. Navigation season: April 7 to December 31.

Comparative Statement of Traffic (thousand short ton	s)
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Үеаг	Totai	Year	Total	Уеаг	Total	Year	Total
1997 1998 1999	2,061 1,936 1,925	2000 2001 2002	2,435 2,324 2,187	2003 2004 2005	2,545 2,684 2,063	2006	2,230

		Canadian		Domestic	
Commodity	Grand Total	Inhound	Total	Lake	wise
		пвоина		Receipts	Shipments
Total, all commodities	2,230 1,407	226	2,003	1,974 1,407	30
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 Subtotal sulphur, clay and salt 4782 Subtotal slag 4600 slag Subtotal other non-metal. min. 4900 non-metal. min.	695 424 390 34 9 9 90 90 90 171 171	226 55 21 34 — — 171 171	1,407 469 369 369 9 9 9 90 90 90	1,407 347 347 9 9 90 90 90	23 23 23
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	128 128 128		128 128 128	121 121 121	7 7 7

GRAND HAVEN HARBOR AND GRAND RIVER, MI

Section Included: Entire harbor, including Ferrysburg and Spring Lake; and Grand River from Grand Trunk RY. Bridge at Ferrysburg to Bass River about 15 miles. Controlling Depths: 22 feet in entrance channel; 21 feet to the mouth of the south channel; 21 feet to the sag; 20 feet to Grand Trunk RY. Bridge at Ferrysburg; 18 feet in the Turning Basin; 17 feet in channel to Spring Lake; thence 8 feet to mile 17.0 and 5 feet to the end of the project. Project Depths: 23 feet in entrance channel; 21 feet to Ferrysburg; 18 feet in channel to Spring Lake; 8 feet to mouth of Bass River. Navigation season: March 1 to December 31.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	988 1,014 1,110	2000 2001 2002	1,555 1,794 883	2003 2004 2005	1,093 1,757 1,475	2006	988

Freight Traffic, 2006 (thousand short tons)

		Can	adian	Domestic		
Commodity	Grand Total	Inbound	Outhound	Total	Lake	ewise
		moound	Casoana		Receipts	Shipments
Total, all commodities	988	234		750	651	99
Total coal 1100 coal & lignite	127 127			127 127	127 127	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4420 iron & steel scrap Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	776 492 311 181 3 3 172 172 108 108	211 102 22 81 108 108	3 3 	562 390 289 100 172 172 	465 310 289 20 	97 80 80 10 17 17 17
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	85 85 85	23 23 23		61 61 61	59 59 59	2 2 2

HOLLAND HARBOR, MI

Section Included: Controlling Depths: Entrance channel - 23 feet decreasing to 20 feet at the outer end of the inner pier; thence a controlling depth of 19 feet for a channel through Lake Macatawa to the wharves in Holland, Michigan, a Turning Basin 18 feet deep, a channel in Black River 21 feet deep and a settling basin with a project depth of 17 feet above the Black River channel to the State Street Bridge. Navigation season: March 13 to December 31.

Comparative Statement of Traffic (thousand short tons)

Year Total Year Total Year	Total	Year	Total
1997 398 2000 389 2003	560	2006	453
1998 476 2001 443 2004	544		
1999 453 2002 621 2005	634		

		Canadian	Domestic			
Commodity	Grand Total	Outbound	Total	Lake	ewise	
-				Receipts	Shipments	
Total, all commodities	453	5	448	442	6	
Total coal 1100 coal & lignite	211 211	1979 - CAR 	211 211	211 211		
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4420 iron & steel scrap Subtotal slag 4860 slag Subtotal other non-metal, min. 4900 non-metal, min. nec	220 188 188 11 11 11 11 11 11	5 5 5 1	215 188 188 6 6 11 11 11 11	209 188 188 	6 6 6 	
Total primary manufactured goods Subtotal lime, cement and glass 5210 lime	22 22 22	****** <u>-</u>	22 22 22	22 22 22		

ST. JOSEPH HARBOR, MI

Section Included: Entrance channel and lower portion of St. Joseph River to and including Benton Harbor Canal. Controlling Depth: 24 feet at entrance; 21 feet between entrance piers and in the river to the mouth of the Paw Paw River; with miscellaneous of shoaling along the channel limits; 17 feet in the Turning Basin; and 16 feet at Benton Harbor Canal. Project Depths: 24 feet at entrance, and 21 feet in channel and river to the mouth of the Paw Paw River; 18 feet in turning basins and the Benton Harbor Canal. Navigation season; March 7 to December 31.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Үеаг	Total	Year	Total	Year	Total
 1997 1998 1999	609 747 510	2000 2001 2002	735 1,015 602	2003 2004 2005	738 748 531	2006	541

Freight Traffic, 2006 (thousand short tons)

		Canadian	Domestic		
Commodity	Grand Total	Inhound	Total	Lake	wise
		indodina		Receipts	Shipments
Total, all commodities	541	.C.(497	496	2.
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel	299 256 181 64	44	256 256 181 64	254 254 181 64	2 2
4335 waterway improv. mat Subtotal other non-metal. min. 4900 non-metal. min. nec	11 44 44	44 44	11 	9	2
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	242 242 242 242		242 242 242	242 242 242 242	

MILWAUKEE HARBOR, WI

Section Included: Lake Approach Channel, outer harbor, Milwaukee River to Buffalo Street, Iower 2 miles of Manomonee River, Iower 2 miles of Kinnickinnic River and South Menomonee and Burnham Canals. Controlling and project depths: 30 feet in Lake Approach Channel, 28 feet in the entrance channel and the south outer harbor, 21 feet in the north outer harbor, 27 feet in the Kinnickinnic River to the Chicago and North Western Railway Bridge at mile 1.0, thence 21 feet to South Kinnickinnic Avenue Bridge; 27 feet in Milwaukee River to the Chicago and North Western Railway Bridge at mile 0.21, thence 21 feet to South Street Bridge; 21 feet in Menomonee River and South Menomonee and Burham Canals.

Comparative Statement of Traffic (thousand short tons)

Year	Totał	Year	Total	Year	Total	Year	Total
1997 1998 1999	3,265 3,108 3,531	2000 2001 2002	3,539 3,373 3,127	2003 2004 2005	3,002 3,156 3,805	2006	4,007

Ca	Tatal	For	eign	Can	adian
Commodaly	TUtal	Inbound	Outbound	Inbound	Outbound
Total, all commodities	1,419	241	323	681	174
Total chemicals and related products Subtotal other chemicals and related products 3275 inorg. elem., oxides, & halogen salls	0 0 0	0 0 0			2010-1011-001-001-001-001-00 2010-001-001-001-001-00-00-00-00-00-00-00
Total crude materials, inedible except fuels Subtotal other non-metal. min. 4900 non-metal. min. nec	688 688 688	7 7 7		681 681 681	
Total primary manufactured goods Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary i&s nec Subtotal primary non-ferrous metal products 5429 smelled prod. nec 5480 fab. metal products	224 201 81 97 22 0 0 0 22 1 21	223 201 81 97 22 0 0 21 1 20	- - 		
Total food and farm products Subtotal grain 6344 corn Subtotal oilseeds 6522 soybeans Subtotal processed grain and animal feed 6747 grain mill products	495 323 323 160 160 12 12		321 267 267 42 42 42 12 12		174 56 56 118 118
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7210 vehicles & parts 7230 ships & boats 7600 rubber & plastic pr. 7900 manufac, prod, nec	11 11 0 0 0 0 0 0	10 10 0 0 0 0	1		

MILWAUKEE HARBOR, WI Freight Traffic, 2006 - continued (thousand short tons)

	Commodity	Total	For	eign	Can	adian
	Commonly	Total	Inbound	Outbound	Inbound	Outbound
Total 9900	unknown or not elsewhere classified	<mark>1</mark> 1	1 1			

				Domestic		
Commodity	Total	Lake	wise		Internal	
· · · · · · · · · · · · · · · · · · ·		Receipts	Shipments	Receipts	Shipments	Intraport
Total, all commodities	2,589	2,545	14	2	26	2
Total coal 1100 coal & lignite	1,108 1,108	1,108 1,108	Page 100 (00.80) /	19.000 - 19.000 - 1999 1999 - 1999 - 1999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999		
Total petroleum and petroleum products Subtotal petroleum products 2430 asphalt, tar & pitch	183 183 183	183 183 183				
Total crude materials, inedible-except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4324 waterway improv. mat Subtotal slag subtotal slag 4860 slag Subtotal other non-metal. min. 4900 4900 non-metal. min. nec	257 86 79 7 14 14 156 156	253 82 79 3 14 14 156 156	4 _4 			
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5330 i&s plates & sheels 5360 i&s bars & shapes 5390 primary non-ferrous metal products 5480 fab. metal products	994 992 992 1 0 0 0 1 1 1 1	992 992 992 	0 	2		0 0 0 0
Total food and farm products Subtotal grain 6241 wheat 6344 corn Subtotal oilseeds 6522 soybeans	28 14 3 11 14 14		2 2 2		26 14 3 11 12 12	
Total all manufactured equipment, machinery and products 7110 machinery (not elec)	18 18	8 8	8 8	-	1997 - 199 <u>1 - 1</u> 99 	2 2

MANITOWOC HARBOR, WI

Section Included: Outer harbor and lower 2 miles of river. Controlling and project depths: 21 feet in the Lake Approach Channel, the outer harbor, and in the river channel to the Third Railway Bridge.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Үеаг	Total	Year	Total	Year	Total
1997 1998 1999	407 414 379	2000 2001 2002	287 408 421	2003 2004 2005	383 282 428	2006	338

Composity	Crand Total	Lake	wise
Commodity	Giano rotal	Receipts	Shipments
Total, all commodities	338	309	30
Total coal 1100 coal & lignite	90 90	90 90	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4335 waterway improv. mat	41 41 11 30	11 11 11 	30 30 30 30
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	208 208 208 208	208 208 208	

GREEN BAY HARBOR, WI

Section Included: Outer channel, channel through the city of Green Bay and upper river channel to city of De Pere. Controlling and project depths: 26 feet in outer channel to Grassy Island; 24 feet in the entrance channel and river channel to a point 1,700 feet upstream from the C. & N. W. R. R. Bridge; 24 feet in the turning basin at the mouth of the East River; 20 feet in the turning basin above the C. & N. W. R. R. Bridge; 18 feet in the upper river channel and turning basin at the city of De Pere.

Comparative Statement of Traffic (thousand short tons)

.

Year	Total	Year	Total	Year	Tota!	Year	Total
1997 1998 1999	2,130 2,353 2,333	2000 2001 2002	1,551 2,242 2,078	2003 2004 2005	2,084 2,361 2,728	2006	2,618

		Foreign	Canadian	-	Domestic	
Commodity	Grand Total	Inbound	Inbound	Total	Lake Receipts	wise Shipments
Total, all commodities	2,618	33	454	2,131	2,103	28
Total coal 1100 coal & lignite	1,028 1,028		-1-12 (1997) -1-12 (1997) 	1 ,028 1,028	1,028 1,028	
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2430 asphalt, tar & pitch	90 90 83 7		83 83 83 —	7 7 7	7 7 7	
Total chemicals and related products Subtotal other chemicals and related products 3276 metallic salts	5 5 5			5 5 5	5 5 5	
 Total crude materials, inedible except fuels Subtotal forest products, wood and chips 4189 lumber Subtotal pulp and waste paper 4225 pulp & waste paper Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal other non-metal. min. 4900 non-metal. min. nec 	1,022 17 16 16 608 608 380 380	33 17 16 16 16 — —	340 	648 	625 585 585 585 40 40	23
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5312 pig iron Subtotal primary non-ferrous metal products 5422 aluminum	473 416 416 57 57 0 0	0 	30 30 30	443 416 416 27 27 27 	438 411 411 27 27 	5 5 1 1
Total all manufactured equipment, machinery and products 7110 machinery (not elec)	0 0	21 - 12 - 12 		2542 (1975) 10 7 0	0 0	

ALPENA HARBOR, MI

Section Included: Lower 4,000 feet of river and private harbors north of mouth of Thunder Bay River. Controlling Depth: 21 feet in the bay section; 17 feet in river; 15 feet in turning basin. Project Depths: channel 21 feet deep from that depth in Thunder Bay to a point 2,500 feet lakeward of the lighthouse; thence 18.5 feet in river narrowing to 100-foot width at a point 700 feet upstream from the lighthouse; thence 100 feet wide and 18.5 feet deep to the Second Ave. Bridge; thence 18.5 feet deep and 75 feet wide to the upper limits of the project; a turning tasin 15 feet deep by 3.7 acres at the upper end of project; and a turning basin 18.5 feet deep at the river mouth. Navigation season: March 15 to December 17.

Comparative Statement of Traffic ((thousand short tons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	2,901 3,078 3,947	2000 2001 2002	3,405 3,268 3,218	2003 2004 2005	3,000 3,275 3,229	2006	3,330

Freight Traffic, 2006 (thousand short tons)

		Can	adian	Domestic		
Commodity	Grand Total	Inhound	Outbound	Total	Lake	ewise
	· ·- · · · · · · · · · · · · · · · · ·		Outoootio		Receipts	Shipments
Total, all commodities	-3,330	182	163	2,985	495	2,490
Total coal 1100 coal & lignite 1200 coal coke	39 6 259 137			396 259 137	396 259 137	
Total crude materials; inedible except fuels. Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore Subtotal stag 4860 slag Subtotal other non-metal, min. 4900 non-metal, min. nec	308 70 70 15 15 120 120 120 120 120 103	179 10 10 66 66 103 103	41 41 41 	88 18 15 15 55 55	88 18 15 15 55 55	
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete	2,626 2,626 2,626	3 3 3	122 122 122	2,501 2,501 2,501	11 11 11	2,490 2,490 2,490

MENOMINEE HARBOR AND RIVER, MI AND WI

Section Included: Entrance channel and lower 2.0 miles of Menominee River. Controlling and project depths: 20 feet controlling depth, 23 feet project depth in the Approach Channel; 18 feet controlling depth, 21 feet project depth in the entrance and river channels, 19 feet in the river adjacent to the Marinette Marine Corp., 12 feet to the end of the project, and 18.5 feet controlling depth, 21 feet project depth in the Turning Basin.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	260 388 165	2000 2001 2002	51 196 429	2003 2004 2005	356 401 342	2006	411

		Foreign	Canadian		Domestic	
Commodity	Grand Total	Inbound	Inbound	Total	Lakev	wise
			mooding		Receipts	Shipments
Total, all commodities	411	185	138		85	3
Total coal 1100 coal & lignite	31 31		olariyan nakara nakara Ariya katara ariya T	31 31	31 31	****** <u>-</u>
Total crude materials, inedible except fuels Subtotal forest products, wood and chips 4170 wood in the rough 4189 lumber Subtotal pulp and waste paper 4225 pulp & waste paper Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4420 iron & steel scrap Subtotal other non-metal. min. 4900 non-metal. min. nec	171 10 3 7 106 106 106 17 17 3 3 3 3 3 3 3 3 3 5	114 9 9 1 7 106 106 	37 2 2 	19 	17 17 17 17	3
Total primary manufactured goods Subtotal primary iron and steel products 5312 pig iron 5360 i&s bars & shapes	209 209 209 0	71 71 71 —	101 101 101 —-	37 37 37 37 0	37 37 37 0	<u> </u>

SAGINAW RIVER, MI

Section Included: From the mouth of the river up to and including Sagainaw, Michigan. Controlling Depths: 27 feet from the 25 foot contour in Saginaw Bay to 26 feet at the river mouth, 4 feet miscellaneous shoaling along channel limits; thence 24 feet to the Grand Trunk R.R. Bridge; thence 22 feet to the C&O R.R. Bridge in Saginaw, Michigan; thence 14 feet to the Holland Street Bridge; thence about 7 feet over a width of 100 feet upstream to Green Point (this section not maintained). Controlling depths in turning basins are: Essexville - 23 feet form the deep water in Saginaw; thence 16.5 feet to the upstream limits at Green Point. 20 net 25 feet to the Grand Trunk R.R. Bridge; thence 28 feet in the Airport turning basin; 20 feet in the Sixth Street - 20 feet; basin and 15 feet in Trunk R.R. Bridge; thence 22 feet to the C&O R.R. Bridge in Saginaw; thence 16.5 feet to the upstream limits at Green Point. 20 and 25 feet in the Sixth Street Turning Basin; 20 feet in the Sixth Street Turning Basin and 15 feet in the Turning Basin; 20 feet in the Sixth Street Turning Basin and 15 feet in the Turning Basin at the 19 mile point. Navigation season: March 24 to December 31.

Comparative	Statement of	f Traffic	(thousand	short	tons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	5,730 5,609 5,290	2000 2001 2002	4,609 5,839 5,819	2003 2004 2005	5,404 5,516 5,625	2006	4,160

Freight Traffic, 2006 (thousand short tons)

			Foreign	Can	adian		Domestic	
	Commodity	Grand Total				Total	Lakewise	Internal
<u> </u>			Inbound	Inbound	Outbound		Receipts	Intra Downbnd
Total,	all commodities	4,160	6	1,136	32	2,985	2,952	34
Total 1100	coal coal & lignite	295 295		n		295 295	295 295	
Total Sub 2211 2340 2430	petroleum and petroleum products total petroleum products gasoline residual fuel oil asphalt, tar & pitch	208 208 32 36 140		12 12 12 12	32 32 32 	163 163 23 140	163 163 23 140	
Total Sub 3130 Sub 3276	chemicals and related products total fertilizers potassic fert. total other chemicals and related products metallic salts	92 33 33 58 58		33 33 33 		58 58 58	58 58 58	
Total Sub 4322 4323 4331 Sub 4860 Sub 4900	crude materials, inedible except fuels total soil, sand, gravel, rock and stone limestone gypsum sand & gravel total slag slag total other non-metal. min. non-metal. min. nec	2,984 2,650 2,538 8 104 68 68 68 265 265		614 316 230 8 77 45 45 253 253		2,369 2,334 2,308 27 23 23 23 12 12	2,336 2,313 2,286 27 23 23 23 	34 21 21 — — 12 12 12
Total Sub 5210 5220	primary manufactured goods total lime, cement and glass lime cement & concrete	576 576 11 566		476 476 — 476		100 100 11 89	100 100 11 89	
Total Sub 6861	food and farm products total other agricultural products sugar	6 6 6 6	6 6 6			<u></u>	12.) - <u>VOIA <u>2004</u> </u>	

Tons All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)

4,160 243

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ST. CLAIR RIVER, MI

Section Included: Entire length of St. Clair River and Black River up to Washington Avenue in Port Huron. Controlling Depths: 27 to 30 feet in St. Clair River at Port Huron and 20 feet in Black River.

Comparative Statement of Traffic (thousand short tons)								
Year	Total	Year	Totai	Year	Total	Үеаг	Total	
1997 1998 1999	79,777 84,238 79,910	2000 2001 2002	85,078 79,143 79,341	2003 2004 2005	68,067 78,241 77,321	2006	77,481	

1997 1998 1999	79,777 84,238 79,910	2000 2001 2002	85,078 79,143 79,341	2003 2004 2005	68,067 78,241 77,321	2006	77,481
		Fre	ight Traffic, 20	06 (thousand :	short tons)		

		For	eign		Canadian	
Commodity	Total	Thr	bugh Downbad	Inbound	Thro	ugh Dewebed
	•••••• •,	oppound_	DOWIDING		Oppound	Downbhu
Total, all commodities	36,066	1,793	2,722	629	9,438	21,484
Total coal	12,928			48	4,725	8,155
1100 coal & lignite 1200 coal coke	12,558			48	4,638	7,873
					01	202
Subtotal crude petroleum products	1,430 115	0.000	53		242	1,135
2100 crude petroleum	115				_	115
Subtotal petroleum products 2211 aasoline	1,315	0	53		242 38	1,020
2330 distillate fuel oil	254	0			148	106
2340 residual fuel oli 2350 lube oil & greases	156 4				50	106
2430 asphali, tar & pitch	19					_19
2540 petroieum coxe	811		53		6	752
Total chemicals and related products	351	9.000			139	202
3130 potassic fert.	119	_				119
Subtotal other chemicals and related products	232	9			139	83
3212 benzene & toluene	78	_		_	60	18
3219 other hydrocarbons 3260 organic comp. nec	9	9				
3274 sodium hydroxide	16				16	_
3275 inorg. elem., oxides, & halogen salts 3276 metallic salts	63 56	0		_	63	56
		201000		E CA	9 540	0 94 5
Subtotal forest products, wood and chips	104	239	464 :			
4170 wood in the rough	1	1				78
Subtotal pulp and waste paper	102	122				
4225 pulp & waste paper	122	122	43	591	280	A 146
4310 building stone	17	_	43		203	17
4322 limestone 4323 gypsum	4,003			460	194 8	3,349
4331 sand & gravel	1,030		43	121	87	779
Subtotal iron ore and scrap 4410 iron ore	6,729 6,724		230 230		1,971 1.971	4,528 4,523
4420 iron & steel scrap	5			-		5
4650 aluminum ore	202	84	21		125	132
4670 manganese ore	5	• •	····-		5	122
Subtotal sulphur, clay and salt	272	_	170	_	15	87
4782 clay & refrac. mat.	272		170		15	87 69
4860 slag	333			-	265	69
Subtotal other non-metal, min, 4900 non-metal, min, nec	1,664 1,664				882 882	775 775
	0.550		u autoriatoriji	ay na ƙasartar s		
Subtotal lime, cement and glass	3,552 1,910	0			634	1,277
5220 cement & concrete	1,910				634	1,276
5290 misc. mineral prod.	ŏ	0				_
Subtotal primary iron and steel products	1,574 205	1,434			141 134	
5320 i&s primary forms	674	672		—	1	
5330 liks plates & sheets 5360 liks bars & shapes	599 58	599 58		_	_	_
5370 i&s pipe & tube	28	28			یر در در ا	
Subtotal primary los nec Subtotal primary non-ferrous metal products	10 67	61		_	5	
5422 aluminum	1	Ő			_	1
5425 smelled prod. nec 5480 fab. metal products	2 65	2 60				
·					-	

ST. CLAIR RIVER, MI Freight Traffic, 2006 - continued (thousand short tons)

		For	reign	Canadian		
Commodity	Total	Thr	ough	Inhound	Three	bugh
		Upbound	Downbrid	lisbound	Upbound*	Downond
Total food and farm products Subtotal grain 6241 wheat 6344 corn 6445 oats Subtotal oilseeds 6522 soybeans 6534 flaxseed Subtotal vegetable products 6654 vegetables & prod. Subtotal processed grain and animal feed Subtotal processed grain and animal feed Subtotal other agricultural products Subtotal other agricultural products	3,096 2,271 1,503 669 99 513 472 41 83 83 83 83 42 42 42	6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2,193 1,726 1,313 413 		3 3 3 	894 542 190 253 99 321 321
6809 farm producte nac	15	6	9			
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7120 electrical machinery 7210 vehicles & parts 7210 ships & boats 7400 manufac. wood prod. 7600 rubber & plastic pr. 7900 manufac. prod. nec	44 35 8 1 0 0 0	23 21 0 1 0 1 0	8 7 0 		7 0 0 0 0	7 0 6 0
Total unknown or not elsewhere classified 9900 unknown or nec	20 20	20 20				0 0
Ton-miles (x1000) Foreign & Canadian	1,389,239	69,916	106,159	7,198	368,100	837,866

					Dom	estic			
	Commodify	Total		Lake	wise		Internal		
	Commodiky	i otar	Receipts	Shinmonte -	Thro	bugh	Thro	bugh	
			110001010	Crapments	Upbound	Downbnd	Upbound	Downbrid	
Total,	all commodities	41,415	9,578	29	3,514	28,267	19	7	
Total 1100 1200	coal coal & lignite coal coke	12,460 12,291 169	ි.දි 8,296 8,296 —	29 29	2,470 2,462 8	1,665 1,504 161		<u></u>	
Total Sub 2211 2330 2340 2429 2430 2540	petroleum and petroleum products total petroleum products gasoline distillate fuel oil residual fuel oi! naphiha & solvents asphalt, tar & pitch petroleum coke	448 448 79 101 27 8 77 157	29 29 29 29 		195 195 79 45 27 8 33 3	201 201 14 	17 17 7 	7 7 	
Total Sub 3276	chemicals and related products total other chemicals and related products metallic salts	0 0 0 0				0 0 0		 	
Total Sub 4322 4323 4331 Sub 4410 4420 Sub 4860 Sub 4900	crude materials, inedible except fuels total soil, sand, gravel, rock and stone limestone gypsum sand & gravel total iron ore and scrap iron ore iron & steel scrap total slag slag total other non-metal. min. pon-metal. min. nec	27,619 7,797 7,273 249 275 19,191 19,154 38 136 136 494 494	1,254 1,238 1,238 -		830) 132 132 132 84 46 38 120 120 120 494 494	25,535 6,427 5,903 249 275 19,108 19,108 			
Total Subi 5210 5220 Subi 5312 5330 Subi 5480	primary manufactured goods total lime, cement and glass lime cement & concrete total primary iron and steel products pig iron i&s plates & sheets total primary non-ferrous metal products fab. metal products	546 512 6 507 33 31 31 3 0 0			19 	524 512 6 507 12 12 12 	3 3 		
Total Subi 6241 6445	food and farm products total grain wheat oats	342 342 81 261				342 342 81 261			

ST. CLAIR RIVER, MI Freight Traffic, 2006 - continued (thousand short tons)

				Dom			
Commodity	Tatal		Lake	wise	Inte	ernal	
Conanocity	TOTAL	Bassista Shinmanta Through		xugh	Through		
		Receipts	Subments	Upbound	Downbnd	Upbound	Downbrid
Total all manufactured equipment, machinery an products	id 0						0
7110 machinery (not elec)	0	•			—		0
Ton-miles (x1000) Domestic	1,410,654	169,419	719	137,047	1,102,432	757	280
Tons All Traffic (x1000) Ton-miles All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)	77,481 2,799,893 20,429						

*Includes 30 tons of Canadian upbound through in-transits.

MARYSVILLE, MI (INCLUDED IN ST. CLAIR RIVER)

Section Included: West bank of St. Clair River at Marysville, MI. Controlling Depth: 27.4 feet. Project Depth: at low-water datum; 27.4 feet to and from Lake Huron; 27.1 feet downbound to Lake St. Clair.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Totat	Year	Total
1997	1,142	2000	1,227	2003	1,213	2006	1,316
1998	1,282	2001	1,503	2004	1,362		
1999	1,357	2002	1,323	2005	1,259		

Freight Traffic, 2006 (thousand short tons)

		Canadian	Domestic
Commodity G	irand Total	Inpond	Lakewise Receipts
Total, all commodities	1,316	530	786
Total coal 1100 coal & lignite	211 211	48 48	163 163
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal slag 4860 slag	1,105 1,089 969 121 16 16	482 482 361 121 —-	623 607 607 16 16

ST. CLAIR, MI (INCLUDED IN ST. CLAIR RIVER)

Section Included: West bank of St. Clair River at St. Clair, MI Controlling Depth: 27.3 feet. Project Depth: 27.3 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Үеаг	Total	Year	Total	Year	Total
1997 1998 1999	5,699 5,533 5,326	2000 2001 2002	5,553 4,818 4,506	2003 2004 2005	4,254 5,281 4,151	2006	4,901
	· ·				1		1

Commodity	Crond Total	Lake	ewise
Соланораку	Giano Total	Receipts	Shipments
Total, all commodities	4,901	4,873	29
Total coal 1100 coal & lignite	4,873 4,873	4,844 4,844	29 29
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil	29 29 29	29 29 29	

MARINE CITY, MI (INCLUDED IN ST. CLAIR RIVER)

Comparative Statement of Traffic (thousand short ions)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998	4,001 4,252	2000 2001	3,987 3,896	2003 2004	3,585	2006	4,019
1999	3,652	2002	3,713	2005	4,225		

Freight Traffic, 2006 (thousand short tons)

Commodity Grand Total	Canadian Inbound	Domestic Lakewise Receipts
Total, all commodities 4,019	99	3,920
Total coal 3,289 1100 coal & lignite 3,289		3,289 3,289
Total crude materials, inedible except fuels 730 Subtotal soil, sand, gravel, rock and stone 730 4322 limestone 730	99 99 99	631 631 631

CHANNELS IN LAKE ST. CLAIR

Section Included: Improved ship channels connecting St. Clair River and Detroit River across Lake St. Clair, entrance channels to mouth of Clinton River and the Canadian channel to the mouth of the Thames River. Controlling Depths: 27.0 feet in the main channel with 8 feet in channel to Clinton River. Project Depths: 27.5 feet in main channel and 8 feet in Clinton River channel.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Totai	Year	Total	Year	Total
1997 1998 1999	68,211 71,970 67,912	2000 2001 2002	73,490 68,035 68,697	2003 2004 2005	58,004 66,558 66,767	2006	67,007

Commodity	Total	Foreign		Canadian		
		Upbound	Downond	Unbound*	Downbrid	
Total, all commodifies	34,460	1,793	2,722	9,248	20,698	
Total coal 1100 coal & lignite 1200 coal coke	12,723 12,354 370		<u></u>	4,674 4,587 87	8,049 7,767 282	
Total petroleum and petroleum products. Subtotal crude petroleum 2100 crude petroleum Subtotal petroleum products 2211 gasoline 2330 distiliate fuel oil 2340 residual fuel oil 2430 asphalt, tar & pitch 2540 petroleum coke	1,187 115 115 1,072 38 \$16 107 4 808	0 0 0	53 53 53 53 53	69 69 38 23 5 	1,065 115 115 950 92 102 4 752	
Total chemicals and related products Subtotal fertilizers 3130 potassic fert. Subtotal other chemicals and related products 3211 acyclic hydrocarbons 3212 benzene & toluene 3219 other hydrocarbons 3260 organic comp, nec 3274 sodium hydroxide 3275 inorg, elem., oxides, & halogen salts 3276 metallic salts	351 119 119 232 3 78 9 6 16 16 63 56	9 		139 	202 119 119 83 3 18 	
Total crude materials, inedible except fuels Subtotal forest products, wood and chips 4170 wood in the rough 4189 lumber Subtotal pulp and waste paper 4225 pulp & waste paper Subtotal soil, sand, gravel, rock and stone 4322 limestone 4323 gypsum 4331 sand & gravel Subtotal iron ore and scrap 4410 iron & steel scrap	13,487 104 1 102 122 122 3,901 3,059 8 834 6,729 6,724 5	239 26 1 24 122 122 122 	464 	3,580 	9,204 78 78 3,535 2,832 704 4,528 4,528 5	
• ···		For	eign	Canadian		
--	--	--	------------------------------------	---	--	--
Commodity	Total	Thre	Downhad	Thre Upbound*	Downhad	
Subtotal non-ferrous ores and scrap 4650 aluminum ore 4670 manganese ore 4690 non-ferrous ores nec Subtotal sulphur, clay and salt 4782 clay & refrac. mat. Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	362 202 154 272 272 333 333 1,664 1,664	84 84 	21 21 170 170 	125 118 5 1 15 265 265 265 882 882	132 132 132 87 87 69 69 775 775	
Total primary-manufactured goods Subtotal lime, cement and glass 5220 cement & concrete 5240 glass & glass prod. 5290 misc. mineral prod. Subtotal primary iron and steel products 5312 pig iron 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary non-ferrous metal products 5422 aluminum 5429 smetted prod. nec 5429 fab. metal products	3,552 1,910 1,910 0 0 1,574 205 674 599 58 28 28 10 67 599 58 28 28 10 67 58 58 58 58 58 58 58 58 58 58 58 58 58	1,495 0 0 1,434 71 672 599 58 28 28 28 5 61 0 2 2 60	5 	775 634 634 0 141 134 1 	1,277 1,276 1,276 	
Total food and farm products Subtotal grain 6241 wheat 6344 corn 6445 pats Subtotal oilseeds 6522 6522 soybeans 6534 flaxseed Subtotal vegetable products 6654 vegetables & prod. Subtotal processed grain and animal feed 6747 grain mill products Subtotal other agricultural products 6861 sugar 6899 farm products nec	3,096. 2,271 1,503 669 99 513 472 41 83 83 83 42 42 42 187 15 172	6 	2,193 1,726 1,313 413 	3 3	894 542 190 253 99 321 321 321 321 321 321 321 321 321 321	
Total all manufactured equipment, machinery and products7110machinery (not elec)7120electrical machinery7210vehicles & parts7230ships & boats7400manufac, wood prod.7600rubber & plastic pr.7900manufac, prod. nec	44 35 8 0 0 0 0 1	23 21 0 1 0 - 0 1	8 7 0 	7 0 0 	0 6 0 — 0	
Total unknown or not elsewhere classified 9900 unknown or nec	20 20	20 20	<u></u>	1999 - States	0 0	
Ton-miles (x1000) Foreign & Canadian	620,280	32,269	48,997	166,458	372,556	

CHANNELS IN LAKE ST. CLAIR Freight Traffic, 2006 - continued (thousand short tons)

				Dom	estic	
	Commedity	Total	Lake	wise	Inte	rnal
	Commonly	TULA	Thro	bugh	Thro	bugh
			Upbound	Downbnd	Upbound	Downbrid
Total,	all commodities	32,547	4,224	28,296	19	7
Total 1100 1200	coal coal & lignite coal coke	4,307 4,138 169	2,614 2,606 8	1,693 1,532 161		
Total Sub 2211 2330 2340 2429 2430 2540	petroleum and petroleum products total petroleum products gasoline distiliate fuel oll residual fuel oll naphtha & solvents asphalt, tar & pitch petroleum coke	448 448 79 101 27 8 77 157	223 223 79 73 27 8 33 3 3	201 201 14 43 144	17 17 7 10	7
Total Sub 3276	chemicals and related products total other chemicals and related products metallic salls	0 0 0		0 0 0		

CHANNELS IN LAKE ST. CLAIR Freight Traffic, 2006 - continued (thousand short tons)

			Dom	iestic	
Commodity	Total	Lake	ewise	Inte	rnal
	Total	Thre	նացի	Thro	bugh
		Upbound	Downbrid	Upbound	Downbnd
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4323 gypsum 4331 sand & gravel Subtotal iron one and scrap	26,903 7,097 6,573 249 275 19 191	1,368 670 670 84	25,535 6,427 5,903 249 275 19 108		
4410 iron ore 4420 iron & steel scrap Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	19,154 38 120 120 494 494	46 38 120 120 494 494	19,108 19,108 —- —		
Total primary manufactured goods Subtotal lime, cement and glass 5210 lime 5220 cement & concrete Subtotal primary iron and steel products 5312 pig iron 5330 i&s plates & sheets Subtotal primary non-ferrous metal products 5480 fab. metal products	546 512 6 507 333 31 3 0 0 0	19 19 19 	524 512 6 507 12 12 12 0 0	3 	
Total food and farm products Subtotal grain 6241 wheat 6445 oats	342 342 81 261		342 342 81 261		
Total all manufactured equipment, machinery and products 7110 machinery (not elec)	0 O				0 0 0
Ton-miles (x1000) Domestic	585,844	76,033	509,333	349	129
Tons All Traffic (x1000) 67,00 Ton-miles All Traffic (x1000) 1,206,12 Total Trip-ton-miles Internal and Intraport (x1000) 20,42	17 14 9				

*Includes 30 tons of Canadian upbound through in-transits.

DETROIT RIVER, MI

Section Included: Entire length of Detroit River and Rouge River to head of project. Controlling Depths: 25 to 28.5 feet and 21 to 25 feet, respectively with 5 feet of shoaling along the channel limits of the lower Livingstone and east outer channel and with project depth in the regularly traveled shipping lanes.

Comparative Statement of Traffic (thousand short tons	Comparative	Statement o	f Traffic	(thousand	short	tons)
---	-------------	-------------	-----------	-----------	-------	------	---

Year	Total	Year	Total	Year	Total	Year	Total
1997	75,939	2000	80,508	2003	63,961	2006	72,729
1998	82,842	2001	74,278	2004	72,458		
1999	70,242	2002	/4,055	2005	71,910		

			For	eian			Can	adian	
Commodity	Total	Inhound	Outbound	Thro	ough	Inhound	Outbound	Thro	ugh
		mbound		Upbound	Downbrid	moouna	Outoounu	Upbound*	Downbnd
Total, all commodities	38,303	689	41	1,793	2,722	3,099	549	10,225	19,185
Total coal 1100 coal & lignite 1200 coal coke	1 3,470 12,881 589		41 41			720 510 210	270 247 23	4,905 4,841 64	7,534 7,284 250
Total petroleum and petroleum products Subtotal crude petroleum 2100 crude petroleum Subtotal petroleum products 2211 gasoline 2330 distillate fuel oil 2340 residual fuel oil 2430 asphait, tar & pitch 2540 petroleum coke	1,457 115 115 1,342 38 128 128 122 24 1,030			0 0 0 0	53 53 53 	74 74 74 14 48 4 6	257 257 12 16 19 210	82 	992 115 115 877 78 53 746
Total chemicals and related products Subtotal fertilizers 3130 polassic fert.	371 119 119		·····	9 		***** <u>**</u>	21 	139	202 119 119



Commonity Total Induced Outbound Direction Induced Outbound Direction Subicial other chemicals and rolated products 23 0 8 - - 21 139 83 Subicial other chemicals and rolated products 78 - - - - 0 33 Subicial other chemicals and rolated products 8 - - - - 0 33 Subicial other chemicals, invalues 86 - - - - - 6 35 Subicial subic products, wood and chips 104 - 224 - - - 76 4246 5400 - - - - - 76 4246 5400 -	A W			Fore	eign			Can	adian	
Subscience 20 0 8 - - 21 139 83 2511 acquite hydrocestoors 3 - - - - 60 19 2512 birzens & bluene 78 - - - - 60 19 2512 birzens & bluene 78 - - - - 60 19 2512 birzens & bluene 78 - - - - 60 19 2512 birzens & bluene 78 - - - - - - 60 19 - - - 60 19 -	Commodity	Total	Inbound	Outbound	Thro Upbound	bugh Downbnd	Inbound	Outbound	Throu Upbound*	gh Downbnd
5211 apple hydrocarbons 3 - - - - 6 18 3219 benzes & blanes 8 0 8 - - - 6 18 3219 benzes & blanes 8 - 0 - - - - - 6 18 3219 denter hydrocarbons 8 - 0 - - 16 - <t< td=""><td>Subtotal other chemicals and related</td><td>253</td><td>0</td><td></td><td>9</td><td>·</td><td>_</td><td>21</td><td>139</td><td>83</td></t<>	Subtotal other chemicals and related	253	0		9	·	_	21	139	83
3212 barnen 6. folkene 78	3211 acyclic hydrocarbons	3					-			3
2439 O 9	3212 benzene & toluene	78			_		-	—	60	18
3274 addim by the second base is additional of the second base is additin additional of the second the second base is additio	3219 other hydrocarbons	9	0		9		-			6
3275 inorging elim, couldes, A halogen salts 83 55 Total crude materials, inveloble except fuels 54,427	3274 sodium hydroxide	16		_					16	
Total mode materials incluible except funds 15,23	3275 inorg. elem., oxides, & halogen salts 3276 metallic salts	83 56			0			21	63	56
4170 word in the rough 1 1 1 1 1 1 Subtotal puls and waste paper 122 1 122 1 12 Subtotal puls and waste paper 122 1 12 1 12 1 Subtotal puls and waste paper 122 1 12 1 16 3 432 shaps and gravel, rock and store 3,001 1 1 16 22 16 3 46 344 432 shaps and gravel 1,110 1 43 129 24 645 6655 440 itron ore 6,638 1 21 12 12 12 13 24 13 13 13 13 13 13 14 13 13 13 13 13 13 13 13 12 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 15 10 15 10 15	Total crude materials, inedible except fuels Subtral forest products, wood and chips	15,482 104		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	239	464	1,571		4,218	8,989
1489 kurbar 100 24 78 25. Ubtotal poly and waste paper 122 122 122 25. Ubtotal solt, sand, gravel, rock and stone 4,179 122 112 25. Ubtotal solt, sand, gravel, rock and stone 4,179 122 111 122 111 122 111 122 111 112 122 111 112 122 112	4170 wood in the rough	1			1		_	_		
122 123 124 123 123 124 123 123 124 123 123 124 123 124 123 124 123 124 124 126 1	4189 lumber	102			24		—			78
Subtolation Subtolation Solution Solution Solution 322 Investion 8 - - - 171 662 2737 323 Agreed 8 - - - 171 662 2737 323 Agreed 8 - - - 3 164 1377 4.56 3420 Inota Steel scrap 8 - - 230 164 1377 4.56 4400 Inota Steel scrap 322 - 84 - - 18 122 122 132 4500 auminum one 202 - 84 - - 15 101 1722 rest stead 280 - - 770 - 15 101 1725 paintota stead 780 - 773 - 672 2897 721 1731 prinary manufactured goods 1,2255 683 -	4225 pulp & waste paper	122			122	_				
4322 inselone 3,601	Subtotal soil, sand, gravel, rock and stone	4,719				43	300		946	3,430
4233 gypsun 18	4322 limestone	3,601					171	—	692	2,737
Subtole fine ore and scrap 1283 — — 230 164 — 1671 4,523 4410 ion ore 6 6,858 — — 230 164 1,971 4,523 4420 ion & steel scrap 6 — — 230 164 … 1971 4,523 4450 aluminum ore 202 … 84 … … 170 … 118 … 127 132 4500 aluminum ore 202 … 84 … … 170 … 15 101 Subtotal insert non-metal. min. 2780 … … … 170 … 1612 … 185 .265 101 Subtotal insert non-metal. min. 2236 … … … … … 1612 … 1632 … 1434 … … 144 … … 1434 … … 1414 … … … … … …	4323 gypsum 4321 cond & group	4 4 4 0		-		43	120	Prob ma	8	 600
4410 ion origination origination of the state of the	Subtotal iron ore and scrap	6.893	_			230	129		1.971	4.528
4420 ion & steel scrap 6	4410 iron ore	6,888				230	164		1,971	4,523
Subtotal incretors ores and scrap 382	4420 iron & steel scrap	5		. <u>.</u>				—		5
derge automation of end 242	Subtotal non-ferrous ores and scrap	362		·	84	21			125	132
4690 non-ferrors one nec 154	4670 manganese ore	202		· · ····	64	·	_		118	
Subtotal sulptur, lay and sait 266 170 15 101 Subtotal stag 760 170 100 170 170 170 170 100 170 100 100 100 100 100 100	4690 non-ferrous ores nec	154				21		_	J 1	132
4782 cday & refrac. mat. 286	Subtotal sulphur, clay and salt	286				170			15	101
Subtod stag 760 482	4782 clay & refrac. mat.	286				170	405		15	101
Subtrial other non-metal. min. 2.236 612 612	AB60 slad	760			_		495		265	_
4900 non-metal. min. nec 2.236 7 612 897 721 Total primary manufactured goods 4.265 588 1,495 5 735 634 657 Subtotal lines, cernet and glass 1,336 735 634 657 5220 cernet & concrete 1,336 735 634 667 5221 big ions disperiod. 0 141 141 141 141 141 141 -	Subtotal other non-metal. min.	2,236			7		612		897	721
Total primary manufactured goods 4,265 588	4900 pon-metal, min. nec	2,236		·	7		612		897	721
Subtail intra, exercised and glass 1936 1936 1936 1936 1936 1937 1938	Total arimany manufacturad goods	4 265	:			the states	300 795	1925-028 <u>8-02</u>		568
5220 carment & concrete 1936	Subtotal lime, cement and glass	1.936		· · · · · · · · · · · · · · · · · · ·	0	•	735		634	567
5240 glass & glass prod. 0 0 0 0 0 0 0 0 0 0 0 0 0 141 141 141 5312 big iron 205 1441 141 530 5312 big iron 12 488 141 530 530 539 5	5220 cement & concrete	1,936	—	· _	_		735		634	567
0290 misc. mineral prod. 0 - - - - - - - - - - - 141 - - 141 - - 141 - - 141 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - 134 - - - 134 - - - 134 -	5240 glass & glass prod.	Ő			_		—	_	0	
Subtrary finites 1.162 265	5290 misc, mineral prod. Subtotal primary iron and steel products	2 257	692		1 4 2 4			_	141	
5320 [ås primary forms 1,162 488	5312 pig iron	205			71				134	_
5330 (ks piates & sheets 698 99 — 598 — … <t< td=""><td>5320 i&s primary forms</td><td>1,162</td><td>488</td><td></td><td>672</td><td></td><td> <u> </u>→</td><td></td><td>1</td><td></td></t<>	5320 i&s primary forms	1,162	488		672		<u> </u> →		1	
5300 (ks pars & snapes 154 96	5330 i&s plates & sheets	698	99		599				<u> </u>	—
Solo to pupe shoe 23 0 23 0 11 0 12 1 0 1 1 1 1 0 1	5350 i&s pars & shapes	154	96		58					·
Subtoal primary non-ferrous metal 72 5 61 5 0 0 1 Subtoal products 1 - 0 - 0 - 1 5422 aluminum 1 - 0 - - - - - 1 5429 fab. metal products 69 5 - 60 5 0 - 1 - - 1 - - 1 - - - - 1 - - 1 - - - - <td< td=""><td>5390 primary i&s pec</td><td>11</td><td></td><td></td><td> 5</td><td></td><td></td><td></td><td>5</td><td></td></td<>	5390 primary i&s pec	11			5				5	
products 1 - 0 - - 1 5422 aluminum 1 - 0 - <td>Subtotal primary non-ferrous metal</td> <td>72</td> <td>5</td> <td>·</td> <td>61</td> <td>5</td> <td>0</td> <td></td> <td>Ō</td> <td>1</td>	Subtotal primary non-ferrous metal	72	5	·	61	5	0		Ō	1
5422 subminum 1	products									
5480 fab. metal products 69 5 60 5 0 0 Total food and farm-products 3,192 1,726 79 542 Subtotal grain 2,346 1,726 79 542 G241 wheat 1,503 1,313 79 542 G241 wheat 1,503 1,313 79 523 G445 cats 99 192 21 321 G524 segtables 534 192 21 321 G524 segtables & prod. 83 83	5422 aluminum 5429 smalted prod. pec	1			U 2			_		۱
Total food and farm products 3,192 6 2,193 99 894 Subtotal grain 2,346 1,726 79 542 6241 wheat 1,503 1,726 79 542 6241 wheat 1,503 1,731 79 542 6241 wheat 1,503 1,313 79 542 6245 cats 99 132 21 321 6534 flaxseed 41 151 21 321 6534 wegetables & prod. 83 83	5480 fab, metal products	69	5	_	60	5	0		0	
Total food and farm products 3,192			a ay sa ay ay	yananggan dings						
6241 wheat 1,503	Subtotal grain	2 346			123122-241 0	2,193 1 726			528-018-04 99 79	
6344 corn 744 413 79 253 6445 oats 99 192 21 321 6524 faxseed 431 151 21 321 6524 faxseed 41 41 12 321 654 faxseed 41 41 12 <	6241 wheat	1,503		·		1,313				190
6445 cats 99	6344 corn	744		·		413			79	253
Subtract Diserces 354 182 21 321 6522 solvbeans 493 151 21 321 6534 flaxseed 41 41	6445 oats	99			*****	402			24	99
6534 flaxseed 41	6522 sovheans	493			_	151			21	321
Subtotal vegetable products 83 83 63 6654 vegetables & prod. 83 83 63 Subtotal processed grain and animal feed 42 12 30 6747 grain mill products 42 12 30 Subtotal other agricultural products 137 6 180 30 Subtotal other agricultural products nec 172 172	6534 flaxseed	41				41				
6664 vegetables & prod. 83	Subtotal vegetable products	83		·		83				
Gourdar processed grant and animal feed 42 12 30 G747 grain mill products 187 6 180 30 Subtotal other agricultural products 187 6 180 30 6891 sugar 15 6 9 10 10 10 <	bbb4 vegetables & prod.	83				83			—	
Subtotal other agricultural products 187 6 180	6747 grain mill products	42				12				30
6861 sugar 15 6 9 0 10 10 10 0 0 0 0 10 10 10 10 <t< td=""><td>Subtotal other agricultural products</td><td>187</td><td> </td><td></td><td>6</td><td>180</td><td></td><td></td><td></td><td></td></t<>	Subtotal other agricultural products	187			6	180				
6899 farm products nec 1/2 1/2 1/2 Total all manufactured equipment, machinery 45 0 0 23 8 0 0 10 10 0 0 0 0 0 0 10 10 10 10 10 10 10 <td< td=""><td>6861 sugar</td><td>15</td><td> </td><td>· —</td><td>6</td><td>9</td><td> </td><td></td><td>—</td><td></td></td<>	6861 sugar	15		· —	6	9			—	
Total all manufactured equipment, machinery 45 0 0 23 8	6899 farm products nec	1/2				1/2				
and products 35 0 0 21 7 7 0 7110 machinery (not elec) 35 0 0 21 7 7 0 7120 electrical machinery 8 0 0 0 0 6 7210 vehicles & parts 1 1 0 0 0 7230 ships & boats 0 0 0 0 7400 manufac, wood prod, 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <	Total all manufactured equipment, machinery	45	0	0	23	8			7	7
7110 machinery (not elec) 35 0 0 21 7 7 0 7120 electrical machinery 8 0 0 0 0 0 7 0 6 7210 vehicles & parts 1 1 0 0 0 0 7210 vehicles & parts 1 1 0 0 0 0 7200 ships & boats 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 <	and products		2000.500							
7210 vectorized mathematry 0	7110 machinery (not elec) 7120 electrical machinery	35		0	21	7			7	0
7230 ships & boats 0 -0 0 0 1 0 1 0 1 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1	7210 vehicles & parts	0		· ····	U 1	0	_			บ ก
7400 manufac, wood prod. 0 0 7600 rubber & plastic pr. 0 0 0 7900 manufac, prod. nec 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 0 1 0 1 1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7230 ships & boats	ċ		·	. o	·				
Volue rubber & plastic pr. 0 — 0 — 0 — — — — — — — — — — — — — — — — — — …	7400 manufac, wood prod.	Ģ		·			—		0	—
Total unknown or not elsewhere classified 21 1 20 0 9900 unknown or nec 21 1 20 0 Ton-miles 1,130,112 14,427 826 55,574 84,383 54,735 8,457 316,969 594,742 Foreign & Canadian (x1000) 1 14,427 826 55,574 84,383 54,735 8,457 316,969 594,742	7600 rubber & plastic pr.	0			0					
Total unknown or not elsewhere classified 21 1 20	roou manulau, prou, neu	1	U		1				_	U
Ton-miles 1,130,112 14,427 826 55,574 84,383 54,735 8,457 316,969 594,742 Foreign & Canadian (x1000)	Total unknown or not elsewhere classified	21 21	1		20 20				_	0 0
	Ton-miles Foreign & Canadian (x1000)	1,130,112	14,427	826	55,574	84,383	54,735	8,457	316,969	594,742

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DETROIT RIVER, MI Freight Traffic, 2006 - continued (thousand short tons)

				Lake	wise	
	Commodity	Total	Receipts	Shipments -	Thro Upbound	bugh Downbrid
Total	all commodities	34,211	12,186	583	3,995	17,447
Tot 1100 1200	Il <u>coal</u> coal & lignite coal coke	5,496 5,327 169	1,378 1,312 66	17 9 8	2,597 2,597	1,504 1,409 95
Tota Su 2211 2330 2340 2429 2430	Il petroleum and petroleum products btotal petroleum products gasoline distillate fuel oil residual fuel oil naphtha & solvents asphalt, tar & pitch	774 774 79 92 41 8 400	18 18 12	405 405 34 18 344	155 155 79 45 23 8	195 195 14
2540	petroleum coke	153 0	6	9 		139 0
Su 3276	biotal other chemicals and related products metallic salts	0 0	· · · · · · · · · · · · · · · · · · ·			0 0
Tota Su 4322 4323 4331 Su 4410 4420 Su 4860 Su 4900	Il crude materials, inedible except fuels btotal soil, sand, gravel, rock and stone limesione gypsum sand & gravel btotal iron ore and scrap iron ore iron & steel scrap btotal slag slag btotal other non-metal. min. non-metal. min. nec	27,046 7,118 6,573 249 296 19,236 19,181 54 120 120 571 571	10,455 2,165 2,123 43 8,212 8,212 8,212 	161 	1,224 670 670 20 20 94 94 440	15,205 4,283 3,780 249 253 10,923 10,923
Tota Su 5210 5220 Su 5312 Su 5480	Il primary manufactured goods btotal lime, cement and glass lime cement & concrete btotal primary iron and steel products pig iron btotal primary non-ferrous metal products fab. metal products	553 522 6 517 31 31 31 0 0	335 335 335 335 		19 19 19 	199 187 6 182 12 12 12 0 0
Tota Su 6241 6445	Il food and farm products btotal grain wheat oats	342 342 81 261		<u></u>		342 342 81 261
Ton- Lakey	-miles (x1000) vise	909,928	236,331	8,900	123,836	540,861

				Internal		
Commodity	Total	Outbound	Thro	bugh	In	tra
· · · · ·		Upbound	Upbound	Downbnd	Upbound	Downbrid
Total, all commodities	214	17	3	7	88	101
Total petroleum and petroleum products Subtotal petroleum products 2330 cistiliate fuel oil 2340 residual fuel oil 2430 asphalt, tar & pitch 2540 petroleum coke	212 212 51 36 115 10	17 17 7 — 10		7 7 7	88 88 37 36 14	101 101 101
Total primary manufactured goods Subtotal primary iron and steel products 5330 i&s plates & sheets	3 3 3		3 3 3			
Ton-miles (x1000) Internal	2,606	182	89	212	354	1,769
Tons All Traffic (x1000) 72.72	29					

 Tons All Traffic (x1000)
 72,729

 Ton-miles All Traffic (x1000)
 2,042,653

 Total Trip-ton-miles Internal and Intraport (x1000)
 20,617

*Includes 30 tons of Canadian upbound through in-transits.

DETROIT HARBOR, MI (INCLUDED IN PORT OF DETROIT)

Section Included: U.S. bank of Detroit River from Lake St. Clair to western extreme of Zug Island. Controlling Depth: Channel north of Belle Isle 21 feet, remainder of river 25-28.5 feet. Project Depth: 28.5 feet except channel north of Belle Isle, 21 feet. Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	5,689 5,882 8,257	2000 2001 2002	7,116 6,053 5,810	2003 2004 2005	3,770 4,499 5,705	2006	6,250

Freight Traffic, 2006 (thousand short tons)

		Foreign	Can	adian		Domestic	
Commodity	Grand Total	Inbound	Inbound	Outbound	Total	Lake	wise Shinments
Total, all commodities Total coal 1100 coal & lignite 1200 coal coke	6,250 181 170 11	674 	301 62 —	76 76 65 11	5,199 44 44 —	5,138 35 35	62 9
Total chemicals and related products Subtotal other chemicals and related products 3219 other hydrocarbons	0 0 0 0	0 0 0			10.0000 <u>00</u> 		
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal slag 4800 slag Subtotal other non-metal, min, 4900 non-metal, min, nec	5,039 713 666 47 4,115 4,115 133 133 77 77		213 106 80 26 107 107 		4,826 607 586 21 4,115 4,115 26 26 77 77	4,773 607 586 21 4,089 4,089 	53
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets 5300 i&s bars & shapes 5390 primary iks nec Subtotal primary non-ferrous metal products 5480 fab. metal products	1,029 356 356 668 488 84 96 0 5 5	673 668 488 84 96 96 0 5 5	26 26 26 0 0		330 330 330 	330 330 330 	
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7120 electrical machinery 7900 manufac. prod. nec	0 0 0 0 0	0 0 0 0		=			
Total unknown or not elsewhere classified 9900 unknown or nec	1 1	1993) 1 	1993 A <u>A</u> —-				

ROUGE RIVER, MI (INCLUDED IN PORT OF DETROIT)

Section Included: From the mouth of the Short Cut Canal to the Ford Motor Company. Controlling Depth: 20 feet for a minimum width of 100 feet from the mouth of the short cut to Dix Avenue Bridge, with the exception of some shoal areas, and 20 feet in the turning basin, except near the shore. Project Depth: 21.0 feet from mouth of Short Cut Canal to and including the turning basin in main channel.

Comparative Statement of Traffic (thousand short tons)

Year	Totai	Year	Total	Year	Total	Year	Total
1997 1998 1999	11,996 12,626 8,190	2000 2001 2002	9,243 10,036 10,018	2003 2004 2005	9,740 11,170 11,020	2006	10,707
1000	0,100	2002	10,010	2000	1,020		

					Can	adian		-	Domestic	0	
Commodity	Grand Total	Outbound	Inhound	Outhouad	Total	Lak	ewise	Inter	nal		
		Outpound	Inpodia Outpound			Receipts	Shipments	Shipments	Intraport		
Total, all commodities	10,707	41	2,656	465	7,545	6,819	521	88 F. 17	188		
Total coal 1100 coal & tignite 1200 coal coke	2,075 1,741 334	41 41	658 448 210	194 182 12	1,182 1,111 71	1,174 1,111 63	8 				

		Foreign	Cana	adian		• • • •	Domesti	c	
Commodity	Grand Total	Outbound	Inbound (Outbound	Total	Lak	ewise	Interr	nal
···		Calocalio				Receipts	Shipments	Shipments	Intraport
Total petroleum and petroleum products Subtotal petroleum products	951 951	8-19-14- 1 -1	74 74	250 250	628 628	18 18	405 405	17 17	188 188
2330 distillate fuel oil	105		14	12	78		34	7	37
2430 asphalt, tar & pitch	495		40	19	471	12	344		115
2540 petroleum coke	241	_	6	210	24	6	9	10	*****
Total chemicals and related products	21			21					
Subtotal other chemicals and related products	21		-	21			. —		
3275 inorg. elem., oxides, & halogea salts	21			21			—		_
Total crude materials, inedible except fuels	6,946		1,216		5,730	5,622	108		
4322 limestone	1,574		76		1,498	1,498			_
4331 sand & gravel	54	—	54	—	4 1 79	4 1 24		-	
4410 iron ore	4,288		164		4,124	4,124			_
4420 iron & steel scrap	54		200		54		54		
4860 slag	388		388			_		_	
Subtotal other non-metal, min.	587		533		54		54		·
4900 non-metal, min, nec	587		533		54		54		
Total primary manufactured goods	714		709		5	5			n an an an an ann an an an an an an an a
Subtotal time, cement and glass 5220 cement & concrete	7 14 714		709 709		5	5			
		1	I		I				

ROUGE RIVER, MI (INCLUDED IN PORT OF DETROIT) Freight Traffic, 2006 - continued (thousand short tons)

PORT OF DETROIT, MI

Section Included: Detroit Harbor, Rouge River, Ecorse, Wyandotte, Riverview and Trenton. Controlling and Project Depths: See aforementioned project descriptions.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	18,135	2000	17,295	2003	14,308	2006	17,352
1998	19,454	2001	16,991	2004	16,858		
1999	16,948	2002	17,306	2005	17,448		

	Commodity	Total	For	eign	Canadian		
	Connoary	Totai	Inbound	Outbound	Inbound	Outbound	
Total,	all commodities	4,378	689	41	3,099	549	
. Total 1100 1200	coal coal & ignite coal coke	1,031 756 275		41 41	720 510 210	270 247 23	
Total Sub 2330 2340 2430 2540	petroleum and petroleum products total petroleum products distiliate fuel oil residual fuel oil asphalt, tar & pitch petroleum coke	331 331 27 64 24 216			74 74 14 48 4 6	257 257 12 16 19 210	
Total Sub 3219 3275	chemicals and related products total other chemicals and related products other hydrocarbons inorg. elem., oxides, & halogen salts	21 21 0 21	0 0 0 	 		21 21 21 21	
Total Sub 4322 4331 Sub 4410 Sub 4860 Sub 4900	crude materials, inedible except fuels total soil, sand, gravel, rock and stone limestone sand & gravel total iron ore and scrap iron ore total slag slag total other non-metal. min. non-metal. min. nec	1,571 300 171 129 164 164 495 495 612 612			1,571 300 171 129 164 164 495 495 612 612		
Total Sub 5220 5320 5330 5360 5390	primary manufactured goods total lime, coment and glass cement & concrete total primary iron and steel products i&s pitters & sheets i&s bars & shapes primary i&s nec	1,422 735 735 683 488 99 96 0	688 683 488 99 96 0		735 735 735 — — — —		

PORT OF DETROIT, MI Freight Traffic, 2006 - continued (thousand short tons)

	Commodity	Totof	For	eign	Canadian	
			Inbound	Outbound	Inbound	Outbound
Sub 5480	total primary non-ferrous metal products fab. metal products	5 5	5 5		0	=
Total 7110 7120 7900	all manufactured equipment, machinery and products machinery (not elec) electrical machinery manufac. prod. nec	1 0 0	0 0 0 0	0 0 		
Total 9900	unknown or not elsewhere classified unknown or nec	1	1			

				Dom	estic	
	Commodity	Total	Lake	ewise	Inter	mal
			Receipts	Shipments	Shipments	Intraport
Total,	all commodities	12,974	12,186	583	17	188
Total 1100 1200	coal & lignite coal coke	1,395 1,321 74	1,378 1,312 66	17 9 8		
Total Sub 2330 2340 2430 2540	petroleum and petroleum products total petroleum products distillate fuel oit residual fuel oil asphait, tar & pitch petroleum coke	628 628 78 54 471 24	18 18 — 12 6	405 405 34 18 344 9	17. 17 7 — 10	188 188 37 36 115
Total Sub 4322 4331 \$ub 4410 4420 \$ub 4860 \$ub 4860 \$ub	crude materials, inedible except fuels total soil, sand, gravel, rock and stone limestone sand & gravel total iron ore and scrap iron ore iron & steel scrap total slag slag total other non-metal. min. non-metal. min. nec	10,617 2,165 2,123 43 8,294 8,239 54 26 26 131 131	10,455 2,165 2,123 43 8,212 8,212 8,212 	161 		
Total Sub 5220	primary manufactured goods total lime, cement and glass cement & concrete	335 335 335 335	335 335 335	<u></u>		<u></u>

MONROE HARBOR, MI

Section Included: Channel in Lake Erie and 16,000 feet above Raisin River.Controlling depth: 20 feet to turning basin over a center width of 150 feet; 16,5 feet in turning basin except near the shore; 5.5 feet in 9 foot channel. Project Depth: 21 feet to the turning basin; 18 feet in the turning basin; 9 feet to lower docks at Monroe. Navigation season: Approximately 20 April to 14 December.

Comparative Statement of Traffic (thousand short tons),

[Year	Totai	Year	Total	Year	Total	Year	Total
	1997 1998 1999	2,750 1,929 1,771	2000 2001 2002	915 766 1,008	2003 2004 2005	1,077 948 1,587	2006	1,379

		Canadian	Domestic		
Commodity Grand	Commodity Grand Total				
Total, all commodifies	1,379	43	1,336		
Total coal 1100 coal & lignite 1200 coal coke	1,201 1,186 15		1,201 1,186 15		
Total petroleum and petroleum products Subtotal petroleum products 2430 asphalt, tar & pitch 2540 petroleum coke	175 175 89 87	40 40 40	135 135 89 46		
Total primary manufactured goods Subtotal primary non-ferrous metal products 5480 fab. metal products	2 2 2	2 2 2	0 0 0		

CALCITE, MI

NON-CORPS PROJECT

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Уеаг	Total
1997 1998 1999	10,036 9,389 9,533	2000 2001 2002	8,475 8,317 8,575	2003 2004 2005	6,832 8,949 7,288	2006	6,428

Freight Traffic, 2006 (thousand short tons)

		Can	adian	Domestic		
Commodity	Grand Totai	Inbound	Outbound	Total	Lak	ewise
		mooung			Receipts	Shipments
Total, all commodities	6,428	41	931	5,456		5,448
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oii	41 41 41	41 41 41				
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone Subtotal iron ore and scrap 4410 iron ore	6,387 6,290 6,290 96 96		931 931 931 	5,456 5,359 5,359 96 96	8 8 	5,448 5,351 5,351 96 96
Total primary manufactured goods Subtotal primary non-ferrous metal products 5480 fab. metal products	0 0 0	<u>- 1988</u> 		0 0 0		0 0 0

ESCANABA, MI

NON-CORPS PROJECT

Comparative Statement of Traffic (thousand short tons)

Year	Total	Үеаг	Total	Year	Total	Year	Total
1997 1998	7,261 8,530	2000 2001	8,647 6,980	2003 2004	4,582 6,620	2006	5,689
1999	8,511	2002	4,645	2005	5,073		

		Canadian		Don	nestic	
Commodity	Grand Total	lebound	Total	L.akı	ewise	Internal
		продю		Receipts	Shipments	Intraport
Total, all commodities	5,689	17	5,673	1,043	4,566	64
Total coal 1100 coal & lignite	322 322		322 322	322 322		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 imestone Subtotal iron ore and scrap 4410 iron ore Subtotal slag 4860 slag Subtotal other non-metal, min. 4900 non-metal, min, nec	5,346 721 721 4,591 4,591 17 17 17 17	17 	5,330 721 721 4,591 4,591 17 17	721 721 721 — —	4,544 4,527 4,527 17 17 	64 64 64
Total primary manufactured goods Subtotal primary iron and steel products 5312 pig iron	21 21 21 21	 	21 21 21 21	<u></u>	21 21 21 21	

STONEPORT, MI

NON-CORPS PROJECT

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	8,101 9,114 8,873	2000 2001 2002	7,842 8,118 7,455	2003 2004 2005	6,445 7,754 6,795	2006	6,865
1000	0,073	2002	7,400	2005	0,700		

		Canadian		Domestic		
Commodity	Grand Total	Inhound	labourd Outbourd		Lake	ewise
		mbound	Cuabouna		Receipts	Shipments
Total, all commodities	6,865	21	90	6,753	150	6,604
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel	6,865 6,865 6,853 13	21 21 21 —-	90 90 90	6,753 6,753 6,741 13	150 150 150 —	6,604 6,604 6,591 13

Harbor of Water very		
Project	Commodity	Thousand Short Tons
ALGOMA HARBOR, WI	No Commerce Reported	
ALGONAC, MI (INCLUDED IN ST. CLAIR RIVER)	No Commerce Reported	
ASHLAND HARBOR, WI	7230 ships & boats	0
	Total Tons(x1000)	0
AU SABLE HARBOR AND RIVER (OSCODA), MI	No Commerce Reported	
BAYFIELD HARBOR, WI	2211 gasoline 2330 distillate fuel oil 2640 hydrocarbon & petrol gases, liquefied and gaseous 4170 wood in the rough 4331 sand & gravel 5480 fab. metai products 7230 ships & boats 7900 manufac. prod. nec Totat Tons(x1000)	0 0 0 1 0 9 9 11
BIG BAY HARBOR, MI	No Commerce Reported	
· ·		
BLACK RIVER HARBOR, MI	No Commerce Reported	
CASEVILLE, MI	No Commerce Reported	
CEDAR RIVER HARBOR, MI	No Commerce Reported	
CHEBOYGAN HARBOR, MI	2211 gasoline 2330 distillate fuel oil 2340 residual fuel oil 4322 limestone 7900 manufac. prod. nec Total Tons(x1000)	148 31 2 12
CHIPPEWA HARBOR (ISLE ROYALE), MI	No Commerce Reported	
CLINTON RIVER, MICHIGAN	No Commerce Reported	
CORNUCOPIA HARBOR, WI	No Commerce Reported	
DETOUR, MI AND VICINITY (INCLUDED IN ST. MARYS RIVER)	No Commerce Reported	
DETROIT HARBOR, WI	2211 gasoline 2330 distillate fuel oil 2640 hydrocarbon & petrol gases, liquefied and gaseous 4170 wood in the rough	1 1 0 0

Other Harbors and Waterways 2006

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Other Harbors and Wate	ways 2006 - continued
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Harbor or Waterway	Commodity	Thousand Short Tons
Project		
DETROIT HARBOR, WI - continued	6134 fish (not shellfish) 9900 unknown or nec	0 5
	Total Tons(x1000)	7
EAGLE HARBOR, MI	No Commerce Reported	
ECORSE, MI (INCLUDED IN PORT OF DETROIT)	1200 coal coke 2340 residual fuel oil 4322 limestone 4331 sand & gravel 4900 non-metal. min. nec 5330 i&s plates & sheets 7110 machinery (not elec)	3 8 43 71 78 15 0
	Total Tons(x1000)	218
FRANKFORT HARBOR, MI	No Commerce Reported	
GLADSTONE HARBOR, MI	1100 coai & lignite 2430 asphall, tar & pitch 4322 limestone 4860 slag 4900 non-metal. min. nec	79 50 14 11 59
	Total Tons(x1000)	214
GRAND MARAIS HARBOR (HARBOR OF REFUGE), MI	No Commerce Reported	
GRAND MARAIS HARBOR, MN	No Commerce Reported	
GRAND TRAVERSE BAY HARBOR, MI	No Commèrce Reported	
HARBOR BEACH, MI (HARBOR OF REFUGE, LAKE HURON)	1100 coal & lignite	74
	Total Tons(x1000)	74
HARRISVILLE HARBOR, MI (HARBOR OF REFUGE, LAKE HURON)	No Commerce Reported	
KENOSHA HARBOR, WI	No Commerce Reported	
KEWAUNEE HARBOR, WI	No Commerce Reported	
KEWEENAW WATERWAY, MI	2211 gasoline 2330 distillate fuel oil 3220 alcohols 4170 wood in the rough 4189 lumber 4331 sand & gravel 4420 iron & steel scrap 4900 non-metal. min. nec	5 0 0 0 0 14

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Harbor or Waterway	Commodity	Thousand Short Tons
Project		
KEWEENAW WATERWAY, MI - continued	5290 misc, mineral prod. 5370 i&s pipe & tube 5480 fab, metal products 7110 machinery (not elec) 7210 vehicles & parts 7500 textile products 7900 manufac, prod. nec	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Total Tons(x1000) Total Ton-miles(x1000) Total Trip-ton-miles Internal and Intraport (x1000)	21 193 0
KNIFE RIVER HARBOR, MN	No Commerce Reported	
LA POINTE HARBOR, WI	2211 gasoline 2330 distillate fue! oil 2640 hydrocarbon & petro! gases, liquefied and gaseous 7900 manufac. prod. nec	0 0 0 9
	Total Tons(x1000)	10
LAC LA BELLE HARBOR, MI	No Commerce Reported	
LELAND HARBOR, MI	No Commerce Reported	
LIME ISLAND, MI (INCLUDED IN ST. MARYS RIVER)	No Commerce Reported	
MACKINAC HARBOR, MI	4322 limestone 7900 manufac, prod. nec	11 35
	Total Tons(x1000)	46
MACKINAW CITY HARBOR, MI	No Commerce Reported	
MANISTIQUE HARBOR, MI	2211 gasoline 2330 distillate fuel oil	1
	Total Tons(x1000)	1
NEW BUFFALO HARBOR MI	No Commerce Reported	
OCONTO HARBOR, WI	No Commerce Reported	
ONTONAGON HARBOR, MI	1100 coal & lignite	231
	Total Tons(x1000)	231
PENSAUKEE HARBOR, WI	No Commerce Reported	
PENTWATER HARBOR, MI	No Commerce Reported	

Other Harbors and Wate	ways 2006 - continued
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Harbor or Waterway	Commodity	Thousand Short Tons
Project		
PORT HURON, MI (INCLUDED IN ST. CLAIR RIVER)	No Commerce Reported	
PORT SANILAC HARBOR, MI	No Commerce Reported	
PORT WASHINGTON HARBOR, WI	5480 fab. metal products 7110 machinery (not elec) 7900 manufac. prod. nec	1 0 1
	Total Tons(x 1000)	2
PORT WING HARBOR, WI	No Commerce Reported	
PUT-IN-BAY HARBOR, OH	2211 gasoline 2330 distillate fuel oil 4322 limestone 7900 manufac, prod. nec	1 1 26 1
	Total Tons(x1000)	
RACINE HARBOR, WI	4335 waterway improv. mat 7110 machinery (not elec)	12
	Total Tons(x1000)	12
ROGERS CITY, MI	No Commerce Reported	
SAUGATUCK HARBOR AND KALAMAZOO RIVER, MI	No Commerce Reported	
SAULT STE. MARIE, MI (INCLUDED IN ST. MARYS RIVER)	4900 non-metal, min, nec	61
	Total Tons(x1000)	61
SEBEWAING, MI	No Commerce Reported	
SHEBOYGAN HARBOR, WI	No Commerce Reported	1
SOUTH HAVEN HARBOR, MI	4335 waterway improv. mat	2
	Total Tons(x1000)	2
ST. JAMES (BEAVER ISLAND), MI	2211 gasoline 2330 distillate fuel oil 9900 unknown or nec	1 1 17
	Total Tons(x1000)	
STURGEON BAY AND LAKE MICHIGAN SHIP CANAL, WI	4335 waterway improv. mat 4420 iron & steel scrap 5220 cement & concrete	1 3 3
	Total Tons(x1000) Total Ton-miles(x1000)	7 24

Other Harbors	and	Waterway	s 2006 -	continued
other fitaloois	CI I I I	A DECIMAR	3 2000 -	continueu

Harbor or Waterway	Commodity	Thousand Short Tons
Project		
TRAVERSE CITY HARBOR, MI	2211 gasoline 2330 distillate fuel oli	134 15
	Total Tons(x1000)	148
TRENTON, MI (INCLUDED IN PORT OF DETROIT)	1100 coal & lignite	69
	Total Tons(x1000)	69
TWO RIVERS HARBOR, WI	No Commerce Reported	
WARROAD HARBOR, MN	No Commerce Reported	
WHITE LAKE HARBOR, MI	No Commerce Reported	
WHITEFISH POINT HARBOR, MI	No Commerce Reported	
WYANDOTTE, MI (INCLUDED IN PORT OF DETROIT)	1100 coal & lignite 4322 limestone	98 11
	Total Tons(x1000)	108
Non-project		
MARBLEHEAD, OH	1100 coal & lignite 4322 limestone 4331 sand & gravel	19 3,669 70
	Total Tons(x1000)	3,758
PORT DOLOMITE, MI	4310 building stone 4322 limestone 5210 lime	17 2,533 32
	Total Tons(x1000)	2,582
PORT GYPSUM, MI	4323 gypsum	500
	Total Tons(x1000)	500
PORT INLAND, MI	4310 building stone 4322 limestone 4323 gypsum 4331 sand & gravel 4900 non-metal. min. nec 5210 lime	23 5,429 10 22 16 22
	Total Tons(x1000)	5,523
SILVER BAY, MN	1100 coal & lignite 4410 iron ore	467 4,722
		5,188

TOLEDO HARBOR, OH

Section Included: Channel in Lake Erie and 7 miles in lower Maumee River. Controlling Depths: 28 feet in the Bay Channel; 27 feet in The River Channel to the turning basin opposite the Mid-States Terminals, Inc. dock; thence 14 feet to the turning basin at the upper project limits with 13 feet in the turning basin; 20 feet in the turning basin at mile 3 and 27 feet in the turning basin at mile 6.5, project depths: 28 feet in bay and 27 feet in the river channel to the turning basin opposite the Mid-States Terminals, Inc. dock; thence 25 feet to the turning basin at upstream limits of the project with 18 feet in the turning basin; 20 feet in the turning basin at mile 3 and 27 feet in the river channel to the turning basin; 20 feet in the turning basin at mile 3 and 27 feet in turning basin at mile 6.5. Navigation season: Approximately March 1 to December 31.

Comparative Statement of Traffic (thousand :	short ton	IS)
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Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	14,422 13,229 12,327	2000 2001 2002	13,322 10,535 11,115	2003 2004 2005	9,864 9,862 10,504	2006	11,162

		Foi	reign	Cana	idian		Don	nestic	
Commodity	Grand Total	Inbound	Outbound	Inbound (Outbound	Total	Coastwise	Lake	ewise
							Shipments	Receipts	Shipments
Total, all commodities	11,162	207	1,088	4,739	2,834	2,294	11	990	1,292
Total coal	2,761	<u> - 112 - 112</u>	1.070 X	10	1,720	1,032		42	990
1100 coal & lignite 1200 coal coke	2,743 19			10	1,710 9	1,032	_	42	990
 International statements and the statement of t the statement of the statemen		l secore	Almadia Ara	in the large	na na iz				
 iotal petroleum and petroleum products de la subtotal petroleum products 	639 639		6 6	515.05 17 55 17	249 249	368	000000000110 11	130 130	226 226
2211 gasoline	258	<u> </u>	6		162	90	11		79
2221 kerosene	32	-			32				45
2330 distillate fuel oli 2340 residual fuel oli	85 103			8	27	94		°	45 94
2429 naphtha & solvents	8	i —	_		_	8			8
2430 asphalt, tar & pitch	51	-		_	20	31	_	31	
2540 petroleum coke	103			9	b , * * * *	93		93	
Total chemicals and related products	170	29	·····	97	44				
3110 nitrogenous fert.	102	6		97			_		
3130 potassic fert.	97	i		97				<u> </u>	
Subtotal other chemicals and related products	67	23			44				
3275 Inorg. elem., oxides, & naiogen saits 3276 metallic saits	44	23			44			_	
	•••				alva tärja	(X. Y. Y. J. 1997)			
Total crude materials, inedible except fuels	See 5,150	25	·····	4,289	33	803		736	67
4189 lumber	94	16	_	78	_				
Subtotal soil, sand, gravel, rock and stone	882			762	29	90		90	
4322 limestone	702			612		90	_	90	
4331 sano & gravei Subtotal iron ore and scrap	3.790			3.305	29	485		458	28
4410 iron ore	3,790			3,305		485		458	28
Subtotal sulphur, clay and salt	9	9]			
4782 clay & retrac. mat. Subtotal slag	30	9				39			39
4860 slag	39					39		_	39
Subtotal other non-metal. min.	335			144	4	188		188	
4900 non-metal, min, nec	335		*****	344	4	188		188	
Total primary manufactured goods	381	84		205		91		83	9
Subtotal paper products	1	1				_			
Subtotal lime, cement and glass	205			113		91		83	9
5220 cement & concrete	205			113		91	_	83	9
Subtotal primary iron and steel products	120	83		37					
5320 i&s primary forms	13	13							
5330 i&s plates & sheets	40	40			_		_		
5370 i&s pipe & tube Subtatal primary pon-forrous motal products	21	21	*****	55					
5422 aluminum	55			55			_	_	_
Total food and farm products	2 058	67	1 082	121	788				
Subtotal grain	1,316		680	121	515	·			
6241 wheat	43	-	20	23					_
6445 pais	3,175		059	99	515				
Subtotal oilseeds	675		402	ļ <u> </u>	272	-			
6522 soybeans	675		402		272			—	
Subtotal other agricultural products 6861 sugar	67 67	67							
Ministry and the second state of the second measured of second s second second se second second s	en en en en en		-05-03-00-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-		1114,015,054	252222.202			van ookerster
and products	3	3							
7110 machinery (not elec)	3	3				—	· · · · · · · · · · · · · · · · · · ·		
		1		I				1	

KELLEYS ISLAND, OH

Section Included: Entire area of Kelleys Island, Ohio. Controlling Depth: Unimproved, natural depths unknown. Project depth: Approach channel, 12 feet; Entrance channel, 10 feet; and remainder of channel, 8 to 10 feet.

Comparative Statement of Traffic (thousand short tons)								
Year	Total	Year	Total	Year	Total	Year	Total	
1997 1998 1999	1,170 1,173 1,081	2000 2001 2002	798 1,050 1,289	2003 2004 2005	1,071 621 818	2006	1,116	

Freight Traffic, 2006 (thousand short tons)

Commadhy	Conned Tetal	Lake	ewise
Conindaty	Grand I brai	Receipts	Shipments
Total, all commodifies	1,116	3	1,114
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone	1,116 1,116 1,116	3 3 3	1,114 1,114 1,114 1,114

SANDUSKY HARBOR, OH

Section Included: Southeasterly portion of Sandusky Bay to and including passenger docks on Cedar Point. Controlling Depth: Mosely Channel, 26 feet; Bay Channel and Straight Channel from Mosely Channel to junction with Bay Channel, 25.0 feet; turning basin, 24 feet; Dock channel, 21 feet; Straight channel from dock channel to junction with Bay Channel, 21 feet. Project Depths: Mosely Channel, 26 feet; bay channel and Straight Channel from Mosely Channel to junction with Bay Channel, 21 feet; Dock channel, 26 feet; bay channel and Straight Channel from Mosely Channel to junction with Bay Channel, 25 feet; turning basin, 24 feet; Dock channel, 22 feet; and straight channel from dock channel, 21 feet.

Comparative	Statement	of Traffic	(thousand	short tons)
voindaiaive	UIGICITICIL	VIIIamu	THOUSAHN	

Year	Total	Year	Total	Year	Total	Year	Total
1997	4,403	2000	3,645	2003	4,183	2006	3,790
1998	4,334	2001	4,649	2004	3,404		-
1999	4,898	2002	4,455	2005	3,555		
							1

Freight Traffic, 2006 (thousand short tons)

		Canadian	Domestic			
Commodity	Grand Total	Outbound	Total	Lake	wise	
-		Outoound		Receipts	Shipments	
Total, all commodities	3,790	2,103	1,687	15	1,672	
Total coal 1100 coal & lignite	3,755 3,755	2,103 2,103	1,653 1,653		1,653 1,653	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal other non-metal, min. 4900 non-metal, min. nec	34 1 19 19 14 14		34 1 19 19 19 14 14	15 1 1 	19 19 19 	

HURON HARBOR, OH

Section Included: Lake approach channel from deep water to a point opposite the outer end of east breakwater; entrance channel from its junction with the approach channel to its junction with the River Channel; River channel and turning basin to within 1,500 feet of the Penn Central Railroad Bridge. Controlling Depths: Lake approach and entrance channel, 27.5 feet; river channel, 27 feet; turning basin, 21 feet. Project Depths: Lake approach and entrance channel, 27.5 feet; river channel, 27 feet; turning basin, 21 feet. Project Depths: Lake approach and entrance channel, 27.5 feet; river channel, 27 feet; turning basin, 21 feet. Project Depths: Lake approach and entrance channel to Slip No. 1, 28 feet; from Slip No. 1 through eastern portion of the turning basin, 28 feet; turning basin, 22 feet.

Comparative Statement of Traffic (thousand short tons)

 Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	856 1,192 1,154	2000 2001 2002	1,275 1,260 898	2003 2004 2005	1,291 860 1,032	2006	845

Freight Traffic, 2006 (thousand short tons)

Commodity	Grand Total	Canadian Outbound	Domestic Lakewise Receipts
Total, all commodities	845	22	824
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore	834 516 506 10 317 317	10 10 10 10	824 506 506 317 317
Total food and farm products Subtotal grain 6344 com	12 12 12 12	12 12 12	

LORAIN HARBOR, OH

Section Included: Outer Harbor and Black River from mouth to and including United States Steel Corp., National Tube Division dock, 3 miles. ControllingDepths: Lake Approach channel, 27.0 feet; A channel 800 feet wide through the Outer Harbor, 27 feet; remainder of Outer Harbor, 25 feet; lower 2,200 feet of River Channel, 25 feet; remainder of River Channel 24 feet except turning basinjust downstream of the 21st Street Bridge which is 12 to 19 feet and the returning Basin opposite the U. S. Steel Corp., National Tube Division which is 12 to 20 feet. Project Depths: Lake Approach Channel, 29 feet; a channel 800 feet wide through the Outer Harbor, 28 feet; remainder of Outer Harbor, 25 feet; lower 2,200 feet of River Channel, 27 feet; remainder of River Channel, 27 feet; except turning basin downstream of 21st Street Bridge, 20 feet and turning basin opposite U. S. Steel Corp., National Tube Division Dock, 21 feet.

Comparative Statement of Tra	affic (thousand short tons)
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Year	Total	Year	Total	Year	Total	Year	Total
1997 1998	15,955 14,166	2000 2001	14,180 7,865	2003 2004	2,154 3,007	2006	3,617
1999	12,968	2002	6,672	2005	3,055		

			Foreign	Car	iadian		Domes	tie
	Commodity	Grand Total	Inbound	Inbound	Outbound	Total	Lak	ewise
Total,	all commodities	3,617	135	478	88	2,915	2,877	Shipments 38
Tota 1200	l coal coke	349 349	135 135	214 214				
Tota Sut 3130	I chemicals and related products ototal fertilizers potassic fert.	18 18 18		18 18 18		<u></u>		
Tota Suk 4322 4323 4331 Suk 4410 4420 Suk 4782 Suk 4860 Suk 4900	I crude materials, inedible except fuels stotal soil, sand, gravel, rock and stone limestone gypsum sand & gravel stotal iron ore and scrap iron ore iron & steel scrap stotal sulphur, clay and salt clay & refrac. mat. stag stag stotal other non-metal. min. non-metal. min. nec	3,231 1,206 922 245 39 1,910 1,883 27 24 24 24 80 80 11		247 202 162 399 100 0 10 24 24 24 	88 8 8 8 8 8 8 1 1 1 1 1 1 80 80 80	2,896 997 752 245 1,899 1,883 17 	2,877 997 752 245 1,860 1,863 17 	20 20 20
Tota Suk 5312	primary manufactured goods ptotal primary iron and steel products pig iron	19 19 19			=	19 19 19		19 19 19
T ota 7110	I all manufactured equipment, machinery and produc machinery (not elec)	ts 0		0 0	99992 —	<u>109.223</u> —	- -	

CLEVELAND HARBOR, OH

Section Included: Outer Harbor, Old River and Cuyahoga River from mouth to and including Upper Republic Steel Corp. Dock, immediately downstream from Norfolk & Western Raliway Bridge, 5.8 miles. Controlling Depht: Lake Approach Channel, 29 feet; entrance channel, West Basin and westerly 800 feet of East Basin, 28 feet; easterly 3800-foot length of East Basin, 27 feet; 500-foot channel through East Outer Harbor, 25 feet; channel between piers to Conrail Raliroad Bridge, 27.0 feet; channel in Cuyahoga River from Penn Central Railroad to upperproject limit, 22 feet; turning basin upstream from E.I. Dupont De Nemours And Company, Inc., Grassell Chemical Division Dock, 19,5 feet; Old River to Sand Products Corporation Dock, 23 feet; remainder of Old River to upper project limit, 14 feet. Project Depth: Lake Approach Channel, 29 feet; West Basin, entrance channel and west end of East Basin, 28 feet; remaining 3800-foot length of East Basin, 27 feet; 500-foot channel Ihrough East Outer Harbor, 25 feet; Job Feet; Old River to upper project limit, 14 feet. Project Depth: Lake Approach Channel, 29 feet; West Basin, entrance channel and west end of East Basin, 28 feet; remaining 3800-foot length of East Basin, 27 feet; 500-foot channel Ihrough East Outer Harbor, 25 feet; Job Feet; Old River form lakeward ends of the piers to immediately above junction with Old River, 27 feet; Old River to upper project limit, 27 feet; remainder of Cuyahoga River, 23 feet; turning basin upstream from E.I. Dupont De Nemours and Company, Inc., Grassell Chemical Division Dock, 18 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	18,113	2000	14,391	2003	12,621	2006	15,187
1998	17,865	2001	11,938	2004	15,775		
1999	15,540	2002	11,412	2005	13,641		
		1					

Treight Trailie, 2000 (thousand anon ton	Freight	Traffic,	2006	{thousand	short	tons)
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Commodity	Total	Foreign	Cana	adian
		Inbound*	Inbound	Outbound
Total, all commodities	3,720	582	3,017	121
Total coal 1200 coal coke	9 9		9 9	
Total petroleum and petroleum products Subtotal petroleum products 2330 distillate fuel oil 2340 residuat luel oil	132 132 63 69		132 132 63 69	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal iron ore and scrap 4410 iron ore Subtotal slag 4860 slag Subtotal other non-metal. min. 4900 non-metal. min. nec	2,077 1,648 878 771 176 176 78 78 174 174		1,956 1,648 878 771 176 176 78 78 53 53	121
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete 5290 misc. mineral prod. Subtotal primary iron and steel products 5320 i&s primary forms 5330 i&s plates & sheets 5360 i&s bars & shapes 5370 i&s pipe & tube 5390 primary non-ferrous metal products 5429 smelted prod. nec 5420 fab. metal products	1,484 904 887 177 472 181 248 35 7 0 108 108	564 	920 904 887 17 — — — — — — 16 16	
Total all manufactured equipment, machinery and products 7110 machinery (not elec) 7120 etectrical machinery 7900 manufac. prod. nec	1 0 0	1 1 0 0	0 0 	
Total unknown or not elsewhere classified 9900 นกหกown or nec	17 17	17 17		

	Commodity	Total	Laki	ewise			
	· · · · · · · · · · · · · · · · · · ·		Receipts	Shipments	Receipts	Shipments	Intraport
Total,	all commodities	11,467	7,299	836	7	3	3,322
Total 1200	coal coke	80 80	80 80				
Total Sub 2330 2340 2430 2540	petroleum and petroleum products total petroleum products distillate fuel oil residual fuel oil asphalt, tar & pitch petroleum coke	213 213 20 86 102 5	185 185 14 86 81 5	21 21 	777		
Total Sub 3276	chemicals and related products total other chemicals and related products metallic saits	0 0 0	0 0 0				

CLEVELAND HARBOR, OH Freight Traffic, 2006 - continued (thousand short tons)

				Domestic		
Commodity	Total	Lake	wise	Internal		
		Receipts	Shipments	Receipts	Shipments	Intraport
Total crude materials, inedible except fuels	11,064	6.934	808			3.322
Subtotal soil, sand, gravel, rock and stone	3,068	2,938	118			⁻ 11
4322 limestone	2,886	2,758	117	l —		11
4331 sand & gravel	181	180	1) —	<u> </u>	
Subtotal iron ore and scrap	7,128	3,938		<u> </u>		3,190
4410 iron ore	7,128	3,938	_			3,190
Subtotal slag	55		55			
4860 slag	55		55	—	_	_
Subtotal other non-metal, min.	814	57	635			122
4900 non-metal. min. nec	814	57	635		Processod &	122
Total primary manufactured goods	110		7		3	
Subtotal lime, cement and glass	95	88	7			
5220 cement & concrete	95	88	7			
Subtotal primary iron and steel products	15	12			3	
5312 pig iron	12	12				_
5330 i&s plates & sheets	3	—	—	_	3	
				t		

*Includes 13,436 tons of foreign inbound in-transits.

FAIRPORT HARBOR, OH

Section Included: Outer harbor and Grand River from mouth to and including Diamond Alkali Company Stone Dock, 1.5 miles. Controlling Depths: Entrance Channel, 24 feet; Outer Harbor, 24.0 feet; Grand River to upstream of Republic Steel, 19.0 feet; remaining length of Grand River to the upper project limit, 19 feet; except for 1,000 feet of the upstream end of the west side of the channel, 5 feet; turning basin, 15 feet. Maintenance Depths: Entrance channel and outer harbor, 25 feet; Grand River to upstream of Republic Steel, 24 feet; remaining length of Grand River to the upper project limits, 21 feet; turning basin, 18 feet.

Comparative	Statement of	Traffic ((thousand	short for	is)
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Year	Total	Year	Total	Year	Total	Year	Total
1997	3,296	2000	2,539	2003	2,526	2006	2,411
1998	2,880	2001	2,942	2004	2,772		
1999	2,553	2002	2,326	2005	2,452		
	· ·		· · · · ·				

	Can	adian		Don	nestic	
Commodity Grand Total	in housed	Quitheund	Total	Lak	ewise	Internal
	onuodin			Receipts	Receipts Shipments	
Total, all commodities	441	366	1,605	1,390	204	10
Total coal 23 1100 coal & lignite 23	11 N. (1999) 1993 - 1993	23 23			**************************************	
Total crude materials, inedible except fuels2,388Subtotal soil, sand, gravel, rock and stone1,8224322limestone1,6944331sand & gravel128Subtotal sulphur, clay and salt524782clay & refrac. mat.52Subtotal other non-metal. min.5144900non-metal. min. nec514	441 389 356 33 52 52 	343 12 12 	1,605 1,421 1,338 83 183 183	1,390 1,390 1,328 62 	204 21 21 21 183 183	10 10 10 10 10 10

ASHTABULA HARBOR, OH

Section Included: Outer harbor and Ashtabula River from mouth to and including city of Ashtabula Dock (Former Great Lakes Engineering Works Dock), 1.75 miles. Controlling Depth: Westerly portion of outer harbor to inner breakwater& approach channel to docks east of inner breakwater, 26.0 feet turning basin in front of inner breakwater 21.5 feet; the approach to the Penn. Central Railroad Company's slip and the lower 2,000 feet of the Ashtabula River, 23 feet; thence to car ferry slip, 10 feet; thence to a point 1,550 feet upstream from turning basin and including turning tasin, 3 feet. Project Depth: Entrance channel, 29 feet; westerly portion of outer harbor, 22 feet; channel from inside the Inner Breakwater to mouth of river and 2,000 feet upstream and approach channel to Penn. Central Railroad Company's slip, 18 feet; thence to a point 1,550 feet upstream from turning basin and including turning tasin, 16 feet.

Comparative Statement of Traffic (thousand short tons)									
Year	Total	Year	Total	Year	Total	Year	Total		
1997 1998 1999	11,929 15,602 10,495	2000 2001 2002	12,322 10,934 9,838	2003 2004 2005	10,427 10,938 9,714	2006	6,822		

Freight Traffic, 2006 (thousand short tons)

Foreign Canadian Domestic Commodity Grand Total Total Lakewise Inbound Inbound Outbound Receipts Shipments Total, all commodities 6,822 169 296 4,051 2,307 1,804 503 Total coal 813 4.873 4,051 9 311 503 1100 coal & lignite 4,873 9 4,051 813 311 503 Total chemicals and related products 4 Subtotal fertilizers Å ----3130 potassic fert. 4 4 ___ Total crude materials, inedible except fuels 1,944 Subtotal soil, sand, gravel, rock and stone 487 1,493 169 282 1,493 487 473 487 4322 limestone 473 473 4323 23 gypsum Subtotal iron ore and scrap 15 15 15 994 _ 994 994 4410 iron ore 994 994 994 Subtotal non-ferrous ores and scrap 80 non-ferrous scrap 248 165 83 4680 248 16583 *** Subtotal sulphur, clay and salt 82 clay & refrac. mat. -----4782 4 Subtotal slag 121 121 4860 60 slag Subtotal other non-metal. min. 121 121 13 90 78 13 4900 non-metal, min, nec 90 78 13 13 Total primary manufactured goods Subtotal primary iron and steel products 5312 pig iron 2 2 <u>, e (e (</u> <u>.</u> 20 **2** 2 2 -----pig iron 2

CONNEAUT HARBOR, OH

Section Included: Outer harbor and Conneaut River 2,450 feet upstream of the outer end of the West Pier. Controlling Depth: Westerly portion of outer harbor, 20.5 feet; access channel to city dock, 7.5 feet; easterly portion of outer harbor 23 feet. Inner Harbor, 28. feet; Project Depth: Easterly portion of outer harbor, 28 feet; westerly portion of outer harbor, 26 feet; westerly portion of outer harbor, 27 feet.

Year	Total	Year	Total	Year	Total	Year	Total
 1997 1998 1999	6,205 7,786 8,868	2000 2001 2002	10,603 10,485 10,474	2003 2004 2005	6,705 8,027 7,405	2006	7,368

		Can	adian		Domestic	
Commodity	Grand Total	Inbound	Outbound	Total	Lake	ewise
·		moound	Company		Receipts	Shipments
Total, all commodities	7,368	137	2,627	4,605	3,767	838
Total coal 1100 coal & lignite 1200 coal coke	3,334 3,271 63		2,507 2,444 63	827 827		827 827
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4323 gypsum Subtotal iron ore and scrap 4410 iron ore 4420 iron & steel scrap Subtotal other non-metal, min. 4900 non-metal, min. nec	4;029 520 389 130 3,479 3,372 107 31 31	137 	, 119 119 119 	3,772 400 389 11 3,372 3,372 — —	3,761 389 389 3,372 3,372 3,372 	

CONNEAUT HARBOR, OH Freight Traffic, 2006 - continued (thousand short tons)

	Can	adian			
d Total	Incound	Outbound	Total	Lake	ewise
	11100010	Outoound		Receipts	Shipments
6 6			6	6	
	d Total 6 6 6	d Total Inbound	d Total Inbound Outbound	d Total Inbound Outbound G 6 6 6 6	d Total Inbound Outbound Total Lake 6 6 6 6 6 6 6 6 6

ERIE HARBOR, PA

Section Included: Southerly side of Erie Harbor and Lake Erie water frontage from harbor entrance eastward to and including Sun Oil Co dock, 3.5 miles. Controlling Depth: Entrance channel, 29 feet; channel to easterly coal and ore docks, 27 feet; and 27 feet to the Port Authority Dock; harbor basin, 21 feet; westerly portion of harbor, 18 feet. Project Depth: Entrance channel, 29 feet; Approach Channel to easterly coal and ore docks, 28 feet; approach to Port Authority Docks, 27 feet; Harbor Basin, 21 feet; westerly portion of Harbor, 18 feet. Project Depth: Entrance channel, 29 feet; Approach Channel to easterly coal and ore docks, 28 feet; approach to Port Authority Docks, 27 feet; Harbor Basin, 21 feet; westerly portion of Harbor Basin, 18 feet. The approach channel from the 28 foot channel to and including turning basin at westerly docks has been authorized, but never completed and considered inactive at the present time.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	1,163	2000	1,501	2003	1,121	2006	1,074
1998	1,296	2001	1,159	2004	1,100		
1999	1,136	2002	1,362	2005	1,066		

Freight Traffic, 2006 (thousand short tons)

		Can	adian	Domestic
Commodity	Grand Total	Inbound	Outbound	Lakewise Receipts
Total, all commodities	1,074	175	1	898
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel Subtotal other non-metal, min. 4900 non-metal, min. nec	1,073 1,043 829 214 29 29	175 175 124 51 		898 869 705 164 29 29
Total all manufactured equipment, machinery and products 7900 manufact prod. nec	1 1		1 1	

BUFFALO HARBOR, NY (INCLUDED IN PORT OF BUFFALO)

Section Included: Outer harbor, Lackawanna Canal, Union Canal. Buffalo River from mouth to Conrail R. Y. Bridge, 5.5 miles. Buffalo Ship Canal, and Black Rock Canal to the Black Rock Lock. Controlling Depths: Outer area of south entrance channel, 30 feet; south entrance channel 29.0 feet; southern portion of outer harbor, 28 feet; 900 feet wide section adjacent to the south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet; 23 feet; hence 27 feet to the International Salt Company and 23 feet in the remainder of the outer harbor to the north; new north entrance channel, 25 feet; Black Rock Canal, 21 feet; Buffalo River Entrance, Buffalo River and Buffalo Ship Canal, 22 feet. Project Depth: Outer area of south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet, 23 feet; wide section adjacent to the south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet, 23 feet. Middle section adjacent to the south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet, 23 feet. Middle section adjacent to the south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet, 23 feet. Middle section adjacent to the south breakwater beginning 2,000 feet north of the south breakwater and proceeding northerly 4,200 feet, 23 feet. Middle section of the outer harbor, 27 feet; north outer harbor, 23 feet; north entrance channel, 25 feet; Buffalo River entrance, Buffalo River and Buffalo Ship Canal, 22 feet. Black Rock Canal, 21 feet.

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998	1,631 2,072	2000 2001	1,769 959	2003 2004	1,117 1,206	2006	1,345
1999	1,804	2002	1,288	2005	1,386		

		For	eign	Cana	adian	Domestic
Commodity	Grand Total	Inbound	Outbound	Inbound	Outbound	Lakewise Receipts
Total, all commodities	1,345	15		269	385	674
Total coal 1100 coal & lignite	521 521	1997 (1999 <mark></mark>		135 135	385 385	
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and stone 4322 limestone 4331 sand & gravel	315 315 233 82	884.9 82	<u></u>			315 315 233 82
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary non-ferrous metal products 5480 fab. metal products	124 124 124 0 0	0 0 0		106 108 106 —-		17 17 17 17 —

BUFFALO HARBOR, NY (INCLUDED IN PORT OF BUFFALO) Freight Traffic, 2006 - continued (thousand short tons)

		For	reign	Can	Domestic	
Commodity	Grand Total	Inhound	Outbourse	Inhound	Outbound	Lakewise
		moouno	Outoound	mboond	Outoounu	Receipts
Total food and farm products Subtotal grain 6241 wheat 6445 oats	385 385 124 261	15 15 15 —		27 27 27 27		342 342 81 261
Total all manufactured equipment, machinery and produ 7110 machinery (not elec)	icts 1 1		1 1			

PORT OF BUFFALO, NY

Section Included: Outer harbor, Lackawanna Canal, Union Canal, Buffalo River from mouth to Conrail RY Bridge 5.5 miles, Buffalo Ship Canal, Black Rock Canal, Black Rock Lock, Black Rock Channel, Niagara River, and Tonawanda to and including Buffalo Oil Terminal, Inc. Dock, located about 2,000 feel north of turning basin, Tonawanda inner Harbor, and Tonawanda Creek Channel from mouth to Main Street Bridge. Controlling and Project Depths: See Buffalo Harbor, Niagara River and Tonawanda.

Comparative	Statement of	Traffic	(thousand	short	tons)	ł
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Year	Total	Year	Total	Year	Total	Year	Total
1997	1,894	2000	2,169	2003	1,427	2006	1,558
1998	2,341	2001	1,215	2004	1,592		
1999	2,075	2002	1,686	2005	1,611		

		Fo	eign	Can	adian		Domestic	- ·
Commodity	Grand Total	Inhound	Outbound	Inhound	Outhound	Total	Lakewise	Internal
-		ιποφαίτα		mbouna	Cubbound		Receipts	Intraport
Total, all commodities	1,558	15	1	277	385	880	876	4
Total coal 1100 coal & lignite	579 579			135 135	385 385	58 58	58 58	
Total petroleum and petroleum products	155			8		147 147	143 143	4
2340 residual fue! oil 2430 asphalt, tar & pitch	135 8 147			8		147	143	4
Total crude materials, inedible except fuels Subtotal soil, sand, gravel, rock and	315 315				 	315 315	315 315	
stone 4322 limestone 4331 sand & gravel	233 82		_	_		233 82	233 82	_
Total primary manufactured goods Subtotal lime, cement and glass 5220 cement & concrete Subtotal primary non-ferrous metal products 5480 fab. metal products	124 124 124 0 0	0 		106 106 106 —	N 201722 <u>-</u> 	17 17 17 17	17 17 17 	
Total food and farm products Subtotal grain 6241 wheat 6445 oats	385 385 124 261	15 15 15 		27 27 27		342 342 81 261	342 342 81 261	
Total all manufactured equipment, machinery and products 7110 machinery (not elec)	-1 1		1					

OSWEGO HARBOR, NY

Section Included: Outer Harbor and Oswego River from mouth to Seneca Street, Controlling Depths: Lake approach channel, 27 feet; channel through outer harbor, 24 feet; east and west side of outer harbor, 21 feet; Oswego River channel, 24 feet. Project Depths: Lake approach channel, 27 feet; channel through outer harbor, 25 feet; lower 1,600 feet of Oswego River channel, 24 feet; remainder of Oswego River channel and Oswego Harbor, 21 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	640 471 805	2000 2001 2002	589 393 324	2003 2004 2005	715 856 670	2006	633

			Foreign	Canadian	Domestic
·	Commodity	Grand Total	Inbound	Inbound	Lakewise Receipts
Total,	all commodities	633	15	600	18
Total Sub 2340 2430 2540	petroleum and petroleum products total petroleum products residual fuel oil asphalt, tar & pitch petroleum coke	239 239 123 18 98		221 221 123 	18 18 18 18 18
Total Sub 4900	crude materials, inedible except fuels total other non-metal. min. non-metal. min. nec	29 29 29		29 29 29	
Total Sub 5220 Sub 5422 5480	primary manufactured goods total lime, cement and glass cement & concrete total primary non-ferrous metal products aluminum fab. metal products	360 336 336 23 14 9	9 9 	350 336 336 14 14	
7110 7900	all manufactured equipment, machinery and products machinery (not elec) manufac. prod. nec	5 4 1	5 4 1		

Other	Harbors and Waterways 2006	
Harbor or Waterway	Commodity	Thousand Short Tons
Project BARCELONA HARBOR, NY	No Commerce Reported	
CAPE VINCENT, NY	No Commerce Reported	
DUNKIRK HARBOR, NY	No Commerce Reported	
GREAT SODUS BAY HARBOR, NY	No Commerce Reported	
IRONDEQUOIT BAY HARBOR, NEW YORK	No Commerce Reported	
NIAGARA FALLS, NY	No Commerce Reported	
NIAGARA RIVER, NY (INCLUDED IN PORT OF BUFFALO)	1100 coal & lignite 2340 residual fuel oil 2430 asphalt, tar & pitch	58 8 147
	Total Tons(x1000) Total Ton-miles(x1000) Total Trip-ton-miles Internal and Intraport (x1000)	213 1,533 4
OGDENSBURG HARBOR, NY	4900 non-metat. min. nec	157
	Total Tons(x1000)	157
PORT CLINTON HARBOR, OH	No Commerce Reported	
ROCHESTER (CHARLOTTE) HARBOR, NY	5220 cement & concrete	164
	Total Tons(x1000)	164
SACKETS HARBOR, NY	2211 gasoline 3211 acyclic hydrocarbons 4189 lumber 5290 misc. mineral prod. 5330 i&s plates & sheets 5422 aluminum 7110 machinery (not elec) 7210 vehicles & parts 7900 manufac. prod. nec	
	Total Tons(x1000)	0
TONAWANDA HARBOR, NY (INCLUDED IN PORT OF BUFFALO) (PRINT ONLY)	No Commerce Reported	
VERMILION HARBOR, OH	No Commerce Reported	
WADDINGTON HARBOR, NY	No Commerce Reported	

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ILLINOIS RIVER, IL (INCLUDED IN THE ILLINOIS WATERWAY CONSOLIDATED)

Section included: Mouth of Illinois River, Grafton, IL to Lockport, IL, 291.9 miles. Maintained Depth: 9 feet.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	38,619 38,641* 40,685	2000 2001 2002	41,491 40,333 40,204	2003 2004 2005	39,494 40,209 38,395	2006	37,550

*Revised after original year of publication

Q	A			<u> </u>	Inte	ernal			
Commodity	Grand Total	Upbound	und Downbnd	Out Upbound	Downbnd	<u>Thro</u> Upboand	Downbrid	In Upbound	tra Downbrid
Total, all commodities	37,550	7,215	720	2,386	15,080	7,796	2,991	1,243	118
Total coal	3,395	1,135			े इ.स. े 1 3	943	86	1,212	4
1200 coal & lignite 1200 coal coke	2,576 819	1,127 8		2	2	229 714	2 85	1,212	4
Total petroleum and petroleum products Subtotal crude petroleum	5,591 20	972 20	153	780	1,898	722	936	18	112
Subtotal petroleum products 2211 gasoline	20 5,571	20 952	153	780	1,898	722	936	18	112
2221 gasoine 2221 destisene 2330 destiliste fuel oil	35	17	18			108	·		
2340 residual fuel oil	759	44		90	427	82	257 79	7	41
2429 naphtha & solvents	227 440	120	8 7	10	9 126	90 86	28		_
2430 asphalt, tar & pitch 2540 petroleum coke	1,141 1,364	125 9	31	140 529	548 337	88 57	168 390	12	60 11
2640 hydrocarbon & petrol gases, liquefied and gaseous	11		_	_		11			
2990 petro, products nec	348	328	—		7	6	8	_	_
Total chemicals and related products Subtotal fertilizers	4,021	2,198	60	105	404	1,034	214	Ģ	1949 - - -
3110 nitrogenous fert.	538	463		_	1	72	_	2	
3130 potassic fert.	32 127	126	_			5	·		_
3190 fert. & mixes nec Subtotal other chemicals and related products	270 3,055	265 1,318	60	105	403	5 951	214	4	
3211 acyclic hydrocarbons 3212 benzene & toluene	33 119	33	_			48			
3219 other hydrocarbons	735	656	23			37	19	_	
3260 organic comp. nec	30	16		105	389	401	139	_	
3273 ammonia 3274 sodium hydroxide	356 421	352 30			-	301	· _	4	
3275 inorg: elem., oxides, & halogen salts	60	16				44			_
3279 inorganic chem. nec	40 70	39 66				8 5	_		
3297 chemical additives 3299 chem. products nec	3 36	33				3	1		
Total crude materials, inedible except fuels	5,901	1,045	330	1,498	97	1,770	1,153	7	
Subtotal forest products, wood and chips 4161 wood chips	306 303	191 189				115	_		_
4190 forest products nec Subtotal pulp and waste paper	3	1				2			
4225 pulp & waste paper	4	4							
4322 limestone	2,477	299 52	320	1,487	16	349 26		7	
4323 gypsum 4331 sand & pravol	284			4 407	6	278			
4335 waterway improv. mat	2,109	247	320	1,487	9	40			
Subtotal iron ore and scrap	1,338	134	11	10	82	275	826		
4420 iron & steel scrap	1,036	129	11	10	82	238	59 767		
Subtotal non-ferrous ores and scrap	108	32				76			
4670 manganese ore	30 54	17		_		21 43			
4690 non-ferrous ores nec	16	4				12			
4782 clay & refrac. mat.	151	11	_	_	_	140 140	_		
Subtotal slag	443	13		2		101	327		
Subtotal other non-metal, min.	443 1.075	13 361		2	·	101	327		
4900 non-metal. min. nec	1,075	361			_	715			_
Total primary manufactured goods	5,539	1,767	164	1	112	3,191	304	· · · · · · · · · · · · · · · · · · ·	90. A <u>14.</u>
5220 cement & concrete	1,365 1.363	498 498	·	1	3	769 768	92 92		
5290 misc. mineral prod.	2	_			·····	2			

ILLINOIS	RIVER,	IL.	(INCLUDED	IN	THE	ILLINOIS	WATERWAY	CONSOLIDATED)
			Freight	Tra	iffic, 2	2006 - coi	ntinued	· · · ·
			- 01	יווחר	- hnea	chort tone	1	

(thousand short tons)

		l			Inte	rnei			
Commodity	Grand Total	Inbou	nd		ound	Thro	ugh	Inte	~
commonly	orana rotai	Liphound 5	Jownhad	Unhound	Downhad	Linhound	Doumbod	Linhound I	a Dowobied
	· -		DMIDBO	oppound	Downbod	oppound	Downond	Obponio I	jownona
Subtotal primary iron and staat products	2 057	4.054	400		407				
Subtotal primary from and steel products	. 3,957	1,254	160		107	2,225	211	1-10-0-0	_
5315 forro allous	107	2,143				/84			
5310 ieno alloys	167			_		180	1	—	
5320 ille plater & shoots	00		102	_	Z	57	457		
5350 los plates a sueels	901	53	103	_	0	631	157		
5270 its plas a shapes	006 ·	10	1		94	268	1	_	
5200 primary ite pee	407		=			003		·····	
Subjetal primary non ferrous matel and ducts	43/	28	54		5	297	53		
500total primary non-terrous metal products	213	13	4		z	197			
5422 Biummum	18			—		18	·	—	
5429 Smelleu prod. nec	47	10			2	45	_		•••••
Subtotal primary ward are duste	151	33	4			134			
Sublotal primary wood products	2	4		·					
5540 primary wood prod.	2	2	_	_					
Total food and form products	42 040	(11) (h)	0.000000000	s bei artaine	40 664			aane waa ay	take reak 🖌
Subtotal arain	13,040		n a China a tha tha tha tha tha tha tha tha tha		0.466	132	2/0	a ta a 'a - a	910-10 M Z-
6241 wheat	3,304	•			9,100		200		2
6344 corp	0.217	0	_		0.046		4/		
Subtotal oileande	3,217	0			9,040		101		2
6522 souheens	2,371	29			2,201	29	20		
6590 oilseeds sec	2,312	20		—	2,201	- 20	20		
Subtetal vacatable products	28	29			44	29			
6653 vegetable oile	34					21			
6654 vegetables & prod	21				4 7	21			
Subtotal processed grain and animal food	1 002			h	1 060		24		_
6747 grain mill producte	1,032	-			1,000		31		
6782 primal feed, prep	1 054		_		4 000		24		
Subtotal other agricultural products	1,034	52			1,022	82	51	_	
6861 sugar	107	52			20	77			
6865 molesses	62	60					-		
6885 stobolic beverance	29	JZ				. 4	0		
obod alconolic beverages	20				20	_			_
Total all manufactured equipment, machinery	5. 54	Street, St	12	<u></u>	6	1	28		
and products			780 Q.Q.Q.			The second s		Seren De	
7110 machinery (not elec)	19	4	12			,	0		
7500 textile products	1	1							
7600 rubber & plastic pr.	15	· · ·		_	5	_	10	_	
7800 empty containers	18						18		
7900 manufac, prod. nec	2				1	1			
	-	[•	•			
Ton-miles	7,498,992	1,281,960	59,819	115,472	2,780,973	2,268,553	870,467	111,826	9,922
(x1000)				•				-	
Tons All Traffic (x1000)	37	,550							
Ton-miles All Traffic (X1000)	7,498,	992							
Total Trip-ton-miles Internal and Intraport (X1000)	i 38,400,	, ST S							

CALUMET-SAG CHANNEL, IL (INCLUDED IN PORT OF CHICAGO, ALSO INCLUDED IN STATISTICS FOR ILLINOIS WATERWAY)

Section Included: Calumet-Sag Channel from its junction with Chicago Sanitary and Ship Canal to Blue Island, Little Calumet and Calumet Rivers to Turning Basin No. 5 (130th Street Bridge). Maintained Depth: 9 feet.

Year	Total	Year	Totai	Year	Total	Year	Total
1997 1998 1999	10,041 8,808* 7,449	2000 2001 2002	8,007 6,022 6,749	2003 2004 2005	6,576 8,560 8,483	2006	7,716

*Revised after original year of publication

				Inte	ernai	
	Commodity	Grand Total	Inbound	Outbound	Thr	ough
			Upbound	Downbrid	Upbound	Downbrid
Total, a	il commodities	7,716	411	30	5,439	1,836
Total 1100 1200	coal & lignite coal coke	939 226 713			934 225 710	5 2 3
Total Subt 2211 2330 2340 2350 2429 2430	petroleum and petroleum products otal petroleum products gasoline distillate fuel oil residual fuel oil lube oil & greases naphtha & solvents asphalt, tar & pitch	1,513 94 130 56 8 22 98	118 118 83 24 — —	8 8 	1,092 1,092 6 58 56 	295 295 5 48 14 78

CALUMET-SAG CHANNEL, IL (INCLUDED IN PORT OF CHICAGO, ALSO INCLUDED IN STATISTICS FOR ILLINOIS WATERWAY) Freight Traffic, 2006 - continued (thousand short tons)

internal Through Grand Total Inbound Outbound Commodity Downbnd Upbound Upbound Downbrid 1,080 petroleum coke hydrocarbon & petrol gases, liquefied and gaseous petro, products nec Total chemicals and related products Subtotal fertilizers i nitrogenous fert. 3130 phosphatic fert. potassic fert. fert. & mixes nec Subtotal other chemicals and related products other hydrocarbons 19 alcohols 3276 inorg. elem., oxides, & halogen salts metallic salts -----5 inorganic chem, nec -----chemical additives ____ chem. products nec Total crude materials, inedible except fuels 1,012 Subtotal forest products, wood and chips wood chips ----90 forest products nec Subtotal soil, sand, gravel, rock and stone limestone 4331 gypsum sand & gravel ____ waterway improv. mat **Š** Subtotal iron ore and scrap _ iron ore ____ 76 iron & steel scrap ____ Subtotal non-ferrous ores and scrap 50 aluminum ore 43 90 manganese ore 90 non-ferrous ores nec Subtotal sulphur, clay and salt -----..... 140 ____ 82 clay & refrac. mat. Subtotal slag 92 slag Subtotal other non-metal. min. ġ non-metal, min, nec Total primary manufactured goods 2,142 2,655 8 Subtotal time, cement and glass 20 cement & concrete ----misc. mineral prod. Subtotal primary iron and steel products 12 pig iron 15 ferro alloys 2 1,928 2,299 177 ____ 5320 ---i&s primary forms i&s plates & sheets ____ i&s bars & shapes 90 primary i&s nec Subtotal primary non-ferrous metal products _ ____ 5429 aluminum smelted prod. nec fab. metal products 120 Total food and farm products Subtotal grain ____ wheat corn Subtotal oilseeds ___ soybeans oilseeds nec 21 21 Subtotal vegetable products 53 vegetable oils Subtotal other agricultural products ____ sugar molasses ____ Total all manufactured equipment, machinery and products machinery (not elec) rubber & plastic or. _____ ----manufac. prod. nec 180,549 130,533 44.071 Ton-miles (x1000) 5.518

Tons All Traffic (x1000) 7,716 Ton-miles All Traffic (x1000) 180,549 Total Trip-ton-miles Internal and Intraport (x1000) 7,464,221

CHICAGO SANITARY AND SHIP CANAL, IL (INCLUDED IN PORT OF CHICAGO, ALSO INCLUDED IN STATISTICS FOR ILLINOIS WATERWAY)

Section Included: Chicago Sanitary and Ship Canal. Damen Avenue, Chicago to Lockport, IL. Maintained Depth: 9 feet at low water stages.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997	18,900	2000	17,983	2003	19,465	2006	19,927
1998	18,185*	2001	16,905	2004	20,571		
1999	17,500	2002	17,059	2005	21,044		

*Revised after original year of publication

					Int	ernal			
Commodity	Grand Total	Inbo Unbound	und Dowobud	Out	Downbrid	Thro	ugh Dowebod	Int Lipbound	ra Downbod
Total all commodifies	10 027	4 132	180	2 1 8 3	1 698	6 187	2 084	2 / / 1	61
									salis messing
Total coal 1100 coal & lignite 1200 coal coke	3,803 3,002 801	11 4 6		994 994	82 82	934 225 710	5 2 3	1,777	
Total petroleum and petroleum products	3,402	850	68	459	952	711	195	137	29
Subtotal petroleum products	3,402	850	68	459	952	711	195	137	29
2211 gasoline 2221 kerosene	115	21			2	87	5		
2330 distillate fuel oil	766	192	25	44	352	24	16	112	
2340 residual fuel oil	286	146		2	109	25		4	_
2350 lube on & greases 2429 naphtha & solvents	150	90	14	1	35	7			
2430 asphalt, tar & pitch	431	224	7		114	20	55	8	4
2540 petroleum coke 2640 bydrogerhan & patrol ances, liquofied and	1,506	83	22	412	312	533	109	10	26
gaseous	11				. —	11	_		
2990 petro. products nec	20	3			· 11	4	3		
Total chemicals and related products	1,559	869	76		227	302	49	5	32
Subtotal tertilizers	83 72	2	_			- 81 70	· ·····		
3120 phosphatic fert.	5			·····		5	·		
3130 potassic fert.	1	i —	_		·	1	—		·
Subtotal other chemicals and related products	1,476	867	76		227	221	49	5	32
3212 benzene & toluene	102	48			- 55				
3219 other hydrocarbons 3220 alcohola	107	34			· 42 . 179	186	49	4	28
3260 organic comp. nec	11	11							·
3274 sodium hydroxide	391	391			•	40			
3275 inorg. elem., oxides, & halogen saits 3276 metallic saits	44 111	25	76	,	· ·	19		1	·
3279 inorganic chem. nec	5				·	Ē	;		·
3297 chemical additives	3	1	—		- 1	1			
szaa citem, producis nec	3		—			-			
Total crude materials, inedible except fuels	7,005	1,554	30	1,727	368	1,717	1,117	492	QE 870
4161 wood chips	113	107				e			
4190 forest products nec	2			4 707		2	. –		
A322 limestope	4,375	933		1,/2/	320	904		492	
4323 gypsum	278					278			
4331 sand & gravel	4,060	933		1,727	320	595		486	
Subtotal iron ore and scrap	1.155	9	30		. 49	277	790		
4410 iron ore	297				·	238	59		·
4420 iron & steel scrap Subtotal pon-ferrous ores and scrap	858	9	30		- 49	40	731		
4650 aluminum ore	21					21			
4670 manganese ore	43				·	43	. —		
Subtotal sulphur, clay and salt	140				- <u>-</u>	140			· · · · · · · · · · · · · · · · · · ·
4782 clay & refrac. mat.	140					140)		
Subtotal slag	430					103	327		
Subtotal other non-metal, min.	715	505				210)	_	
4900 non-metal, min, nec	715	505				210)		
Total primary manufactured goods	3,712	825	6			2,410	468	V Procession	
Subtotal lime, cement and glass	912	481 ⊿⊵1	6			332	92		· · · ·
5290 misc, mineral prod.	2					- 2			·
Subtotal primary iron and steel products	2,600	295		3		1,930	371		
5312 pig Iron 5315 ferro allovs	786	_		3	· _	· 784 · 180	i <u> </u>	_	: _:
5320 i&s primary forms	58					57	' i	_	
5330 i&s plates & sheets	892	I 117	P	1		- 514	260	*****	

				CHICAGO	SANE	TARY	AND	SHIP	CANAL, IL			
(INCLUDED	IN	PORT	OF	CHICAGO,	ALSO	INCL	UDED	IN S	STATISTICS	FOR	ILLINOIS	WATERWAY)
				Fre	ight Ti	raffic,	2006	- con	itinued			•
					(tho	usand	short	tons))			

		Internal									
Commodity	Grand Total	Inbo	und	Outb	ound	Thro	ugh	Int	a		
		Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbnd	Upbound	Downbrid		
5360 i&s bars & shapes	271	124	_			145	2		_		
5370 i&s pipe & tube	8	8									
5390 primary i&s nec	403	46				251	106				
Subtotal primary non-ferrous metal products	201	49		<u> </u>		147	4				
5422 aluminum	18	13		· —		4	—		*****		
5429 smelled prod. nec	45	22				23					
5480 rap. metal products	139	14			—	120	4		-		
Total food and farm products	402	24			42	109	228				
Subtotal grain	208				8		200				
6241 wheat	47					*	47				
6344 corn	161				8		153				
Subtotal oilseeds	54				3	29	22				
6522 soydeans	25		—		3		22				
Subtetal vegetable and dusts	29	-				29	_				
Suprotal vegetable products	21					21					
Subtotal processed grain and animal feed	21					21			-		
6782 animal food prop	31				31						
Subtotal other aggicultural products	31		_		31						
6861 sugar	77	24				50	0				
6865 molasses	10	24				04 /					
						-	v				
Total all manufactured equipment, machinery	44				18	4	22				
7110 mechineny (not elec)	фіць 1 село село. А А	Sellivit's const	e a debido esterre	e e contra trajaj		ilet e tribu A	400 CONTRACTOR	, and a second second	ensection -		
7600 tubber & plastic or	14		_			2	12				
7800 empty containers	18				19		10	1	_		
7900 manufac, prod. nec	1		_		10				_		
	•			-	-	•					
Ton-miles (x1000)	288,539	37,700	1,986	72,268	14,258	80,081	28,484	53,163	601		
Tons All Traffic (x1000) Ton-miles All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)	, 19 288 13,336	927 539 758									

ILLINOIS WATERWAY, IL (CONSOLIDATED REPORT FOR ENTIRE WATERWAY)

Section Included: Illinois River, Grafton, IL to confluence of Desplaines and Kankakee Rivers thence Desplaines River to Lockport, IL; Chicago Sanitary and Ship Canal, Lockport, IL to Damen Avenue in Chicago; Chicago River (South Branch), Damen Avenue to Lake Street; Calumet-Sag Channel from its junction with the Chicago Sanitary and Ship Canai to Blue Island; and the Little Calumet River and Calumet River to Turning Basin No. 5 (130th Street Bridge). See reports for Illinois River, Chicago Sanitary and Ship Canal, Calumet-Sag Channel, and Chicago River, South Branch. Maintained Depth: 9 feet at low water stages.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
1997 1998 1999	42,994 41,795* 43,724	2000 2001 2002	44,231 43,490 43,032	2003 2004 2005	45,009 45,235 44,018	2006	43,583

*Revised after original year of publication

		Internal											
Commodity	Grand Total	Inbo	und	Outt	bound	Thro	wah	In	tra				
		Upbound	Downbrid	Upbound	Downbnd	Upbound	Downbrid	Upbound	Downbrid				
Total, all commodities	43,583	10,599	391	2,234	16,460	4,545	1,669	6,998	688				
Total coal	6,167	1,145	·	2	94	933	5	3.984	4				
1100 coal & lignite	5,348	1,131			2	225	2	3,984	4				
1200 coal coke	819	14		2	92	708	3						
Total petroleum and petroleum products	6,402	1,679	89	980	2,723	74	166	416	274				
Subtotal crude petroleum	20	20			·		=	<u> </u>					
2100 crude petroleum	20	20			—								
Subtotal petroleum products	6,381	1,659	89	980	2,723	74	166	416	274				
2211 gasoline	180	140			27	6	5	2					
2221 kerosene	35	17	<u>-</u>						18				
2330 distillate fuel oil	1,280	294	30	44	693		12	123	86				
2340 residual fuel oil	795	110		11	525	16		92	41				
2350 lube oil & greases	227	211			9				8				
2429 naphtha & solvents	459	261	14	1	155	7		13	7				
2430 asphalt, tar & pitch	1,176	229	7	20	662		55	139	64				
2540 petroleum coke	1,863	55	39	904	635	41	93	47	51				
2640 hydrocarbon & petrol gases, liquefied and gaseous	11	11			_								
2990 petro, products nec	355	331		_	17	4	3	P					

ILLINOIS WATERWAY, IL (CONSOLIDATED REPORT FOR ENTIRE WATERWAY) Freight Traffic, 2006 - continued (thousand short tons)

		Internal									
Commodity	Grand Total	Inbo Upbound	und Downbnd	Outb Upbound	ound Downbnd	Thro Upbound	ugh Downbnd	In Upbound	tra Downbnd		
Total chemicals and related products	4.168	3.113	87	1	594	147	25	120	81		
Subtotal fertilizers	967	884			1	80		2			
3110 nitrogenous tert. 3120 nhosobatic fert	538	466 27			1	69 5		2			
3130 potassic fert.	127	126	_	_	_	1	_	_	_		
3190 fert. & mixes nec	270	265	07			5	25	440			
products	3,201	2,230	07	1	592	0/	25	116	. 61		
3211 acyclic hydrocarbons	33	33					_		_		
3212 denzene & toluene 3219 other hydrocarbons	763	55 690	_		65 19	3	_		51		
3220 alcohois	1,157	439	11	1	504	34	25	113	30		
3260 organic comp. nec 3273 ammonia	30 356	27	_		3						
3274 sodium hydroxide	421	421	_			_		_	_		
3275 inorg. elem., oxides, & halogen salts	60 151	42				19					
3279 Inorganic chem. nec	70	66				5					
3297 chemical additives	3	3			1	_					
3299 chem, products nec	36	33	_	_		3			_		
Total crude materials, inedible except fuels	8,154	1,691	32	1,246	314	1,128	938	2,477	328		
Subtotal forest products, wood and chips 4161 wood chips	306	298				8		_			
4190 forest products nec	3	1				2	_	_	_		
Subtotal pulp and waste paper	4	4									
Subtotal soil, sand, gravel, rock and stone	4,697	320		1,242	16	330	_	2,470	320		
4322 limestone	78	52				26		·	-		
4323 gypsum 4331 sand & gravel	284 4.323	268		1.242	9	278	_	2.464	320		
4335 waterway improv. mat	11					5		6			
Subtotal iron ore and scrap	1,370	135	32	2	298	276 238	610 59	8	8		
4420 iron & steel scrap	1,069	130	32	2	298	38	551	8	8		
Subtotal non-ferrous ores and scrap	108	32				76	_				
4650 assimuting ofe	54	11	_			43	_				
4690 non-ferrous ores nec	16	4			_	12			•		
4782 clay & refract mat	1 51	11	_			140					
Subtotal slag	443	14		2		100	327				
4860 slag Subtotal other non-metal min	443	14		2		100 199	327				
4900 non-metal. min. nec	1,075	876				199	_				
Total primary manufactured goods	5,591	2,848	170	5	113	2.152	302	<u>werse de </u>	<u></u>		
Subtotal lime, cement and glass	1,413	1,234	6	1	3	76	92				
5220 cement & concrete	1,412	1,234	6	1	3	74	92				
Subtotal primary iron and steel products	3,960	1,550	160	3	108	1,929	210		•		
5312 pig iron	1,929	1,144	_	3		782					
5320 i&s primary forms	68	8	1		2	57			_		
5330 i&s plates & sheets	951	171	103	1	6	514	157		******		
5370 i&s pipe & tube		8		—							
5390 primary i&s nec	437	74	54		6	251	51	_			
subtotal primary non-terrous metal	215	62	4		2	147					
5422 aluminum	18	13	_			4		· —			
5429 smelled prod. nec 5480 fab. metal products	47	22	4		-2	23	· _				
Subtotal primary wood products	2	2									
5540 primary wood prod.	2	2				_					
Total food and farm products	13,048	117			12,599	109			2		
Subtotal grain 6241 wheat	9,384 167	8			9,173		200		2		
6344 com	9,217	8			9,054		153	. —	2		
Subtotal oilseeds	2,371	29			2,290	29	22				
6590 oilseeds nec	2,312	29	_		<u>د,2</u> 30	29					
Subtotal vegetable products	34	1			11	21		·			
6654 vegetables & prod.	27	_		_	47	21					
Subtotal processed grain and animal feed	1,092	2			1,090			·			
6747 grain mill products 6782 animal feed, prep.	38 1.054	,			38 1.053		_				
Subtotal other agricultural products	167	76			33	58		·			
6865 molasses	77 63	24				54					
6885 alcoholic beverages	28				28			·			
		1									

ILLINOIS WATERWAY, IL (CONSOLIDATED REPORT FOR ENTIRE WATERWAY) Freight Traffic, 2006 - continued (thousand short tons)

		Internal										
Commodity	Grand Total	Inbo	und	Qutt	ound	Thr	ough	Int	ra			
		Upbound	Downbnd	Upbound	Downbrid	Upbound	Downbrid	Upbound i	Downbnd			
Total all manufactured equipment, machinery and products	- 54	5	12		23	4	10					
7110 machinery (not elec)	19	4	12	—		2	0					
7600 rubber & plastic pr.	15		_		5		10					
7900 manufac, prod. nec	18 2	_			18 1	1			_			
Ton-miles (x1000)	7,980,052	2,274,896	24,773	100,870	3,184,533	1,476,888	542,300	316,549	59,244			
Tons All Traffic (x1000) Ton-miles All Traffic (x1000) Total Trip-ton-miles Internal and Intraport (x1000)	4: 7,98/ 38,55	3,583 0,052 9,924										

Section 2 Trips and Drafts of Vessels

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U.S. ARMY CORPS OF ENGINEERS

					\	orait in ieet,							
Draft		Self P	ropelled Ve	ssels	Non-Self Ves	Propelled sels		Self F	ropelled Ve	ssels	Non-Self Propelled Vessels		
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	
WAUKEGA	N HARBO	R, IL	Inhou						.				
Grand	460	25	muqu	110					Outbou	na			
DOMESTIC	100	35		54	61		160	36		63	61		
Total	160	25		E 4	04	1	400	1		~~	aa		
18	13	1		11 1	1	_	160	30		63 11	2		
16	22 63	8		23	4 32	_	41 47	29		5 23	22	_	
15 13	1		_	_	- 2		3	2			1		
≤ 12	59	12		25	22		50	3	Prov.146	24 Total	23 trips:	320	
CHICAGO	RIVER (M/	AIN AND N	ORTH BRA	NCH), IL					_ .				
Grand	4 540		Орвои	10					Downbou	na			
DOMESTIC	1,513			359	1,137	17	1,484	• 1		349	1,130	4	
Total ≤ 12	1,513 1,513			359 359	1,137 1,137	17 17	1 ,484 1,484	1 1	_	349 349	1, 130 1,130	4	
										i otai	trips:	2,997	
CHICAGO I	RIVER, SC	OUTH BRAN	ICH, IL Upbou	nd					Downbou	nd			
Grand Total	3,125	1		439	2,681	4	3,105	i		406	2,682	17	
DOMESTIC													
Total ≤ 12	3,125 3,125	1		439 439	2,681 2,681	4 4	3,105 3,105			406 406	2,682 2,682	17 17	
										Total	I trips:	6,230	
LAKE CAL	UMET, IL		Upbou	nd					Downbou	nd			
Grand Total	1,387	36	_	463	829	59	1,215	56		427	675	57	
FOREIGN													
Total	14	4		5	1	4	39	25		8	3	3	
25	_			_		=	1				_		
24	3				1	2	5	3			1	1	
22 21	2	2	<u> </u>			=	6 7	67					
20 19	 1		_		_	_	2 3	1			1		
18		•			. —		5	1	_	3	—	1	
16	1					_1	2	'	_	1		1	
	51			4	·	11	a	I —		4	1		
Total	1 373	32		458	828	55	1 176	21		410	672	54	
23 22	1	1											
21	2	1			1		2	2					
19					·····.		2				2		
18 17	14 1			13 1	1			_1		15	2	_1	
16 15	15 1	13	_		1	_1	8	8	_	 1			
14	i				1		' >'					_	
≤ 12	1,309		_	439	816	54	1,106	1	_	_397	655	53	
										iotal	trips:	2,602	

Trips and Drafts of Vessels, 2006

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		Self Pi	ropelled Ves	sels	Non-Self I	Propelled		Şelf P	ssels	Non-Self Propelled		
Draft	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
CALUMET	T HARBOR	AND RIVER	, IL AND I Upbour	N nd					Downbou	ind		
Total	8,851	412	2	4,584	3,628	225	7,663	344	2	3,708	3,402	207
FOREIGN												
Total 27 266 25 24 23 22 21 20 19 18 17 16 15 14 ≤ 12	222 25 18 9 14 22 40 39 16 8 9 39 16 39 11 2 5 6	181 25 18 9 14 20 38 36 11 7 2 1 1	2 	23 2 1 6 	5 	11 1 3 1 2 3 1 1	130 18 22 11 14 18 9 4 4 4 5 2 6 5 5 1 7 7	94 18 20 10 14 14 4 2 	2 1 1 	18 	4 	12
DOMESTIC	;											
Total 26 25 24 23 22 20 19 18 17 16 15 15 14 13 ≤ 12	8,629 15 11 22 33 34 53 53 53 26 56 56 56 56 56 56 56 56 56 56 56 56 56	231 3 10 29 23 50 38 18 2 6 8 		4,561 12 17 13 36 3 5 130 4,345	3,623 1 3 4 11 3 15 12 6 7 11 2 3 10 3,535		7,533 14 6 29 21 30 26 19 27 90 62 80 10 80 10 80 10 8 994	250 1 1 11 11 22 25 10 24 59 42 31 6 1 1 3		3,690 13 23 10 35 3 5 117 3,484 Tota	3,398 2 18 10 8 10 8 1 9 3 6 10 12 1 1 3,317 1 trips:	195
PORT OF	CHICAGO	, IL	inbour	nd					Outbou	Ind		
Grand Total	18,296	1,045	2	6,288	9,351	1,610	18,291	1,124	2	6,429	9.084	1.652
FOREIGN					-	-						
Total 27 26 24 23 22 21 19 18 18 17 16 15 14 2 21 21 21 21 21 21 21 21 21 21 21 21 2	130 18 22 11 14 18 9 4 4 4 5 5 6 5 7 7	94 18 20 10 14 14 8 4 2 	2 1 1 	18 	4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12 2 1 1 1 1 2 1 3	222 25 18 9 14 22 40 39 16 8 9 3 11 2 2 	181 25 18 9 14 20 38 36 11 7 2 1 1 -	2 ¹ 	23 	5 	11

Trips and Drafts of Vessels, 2006 (draft in feet)

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·		Solf P		scala	Non-Self I	Propelled				Non-Self Propelled				
Draft	Total		Tanker	Tow or	Vese Doy Cargo	Tanker	Total	Dry Carao	Tankor	Tow or	Vess Dev Correc	sels Tookor		
		Dry Cargo		Tug	Dry Cargo	Idikes	TOtal	Dry Cargo		Tug	Dry Cargo	Tanker		
PORT OF C	Inbound Outbound													
DOMESTIC														
Total 26 25 24 23 22 20 19 18 17 16 15 14 13 ≤ 12	18,166 14 6 29 22 40 27 23 27 88 59 66 9 9 10 118 17,628	951 1 4 12 32 26 14 24 57 40 15 5 1 709		6,270 13 	9,347 2 18 10 8 1 9 3 6 9 9 12 1 1 9,267	1,598 	18,059 15 11 22 33 34 55 53 29 30 28 56 58 58 58 10 156 17,527	943 943 5 3 10 19 2 19 3 5 5 52 3 38 3 7 3 7 3 7 3 17 4 7 3 7 3 7 3 17 4 17 7 13		6,406 12 	9,079 1 3 4 11 3 15 12 6 8 11 2 3 10 8,990 trips:	1,641 		
INDIANA HARBOR, IN														
Grand Total	3.011	355		1.505	961	190	2,996	5 340		1.502	958	196		
FOREIGN	•1= • •			.,			_,			,,				
Total 27 26 23 23 22 21 20 19 18 17 16 ≤ 12	24 88 	18 8 8 1 1 1 1 1		3 - -		3 		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		4 		3 		
DOMESTIC														
Total 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 13 ≲ 12	2,987 1 13 88 148 86 11 4 1 5 2 2 2 2 5 4 2 30 30 30 2,501	337 1 10 83 148 73 148 7 4 1 4 2 1 3 		1,502 	961 3 5 	187 	2,975 	$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1,498 	958 2 5 3 1 1 1 6 	193 		

Trips and Drafts of Vessels, 2006 (draft in feet)
Draft		Self P	ropelled Ves	sels	Non-Self F Vess	Propelled		Self P	ropelled Vess	eis	Non-Self F	Propelled
Uian	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
BURNS W	ATERWAY	HARBOR,	IN						.			
Grand Total	1,065	280		376	361	48	947	208	Outbour	336	361	47
FOREIGN												
Total 27 26 25 24 23 22 21 20 19 17 16 15 13 ≤ 12	162 19 11 22 19 29 26 8 8 8 2 1 5 1 1 5	145 19 11 29 29 26 8 8 2 1 1 1		8 		8 	76 6 1 3 7 12 17 17 14 7 1 7 12 17 12 17 12 17 2	73 6 6 1 3 7 12 17 14 7 7 				1
DOMESTIC												
Total 31 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 ≤ 12	903 18 49 18 25 6 4 1 3 2 5 3 10 5 3 7 35 713	135 		368 	360 	40 	871 1 1 1 47 35 35 222 17 8 35 32 22 27 17 8 35 35 35 35 22 27 17 8 5 5 679	135 1 1 1 1 47 3 3 1 2 3 1 12 3 1 12 3 1 12 3 1 12 3 1 12 3 1 12 3 1 12 1 1 1 1		335 	360 	41
CHICAGO (16 feet	HARBOR,	IL										
Grand Total MICHIGAN	865 CITY HAF	706 180R, IN	Upboun 	d 99	50	10	861	706	Downboun	d 94 Total	50 trips:	11 1,726
NO VI	essel Trip:	s Reported										
BUFFINGT (27 feet Grand Total GARY HAR (31 feet	ON HARB and less) 55 (BOR, IN and less)	DR, IN 55	Inbour: 	d 			51	51	Outbourn	 Total	trips;	<u> </u>
Grand Total	890	167	Inbound —-	d 393	325	5	832	154	Outbound	343 Totai	330 trips:	5 1,722

Droft		Self P	ropelled Ves	sels	Non-Self F Vess	Propelled sets		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
TWO HARE	BORS (AG	ATE BAY),	MN Inbour	nd					Outbou	ınd		
Total	336	269	<u> </u>	34	33		340) 262		36	42	
FOREIGN												
Total 28 27 24 23 22 21 20	28 1 7 8 3 7 2	23 1 7 3 3 7 2		5 5 5			2 1 1 1					
DOMESTIC												
Total 31 29 28 27 26 25 24 23 22 21 20 19 18 17 16 ≤ 12	308 	246 		29 	33 		3388 3 755 1988 9 4 1 1 1 36 36 1	260 3 1 1 8 72 160 9 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		36	42 1 3 38 -	

DULUTH-SU	PERIOR H	ARBOR, MI	N AND WI Inbound	ť					Outbound	ł		
Grand Total	1,310	1,234		39	32	5	1,259	1,172		44	39	4
FOREIGN												
Total 30 28 27 26 25 24 23 22 21 20 19 18 18 17 16 15 14 13 ≤ 12	531 	509 		13 1 1 3 	8 		474 1 12 346 52 10 9 2 10 4 4 1 4 10 4 1	452 1 12 341 52 10 9 2 2 10 4 4 1 2 1 1 1		14 5 	8 	
DOMESTIC												
Total 31 29 28 27 26 25 24 23 22 21	779 1 5 4 32 58 61 204 34 13	725 1 3 2 18 57 60 200 27 13		26 	24 2 2 5 1 1 4 7	4 	785 53 277 177 29 49 22 31 28	720 50 273 145 29 48 21 31 28		30 	31 3 4 21 1 1	4

Droft		Self P	ropelled Ves	sels	Non-Self J Vess	Propelled sels		Self P	ropelled Vess	seis	Non-Seif f	Propeiled
Dian	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
DULUTH-SU	JPERIOR I	IARBOR, N	IN AND Wi	continu d	ed				Outbound	d		
DOMESTIC												
20 19 18 17 16 15 14 ≲ 12	28 264 25 4 30 2 6 7	28 253 24 4 27 		1 1 1 2 2	2 		23 63 9 4 4 2 3 11	23 49 9 4 2 - - 7		 14 1 2 2 Tota	 I trips:	 2,569
TACONITE	HARBOR,	MN										
Grand	36	26	Inboun	d			-		Outbound	d		
DOMESTIC	30	30			_		39	1 39		-		
Total 28 27 26 23 21 18	36 1 9 6 14 3	36 1 9 6 14 3 3					39 8 12 1 15 	39 8 12 1 15				
PRESQUE Grand Total	ISLE HAR 385	BOR, MI 333	Inboun 	d 25	27		378	327	Outbourn	d 26	25	
FOREIGN												
Totai 24 23 22 21 20 19 17 ≤ 12	187 7 30 96 34 13 3 3 1	181 7 30 96 34 10 3 1		3 	3 		130 45 67 18 	130 45 67 18 —				
DOMESTIC												
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 ≤ 12	198 23 4 6 15 3 1 14 120 5 1 3	152 21 3 4 6 15 3 — 14 78 4 1 3		22 1 	24 2 		248 32 105 27 6 	197 32 91 19 1 31 		26 2 	25 14 6 5 	 763

					Trips and [(Drafts of Ves draft in feet	sseis, 200()	6				
D#		Self P	ropelled Ves	ssels	Non-Self Ves	Propelled		Self F	Propelled Ve	ssels	Non-Self Ves	Propelled
Dram	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
MARQUET	te harbo	DR, MI	Inbou	nđ					Outbou	nd		
Total	54	34		11	9	<u> </u>	4	3 28		7	8	
FOREIGN												
Total 24 23 22 21 20 19	11 3 4 1 2 	6 2 4 		3 1 	2 — 1 1 —							
DOMESTIC								1			1	
Total 26 25 23 22 21 19 18	43 8 1 13 13 7 1	28 1 7 12 7 1 		8 	7 6 1 		4 	$ \begin{array}{ccccccccccccccccccccccccccccccccc$		7 7 Tota	8 — 6 2 — 1 trips:	
DRUMMON	ID ISLAND	, MI							0.4			
Grand Total	19,959	19,927		nu 15	17		16,76	0 16,730		12	: 18	
FOREIGN	001				I		I				1	
Totai 25 24 23 22 21 20 19 18 18	26 	24 1 5 1 4 6 2 3 2		2 				6 16 2 2 3 3 9 9 1 1 - - 1 1 1 1				
DOMESTIC												
Total 26 25 24 23 22 21 20 19 18 17 15 5 ≤ 12	19,933 13 	19,903 — — — — 11 9 11 19,871		13 13 	17 		16,74 1 2 1 1 1 1 1 6,68	4 16,714 2 2 2 2 2 2 8 18 1 1 - - - - 2 2 2 2 2 2 3 18 1 1 - - - - 2 16,682		12 12 	18 10 10 8 10 8 -	 36,719
ST. MARY	S RIVER, N	AI	Unhou	nd					Downboy	nd		
Grand Total	80,411	79,957		259	185	10	46,24	6 45,840	5	228	162	11
FOREIGN Total 30 29 28 27	1, 453 2 1 12	1,222 — 2 1 10		155 1	70 	6 	1,11: 	2 903 1 1 3 13 1 414	5	135 	5 62 	7

Draft		Self Pi	ropelled Ve	ssels	Non-Self I Vess	Propelled sels		Self P	ropelled Ve	ssels	Non-Self F Vess	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ST. MARYS	RIVER, MI	- continue	ed Upbou	nd					Downbou	ind		
FOREIGN												
26 25 24 23 22 20 19 18 17 16 15 14 13 ≤ 12	22 66 151 282 241 162 158 68 54 28 66 92 4 9 35	22 66 149 271 239 160 98 68 38 68 20 20 44 3 9 20 44 3 9 2		2 8 1 57 15 15 15 1 44 2 1	2 2 2 1 3 4 1 46 10	¹ ¹ ³	112 47 73 101 68 38 64 43 18 10 47 7 7 2 2 25	98 42 71 94 64 33 48 9 4 8 — 1 1 2		1 1 5 9 34 14 45 45 15	14 5 3 7 1 1 5 3 7 1 1 1 5	2 1 2 1 2 1 2
DOMESTIC												
Total 31 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 3 ≤ 12	62,059 1 - 3 5 69 64 109 304 99 19 23 403 148 322 46 3 6 1 60,724	61,836 1 3 5 31 62 107 281 41 19 23 363 106 27 43 1 60,722		104 	115 		62,033 3 1 96 517 440 50 50 22 11 1 12 16 71 1 25 3 3 2 60,705	61,836 3 1 91 496 360 45 49 22 11 12 16 21 6 21 1 6 20 1 1 6 20 1 1 6 20 1 1 1 21 1 21 1 21 21 22 1 1 21 2		93 14 	100 	4
ST. MARYS Grand	S FALLS C	ANAL, MI A	AND SAUL Upbou	T STE. MA nd	ARIE, ONTA	rio ship (CANAL, C	N (INCLUDE	D IN ST. N Downbou	MARYS RIV	/ER)	
Total	2,321	1,991		190	134	6	2,152	1,818	3	187	139	5
Total 30 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 ≤ 12	1,092 1 10 12 52 137 206 162 130 121 47 19 23 64 89 4 9 6	925 		111 1 2 2 3 3 3 3 3 1 1 3 1 3 1 _	54 	2 	818 1 12 3900 70 14 64 85 40 14 22 39 5 6 45 45 45 45 45 5 5 5 6 6 11 11 5	679 1 12 365 60 13 62 82 39 14 16 7 2 4 4 1 1 1	3	95 	40 20 10 1 1 2 1 2 2 2	1

						draft in feet	.)					
Draft		Self F	Propelled Ve	ssels	Non-Self	Propelled sels		Self P	ropelled Ve	essels	Non-Self Ves	Propelled sels
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ST. MARYS	FALLS C	ANAL, MI /	AND SAULT Upbou	f STE. MA	RIE, ONTA	rio ship c	CANAL, CI	N (INCLUDE	Din ST. M Downbor	IARYS RIV	/ER) - contii	nued
DOMESTIC												
Total 31 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 15 14 13 25 22 21 20	1,229 1 	1,056 1 3 31 61 105 268 399 18 222 352 97 16 43 1 1 4		79 	80 		1,333 99 51 44(55 50 22 21 11 11 11 11 11 22 24 24 24 24 24 24 24 24 24 24 24 24	4 1,139 3 3 1 1 5 91 7 496 0 360 0 45 2 22 1 11 2 12 6 16 5 2 3 1 2 22 3 1 2 2 3 1 5 2 3 1 2		92 	2 99 	4
GRAYS RE	EF PASS	AGE, MI	Орбол	Ind					Downbo	นกต่		
Grand Total	1,184	707		235	155	87	78	1 364	,	189	142	86
FOREIGN												
Totai 24 23 22 21 20 19 18 ≤ 12	46 2 2 17 8 5 2 4 6	37 2 2 17 8 4 2 2		6 	3 — — — — — — — — — — — — — — — — — — —			B 17 1 1 3 3 4 4 8 7 1 1 - -				
DOMESTIC												
Total 25 24 22 21 20 19 18 17 16 15 14 13 3 ≤ 12	1,138 43 51 163 91 37 83 155 72 91 180 37 10 200 105	670 42 50 160 56 37 78 48 48 45 17 4 4 		229 	152 1 35 35 4 2 13 52 3 3 3 3 3 3 3 3	87 	76 7 11 8 6 6 2 2 3 3 2 2 4 4 4 4 4 100 2 1 11 10	3 347 68 4 68 70 2 58 3 46 9 24 6 27 54 13 2 14 4 14 14 14 9 2 1 16 6 1 1 1		188 	3 142 6 44 24 24 17 5 5 7 5 9 3 1 1 4 4 4 4 4 4 4 4 22 at trips:	86
CHARLEV	DIX HARB	OR, MI	1						0.0			
Grand Total	596	460		ind 69	67		59	9 460	Outbo	una 71	68	
FOREIGN												
Total 23 22 21 20 18	13 1 	12 1 4 7		1 1				6 3 1 1 1 1 1 1 3 1				

Trips and Drafts of Vessels, 2006

Draft		Self F	Propelled Ves	sels	Non-Self Ves	Propelled sels		Self F	ropelled Ve	ssels	Non-Self Ves	Propelled sels
	Total I	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
CHARLEVO	IX HARBOR	R, MI - coi	ntinued เกbou	nd					Outbou	ind		
DOMESTIC												
Total 23 22 21 20 19 18 17 16 15 14 13 12 10 8	583 4 3 2 1 1 64 2 15 2 110 1 110 1 378	448 4 3 2 		68 	67 1 1 2 61 		593 4 355 11 68 11 69 4 2 5 2 2 5 2 4 378	457 		68 64 4 Tota	68 2 31 4 4 6 10 3 2 2 4 1 trips:	 1,195
MANISTEE	HARBOR,	MI	Inhou	ad a					Outhou			
Grand Total	49	46			3		42	39		.	3	
FOREIGN											-	
Total 24 23 22 21 20 19 18	16 3 4 3 4 2	16 3 4 3 4 2					11 3 2 1 3 1 3	11 1 3 2 1 3 1				
DOMESTIC												
Total 23 22 21 20 19 18 17 15	33 1 4 15 6 2 5 	30 1 4 15 3 2 5 			3 		31 — 3 13 12 3	28 — 3 13 9 3		 Tota	3 	 91
LUDINGTO	N HARBOR	, MI	inbour	hd					Outbou	Ind		
Grand Totai	418	258			17	54	428	257		93	17	61
FOREIGN												
Totai 25 24 23 22 21 19 18 17 16 15 ≤ 12	43 52 1 12 18 15	7 52 		18 		18 	51 — 1 1 1 3 2 17 5 19 2	8 		20 		22 16 3 3

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					Trips and D	orafts of Ves draft in feet	seis, 2006)	3				
Droff		Self P	ropelled Ves	sels	Non-Self I Ves	Propelled sels		Self F	ropelled Ve	ssels	Non-Self Ves	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
LUDINGTON	N HARBO	R, MI - cont	inued Inboui	าด้					Outbou	und		
DOMESTIC												
Total 25 24 23 21 19 18 17 16 15 14 13 ≤ 12	375 1 5 247 2 1 9 13 11 10 76	251 1 5 244 — —		71 9 13 11 10 28	17 	36 - 	3777 	249 		7: 	3 16 	39
MUSKEGO	n harbo	DR, MI	Inpon	nd					Outbou	upd		
Grand Total	170	97		34	37	2	147	82		30) 34	ť
FOREIGN												
Totai 26 25 24 23 22 21 20 19	18 3 2 8 1 1 	18 3 2 8 1 1 					13 4 5 1 1 2	13				
DOMESTIC												
Total 27 26 25 24 23 22 21 20 19 18 17 16 15 13 3 ≤ 12	152 11 16 5 8 7 6 4 12 13 3 3 3 30 5 10 15	79 11 15 4 8 7 6 3 11 - 3 1 3 1 3 3		34 	37 1 1 1 6 2 3 14 3 6	2 2	134 	69 		30 	34 	1
GRAND HA	VEN HAP	REOR AND	GRAND RIV	ER, MI					Doughou	und		
Grand Total	123	69		22	32	<u> </u>	108	58		20) 30	Sec. 10
FOREIGN												
Total 25 24 23 22 21 20 19 18 ≤ 12	35 1 4 3 7 8 7 1 3 1	24 1 4 3 6 5 4 1 		7 ³ ³	4 1 2 1		25 — — 6 4 5 4 5 1	22 64 33 45 5				

U.S. ARMY CORPS OF ENGINEERS

					(+							
Draft		Self Pro	pelled Vess	els ^{(†}	Non-Self P Vess	ropelled els		Self P	ropelled Ve	ssels	Non-Self F	Propelled
Dian	Total Dry	/ Cargo	Tanker	Tow or Dr Tug Dr	y Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
grand ha	VEN HARBOR	R AND GR	AND RIVER	R, MI - cont I	tinued				Downbou	ind		
DOMESTIC												
Total 25 24 23 22 21 19 18 17 16 15 14 13 ≤ 12	88 311 162 81 161 161 14 22 7 4	45 3 1 10 6 5 10 3 10 3 10 3		15 	28 		83 9 12 21 10 21 21 1 21 1 1 21 19 19	36 		18 13 5 Total	29 	 231
HOLLAND	HARBOR, MI											
Grand			Inbound						Outboa	ind		
Total FOREIGN	56	32		12	12		55	27		14	14	
Total 24 22 20 16 10		1					5 1 1 1 2			2 2	2 — 1 1	
DOMESTIC												
Total 23 21 19 18 17 15 14 13 12 10 9	55 2 4 19 8 1 4 1 3 12 12 1 	31 2 4 16 2 1 4 1 		12 	12 3 6 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1		50 	26 8 3 		12 	12 1 1 1 1 1 1 1 1 1 1 1 1 1	
ST. JOSEF	H HARBOR,	MI	Unhound	5					Downboi	und		
Grand Total FOREIGN	100	33		36	31	Labor	89	32		30	27	
Total 21 20 19	4 1 3	4 1 3 					1 1					
DOMESTIC												
Totai 23 20 19 18 17 16 15 13 ≤ 12	96 2 18 2 7 8 30 1 1 27	29 2 13 1 2 		36 2 6 17 1 10	31 5 1 3 2 13 1 6		88 	31 4 1 7 15 - 1 3		30 2 2 5 18 1 1 1 1 1	27 	 189

Draft		Seif P	ropelled Ve	ssels	Non-Self I Ves	Propelled sels		Self F	ropelled Ve	ssels	Non-Self Ves	Propelled
Diast	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
MILWAUKI	ee harbo	R, Wi										
Grand Total	1,265	242	Inbou	nd 568	426	29	1.238	235	Outbou	nd 550	426	27
FOREIGN							•					
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14	128 1 5 200 6 13 206 13 206 11 14 3 4 22 11 1 1	128 5 20 6 13 20 26 11 14 3 4 2 1 1 1					121 	121 17 10 4 12 7 32 23 9 3 1 1 1 1				
DOMESTIC												
Total 26 25 24 23 22 21 20 19 18 17 16 15 14 13 2 4 12	1,137 3 11 61 35 6 4 26 13 45 24 70 14 102 722	114 3 10 34 24 5 2 11 9 4 10		568 	426 	29 1 15 29 1	1,117 — 1 3 — 9 32 55 18 93 32 55 18 93 13 1 125 761	114		550 — — — 300 11 41 12 12 88 367 Tota	426 	27
MANITOW	OC HARBO	DR, WI	lahau	- d					Outhou			
Grand Total	560	253		176	131		597	253		213	131	
DOMESTIC												
Totai 21 20 19 18 17 16 15 13 ≤ 12	560 5 18 244 30 1 7 2 68 185	253 5 242 2 2 1 1		176 29 1 63 83	131 		597 5 1 244 26 3 1 95 222	253 5 244 		213 	131 1 	1,157

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Death		Self P	ropelled Ve	ssels	Non-Self F	Propelled		Self P	ropelled Ve	ssels	Non-Self F	Propelled
	Total (Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
GREEN BA	AY HARBOR	r, WI	Upbou	nd				-	Downbou	ba		
Grand Total	262	185	8	35	32	2	228	156	7	32	31	2
FOREIGN												
Total 27 25 24 23 22 21 20 19 18 15 5 2 20	72 1 11 18 12 13 5 12 	63 1 11 18 12 12 2 7 	8 	1 ⁻			54 1 	45 1 2 6 14 13 4 1 1 1 3 4 1	7 	1 		
DOMESTIC	400					-1					1	_
10tai 27 26 24 23 22 21 19 18 17 16 15 13 3 ≤ 12	190 — 1 1 23 37 23 13 23 22 9 14 1 7 5	122 11 19 32 21 18 6 1 2 2 1 2 1 2 2 2 1 2 2 2 1 2 2 1 2 2 2 1 2 1 2 2 1 2 2 1 3 2 2 2 1 3 2 2 1 3 2 2 1 3 2 2 2 1 2 2 2 1 3 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2		34 _1 14 4 7 1 5 2	32 14 52 5 15 6 2 1	2 	174 1 1 3 15 7 34 13 25 28 23 4 8 11	1111 1 3 14 7 34 13 12 22 22 1 3 - 1 3 - 1		31 12 4 7 7 1 4 7 7 1 2 7 7 1 1 2 7 7 1	30 1 1 1 1 2 15 4 6 trips:	2
ALPENA H	IARBOR, MI	I	lobou	nd					Outbo	d		
Grand Total	377	191		92	94		360	163		97	100	
FOREIGN												
Totai 26 25 24 23 22 21 20 19 18 17 15 ≤ 12	75 1 3 14 15 26 4 9 2 1	71 13 14 14 23 9 2 1		3 			38 12 44 55 11 38 99 4 1 1	36 1 2 4 5 1 3 6 9 4 1		2 		
DOMESTIC												

Droft		Self P	ropelled Ve	ssels	Non-Self F Vess	Propelled sels		Self P	ropelied Ve	ssels	Non-Self I Ves	^o ropelled sels
Dran	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
MENOMINE	E HARB	OR AND RIV	/ER, MI AN	D ŴI					Quithou	ınd		
Grand Total	71	41		15	15		6	5 39		13	13	
FOREIGN												
Total 25 24 23 22 21 20 19 18 17 16 14 14 ≤ 12	40 22 14 13 55 4 	38 2 14 13 5 4 					35	35 35 1 6 6 8 13 2 2 2 2 3 3 1 1 1 1				
DOMESTIC												
Total 22 21 20 19 18 17 14 13 ≤ 12	31 1 5 4 1 1 10 8	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		14 	14 4 4 1 1 4 4 4 4 4 4		30	4		13 	13 	 136

SAGINAW RIV	VER, MI		L la bassa d						D			
Grand Total	349	181	Upbound 6	76	50	36	393	219	Downbound 6	83	47	38
FOREIGN												
Total 26 25 24 23 22 21 20 19 18 17 16 15 15 14 13 2 12	88 	67 	6 	8 	3 3	4 	89 1 6 16 4 7 25 1 1 2 2 2 2 1 6	67 1 6 16 4 7 23 8 1 1 	6 	9 ¹ ² ⁵	5 5 	2
DOMESTIC												
Total 26 25 24 23 22 21 20 19 18 17 18 17 16 15 14 13 ≤ 12	261 19 8 2 3 3 2 5 21 35 56 16 24 2 3 50	114 		68 19 1 3 8 24 23 3 8	47 8 2 3 7 3 1 9 3 1 1	32 	304 22 17 28 38 25 19 13 17 16 17 26 4 5 33	152 6 20 38 23 18 10 15 2 1 9 10		74 22 	42 11 8 2 1 3 2 2 3 1 9 ps:	36

Draft		Self P	opelled Ve	ssels	Non-Self F Vess	Propelled		Self P	ropelled Ve	ssels	Non-Self I Vest	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ST. CLAIR	RIVER, N	11	Indee:	nd					Dir. 1			
Grand Total	4,737	3,605	69	na 555	301	207	3.481	2.487	Downbou 63	ind 482	259	190
FOREIGN							-,	_,				100
Total	3,283	2,608	69	351	112	143	1,960	1,399	63	283	74	141
30 29 28 27 26 25 24 23 22 21 19 18 17 16 15 14 13 25 21 20 19 18 17 16 15 21 20 20 21 20 21 21 22 21 23 22 23 22 24 23 22 24 25 25 24 25 25 24 25 25 25 25 26 25 26 25 26 25 26 25 26 25 26 25 26 25 26 26 25 26 25 26 25 26 25 26 25 26 25 26 25 26 26 26 27 26 25 26 27 26 20 26 27 26 20 27 26 20 20 20 20 20 20 20 20 20 20 20 20 20	5 12 267 90 133 324 529 352 336 179 99 67 151 136 16 13 189	2 8 259 90 129 321 345 345 369 241 150 79 21 150 79 25 43 6 6 19	$\begin{bmatrix} 3 & 4 \\ 4 & 4 \\ 2 & 3 & 3 \\ 3 & 5 & 5 \\ 1 & 2 & 2 \\ 7 & 2 & 7 \\ 1 & 1 \end{bmatrix}$	1 2 29 9 79 79 14 8 32 32 59	3 2 1 1 4 2 1 2 4 8 2 23	1 1 1 4 60 122 17 6 82 87	1 4 490 178 117 107 97 164 136 96 92 71 47 132 62 5 8 139	1 463 165 109 93 157 124 700 145 300 14 3 7 2 1 2	4 2 6 2 4 3 3 6 8 24 1 1	5 1 1 12 172 155 599928 563	222 133 6 1 4 4 3 2 1 5	
DOMESTIC												
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 15 13 3 ≤ 12	1,454 4 63 32 38 149 84 45 80 367 245 133 95 12 12 95	997 4 23 10 28 131 57 390 345 135 135 57 345 135 135 135 135 135 135 135 13		204 	189 4 22 10 18 27 6 5 4 52 8 17 1 14	64 	1,521 53 342 326 175 124 67 54 33 40 59 19 65 9 9 19 65 9 9 29	1,088 50 323 261 123 94 56 50 31 36 34 5 7 3 3 4 5 7 3 1 14		1999 	185 3 19 32 52 30 11 4 2 4 6 5 1 1 16 1 trips:	49
MARYSVILI	LE, MI		Inhou	nd					Outbou	nd		
Grand Total	91	61		15	15		90	57			17	1
FOREIGN												
Total 28 27 26 25 24 23 22 21 20 19 18 18 17 16 ≤ 12	41 1356 1 14423 1	30 1 4 4 1 1 1 1 1 1 1		8 	3 1 2 		41 14 163 34 74 731 	28 2 1 6 3 4 5 2 4 1 1 		8 — — — — 2 2 3 — 1	4 	1

)	oraπ in seet)						
Draft		Self P	ropelled Ve	ssels	Non-Self I	Propelled sels		Self P	ropelled Ve	ssels	Non-Self I Ves:	Propelled seis
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
MARYSVILI	LE, MI - c	ontinued	Inbou	nd					Outbou	und		
DOMESTIC												
Total 26 25 24 23 22 21 20 19 18 17	50 8 11 6 3 5 5 3 3 4	31 4 3 4 5 3 5 		7 3 	12 1 8 2 1 1 1 1 1 1 1		49 3 1 6 7 7 13 16	29 		7 3 	13 1 1 2 4 5	181
ST. ÇLAIR	, MI											
Grand Total DOMESTIC	139	99	Inbou:	nd 20		20	135	s 95	Outbou	und 20	— .	20
Total 28 27 26 25 24 23 22 20 19 16 ≤ 12	139 1 64 13 10 7 1 1 40	99 1 64 13 10 7 1 1 2 		20		20 	135 	95 		20 20 Fota		20
MARINE C	ITY, MI		Inhow	nd					Quithou			
Grand Total	120	67		26	27		125	64		una 30	31	 -
FOREIGN											01	
Total 27 26 25 24 23 20 19 18 17	8 2 2 1 1 1	6 22 2 2 		1 	1		15 	5 1 3 		5 1 	5 	
DOMESTIC												
Total 28 27 26 25 24 23 19 18 17	112 15 34 11 15 12 2 	61 15 34 1 2 1 		25 2 	26 1 14 1 		110 	59 		25 2 	26 1 2 23 trips:	 245

Trips and Drafts of Vessels, 2006

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Draft -		Self P	ropelled Ve	ssels	Non-Self Ves	Propelled sels		Self F	ropelled Ves	sels	Non-Self Ves	Propelled sels
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
CHANNELS Grand Total FOREIGN	5 IN LAKE 3,292	5 ST. CLAIR 2,536	: Upbou 30	nd 377	225	124	2,870	6 2,169	Downbour 20	nd 358	216	113
Total 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 15 14 13 ≤ 12	2,052 4 7 1599 64 688 2200 308 2244 2366 2277 113 499 311 96 1155 9 7 95	1,688 2 5 154 67 217 294 240 225 168 102 215 168 102 217 19 21 19 21 5 6 15	30 2222 1 222 1 2 3 9 1 4 1	202 1 1 1 1 2 10 2 10 2 10 3 555 1 8 66 18 4 4 66 18 1 27	$ \begin{array}{c c} 72 \\ $	60 1 1 1 5 8 3 3 3 39	1,567 1 3 4666 86 85 154 147 86 85 35 26 82 26 82 26 4 3 5 66	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20 3 	178 	56 222 12 2 14 4 1 1 1 9	64
DOMESTIC Total 28 27 26 25 24 23 22 21 19 18 17 16 15 13 ≤ 12	1,240 4 57 31 35 93 76 321 189 116 90 12 12 86	848 4 23 10 28 39 299 125 69 299 125 80 40 5 3		175 	153 — 3 21 7 8 25 6 5 4 28 3 17 1 1 1	64 	1,309 37 244 307 148 61 55 57 15 57 15 57 15 57 12 28 29 45	920 34 225 244 109 5 8 9 10 10		180 	160 3 19 21 39 21 10 3 2 4 6 5 5 1 1 16 trips:	49
DETROIT R	lver, mi		Unhou	nd					Downbour	ıd		
Grand Total	5,845	4,055	30	905	272	583	3,872	2 2,784	20	539	266	263
FOREIGN												

DEIRON R	ercity and		Upbound						Downbound	Ì		
Grand Total	5,845	4,055	30	905	272	583	3,872	2,784	20	539	266	263
FOREIGN												
Total 32 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 ≤ 12	3,687 2 4 8 207 132 133 306 581 419 513 521 225 105 52 105 52 105 52 112 144 10 8 205	3,124 2 6 200 128 132 299 558 410 491 425 187 94 30 21 55 6 7 71	30 2 2 2 1 2 3 9 1 4 1	321 1 3 19 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 20 79 24 11 8 78 33 	103 	109 	2,215 1 3 14 480 182 154 140 194 182 164 116 132 63 39 10 63 39 10 62 7 8 164	1,751 1 14 448 170 151 135 190 175 154 92 75 37 22 3 21 4 54	20 3 1 1 3 1 2 1 3 1 5 1	247 	73 	124

Draft		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled sels		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled
Uran	Totai	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
DETROIT R	IVER, MI	- continued	Upbou	nd					Downbou	ınd		
DOMESTIC												
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 15 13 3 2 2 21 21 20 20 21 21 20 20 21 21 20 20 21 21 20 21 21 21 21 21 21 21 21 21 21 21 21 21	2,158 1 4 57 36 37 199 92 52 52 82 324 197 137 111 70 16 828	931 1 4 23 10 31 100 68 46 74 301 130 82 41 5 5 15		584 	169 	474 	1,657 36 244 307 150 109 60 58 34 47 112 128 78 79 69 69 16 128	1,033 35 225 244 111 86 51 54 32 42 42 38 73 3 9 4 1 28		292 32 	193 3 19 31 39 23 4 25 5 5 19 2 15 2 15 17 17 17	139
DETROIT F	HARBOR,	МІ	Inbou	nd					Outbou	ind		
Grand Total	317	232		40	45		329	243	_	42	44	
FOREIGN												
Total 27 26 24 23 22 21 20 19 18 17 15 ≤ 12	95 22 28 14 3 1 5 5 5 2	93 22 28 14 14 3 1 5 5 					119 21 34 22 9 8 7 7 1 4 22 2 2	108 2 1 21 34 20 9 8 7 7 1 3 2 2 		7 — — 2 — — 1 ~ _ 2 ~ _ _ _ _ 2 ~ _ _ _ 2 ~ _ _ 2 ~ _		
DOMESTIC												
Totai 28 27 26 25 24 23 22 21 20 19 18 17 16 ≤ 12	222 4 46 47 20 25 12 10 7 6 10 4 4 4 20 7	139 4 46 29 13 15 8 7 6 4 1 		39 7 9 4 4 14 14	44 11 11 7 10 4 3 1 2 5		210 	135 1 4 2 3 5 4 7 61 15 15 19		35 — 6 — — — 5 5 4 14 11 Tota	40 	 646

Droff		Self P	ropelled Ve	essels	Non-Self Ves	Propelled sels		Self F	Propelled Ve	essels	Non-Self Ves	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ROUGE RIV	ER, MI											
Grand	4 470		Inbou	bnu					Outbou	rnd		
FOREIGN	1,173	, 340		401	89	337	1,254	4 399		412	93	350
Total	298	104	<u> </u>	89	38	67	350	154		Q1	مته ا	65
28 27	40	19			21	_	22	2 2				
26 25	40 15	28 14		_	12	_	22	2 2 2		_		
24 23	6 6	5 5		_	1	_	22 30	2 22 28	_	2		
22 21	3 4	3 4					22 18	2 22 3 18	_			=
20 19	15 31	7		7 31			64 21	1 12		38 1		14 11
18 17	2 6		_			2 2	6 8	3 6 3 2		3	3	
16 15	28 28	1		16 13	i 1	10 1	31 65	1 1 5 12		17 12	37	13 4
14	1	1		_			3	3	_		=	1 1
S 121	70	1 1		18	II <u>—</u>	511	51	12		18	il —	21
Total	875	242	<u> </u>	312	: 51	270	904	1 245		321	53	285
28 27	30 90	30 78	_	_	12		1			_		
26 25	28 42	21 27	_	1	6 15	_	1 7		_	1		_
24 23	20 26	17			3		35	3 3			3	
22 21	23	23	_	=			11	11 1 4	_	=	_	
20 19	ь 9	6		1		7	21 84	17 1 36		_	4	45
18	8 52	4	=	51			215	5 128 3 26		36 18	39	12 5
15	16 59	_	_	· 57	3	2	29 62	8	_	10 61		8
≤ 12	453	6		183	8	256	400	5 <u> </u>		185 Tota	l trips;	212 2, 427
	TRAIT											
Grand	erkon,	1410	Inbou	und					Outbou	und		
Total	1,535	610		446	136	343	1,616	672		458	137	349
FOREIGN												
Total 32	414	211		94	41	68	501 1	285	 	103	45	68
28 27	63	41			22	=	1 5				1	
26 25	68 30	56 29		_	12	=	3 23	3				·····
24	22 13	21 12			1		56 57	56 53		-4		_
22	12	12	_			=	33 28	33 28		_		_
20 19	31	14		31		_	76 25	24	_	38		14 12
18 17	4 7 29	1	_	1		2	17	15		2	3	
15	28 1			16		10 1	32 67			18 14	37	13
13	3		_		<u> </u>	1	3 1 20			 		1
- 141	11	• •		22	1 Z	021	02	. 13		22	ı 4	

		Self P	ropelled Ves	sels	Non-Self F	Propelled		Self P	ropelled Ve	ssels	Non-Self I	Propelled
Draft	Total	Dry Cargo	Tanker	Tow or	Dry Cargo	iels Tanker	Total	Dry Cargo	Tanker	Tow or	Dry Cargo	<u>sels</u> Tanker
	DETROIT, I	MI - continu	red Inbour	nd	I ·				Outbou	ind	1	
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 15 13 3 ≤ 12	1,121 34 136 75 62 45 41 34 15 14 22 14 57 61 8 466	399 34 124 50 40 32 34 31 14 12 5 6 2 2 13		352 8 9 4 55 59 8 184	95 12 17 22 13 7 3 1 2 - 1 8 - 9	275 	1,115 1 11 17 5 8 26 8 26 8 28 60 73 61 12 410	387 1 1 4 10 5 5 18 8 8 24 102 145 30 20 20 14		355 	92 	281
MONROE	HARBOR,	MI	Inbour	nd					Outbou	und		
Grand Total	106	46	 -	30	5	25	102	2 50	<u> </u>	26	5	21
FOREIGN												
Tota 23 22 20 19 18 17 16 14 12 10 9 8	18 — 1 3 — 7 1 3 1 1			9 		9 3 3 3 1 1 1	15 1 1 3 1 1 2 2 2 2 1 1 3					5
DOMESTIC												
Total 25 24 22 21 20 19 18 17 16 15 13 16 15 13 29 8 7 6 5 2	88 1 4 19 	46 1 4 19 19 1 3 4 13 1 1 1 3 4 1 3 4 1 1 9 1 9 1 9 1 9 1 9 1 9 1 1 9 1 1 1 9 1 1 1 1		21 	5	16 2 4 6 	87 1 	45 1		21 	5 	16

Droft		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled		Self P	ropelled Ve	ssels	Non-Self	Propelled
Dran	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
CALCITE,	MI	,	Inbou	nd					Outbou	und		
Grand Total	403	327	8	33	35	 .	353	3 283	7	29	34	
FOREIGN												
Total 27 26 25 24 23 22 21 20 19 18 17 15 12 11	125 2 20 133 42 29 10 3 3 2 1	107 	8 - -	7 2 1 4 	3 		62 25 21 5 5 11 2 4 2 2 4 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5	55 2 2 5 2 2 5 2 1 2 1 1 2 2 1 1 2 2 1 1 2 2 1 3 1	7 1 1 3 3 3			
Total 26 25 24 23 22 21 20 19 18 17 16 15 13 12 10 6 2	278 4 3 10 19 11 15 58 58 12 7 4 2 5 3 5	2200 2 10 17 11 55 55 12 7 1 1		26 2 	32 1 		291 25 95 24 17 3 6 5 2 2 17 4 	228 83 73 23 17 3 6 1 17 17 17 17 17 17 17 17 17 17 17 17 1		29 3 	34 12 12 12 12 1 1 	
ESCANAB	A, MI		Inhou	nd					Outbox	hund		
Grand Total FOREIGN	177	151		13	13		173	3 150		11	12	
Total 24 23 22 21 20 9 4	8 1 1 3 	6 1 1 3 		2 - - 1 1			3 1 1 1 1 1			1 		
DOMESTIC												
Total 30 29 28 27 26 25 24 23 22 21 20 19 18 17	169 	145 			13 3 3 		170 1 12 64 28 21 5 - - 2 23 1 5 2 2 6	148 1 9 60 27 15 1 27 15 23 1 23 1 5 23 1 5 2 23 1 2 23 2		10 	12 3 4 1 	 350

	,	Self P	ropeted Ves	sels	Non-Self I	Propelled) 	Self P	ropeiled Vess	els	Non-Self I	Propelled
Draft	Total	Dry Cargo	Tanker	Tow or	Dry Cargo	seis Tanker	Total	Dry Cargo	Tanker	Tow or	Vess Dry Cargo	iels Tanker
STONEPOI	RT. MI			. 109	<u>I</u>					rug		
Grand			Inbour	ıd					Outbound	1		
Total	436	262		75	99		41	5 246		76	93	
FOREIGN												
Total	45	43		2			19	18		1	-	
24	1 8	1	<u> </u>		_	_	(5 5				
22	2	2		_			_			_		
20	12	13		1		_				_	=	
19 18	6	6	_			_				1		
17 16	1 1	1		_					_	_		
DOMESTIC												
Totai	391	219		73	99		396	6 228		75	93	
26	48	1		46	1	_	6	1 13		46	2	******
24	20	13			30		62	2 46		_	16	
23	20 33	5 25			15	_	31	3 30 1 30		_	8	
21 20	2 33	2 33		_	_		17 17	7 16 1 11	<u> </u>		1	
19 18	30 81	30 48		12	21		2-	1 2	_	 5	14	
17 16	58 4	33		8	17		18	5	_	15		
15 12	9 4	2		7					_	9		
										Total	l trips:	851
ALGOMA F No Vi	fARBOR, f essel Trip	Wi s Reported										
ALGONAC, No Vi	, Mí essel Trip:	s Reported										
ASHLAND (12 feet	HARBOR, and less)	WI	Inbour	ıd					Outbound	1		
Grand Total	2	. 2	_ - -	— .			:	2 2				— <u> </u>
ALL SABLE	HARBOR	AND RIVE	R (OSCODA	1 MI						lota	l trips:	4
No Ve	essel Trip	s Reported		<i>,,</i>								
BAYFIELD (8 feet a	HARBOR, and less)	, WI	Inbour	d					Outbound	ł		
Grand Total	6,185	6,185					6,18	5 6,185			_	
BIG BAY H No Ve	IARBOR, I essel Trip:	VI s Reported								Total	l trips:	12,370
BLACK RIV No Ve	/ER HARE essel Trip:	BOR, MI s Reported										
CASEVILLE No Ve	E, MI essel Trip:	s Reported										

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					Trips and E (orafts of Ves draft in feet	sels, 2006						
		Self P	ropelled Vessels	5	Non-Self Ves	Propelled		Self P	ropelled Vesa	sels	Non-	Self F	Propelled
Dratt	Total	Dry Cargo	Tanker To	w or lug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Ca	irgo	Tanker
CEDAR R No	NVER HAR Vessel Trip	BOR, MI os Reported											
CHEBOY (21 fee	GAN HARE	BOR, MI)	Inbound						Outbour	d			
Total	1,041	939		45	15	42	1,836	1,757		37 Total	trips:	12	30 2,877
CHIPPEW No 1	IA HARBO Vessel Trip	R (ISLE RO) os Reported	(ALE), MI								-		
	OPIA HARI Vessel Trip	BOR, WI os Reported											
DETOUR, (21 fe	MI AND V et and less	ICINITY)	Inbound						Outbour	d			
Grand Total	16,683	16,683	,				19,871	19,871	— .	 Tota	l trips:		36.554
DETRÓIT (11 fei	HARBOR, et and less	WI)	Inbound						Outboun	d			•
Grand Total	3,700) 3,700					3,700	3,700		 Tota	l trios:		7.400
EAGLE H No	ARBÓR, N Vessel Tri ş	li os Reported											
ECORSE, (23 fe	, MI et and less	}	Inbound						Outboun	d			
Grand Total	27	7 19	_	5	2	1	31	20		5 Tota	l trips:	1	5 58
FRANKFO No	ORT HARB Vessel Trip	OR, MI os Reported											
GLADSTO (23 fee	ONE HARB	or, mi)	Inbound						Outboun	d			
Grand Total	32	2 16		8		8	21	9	·····=	- Fota	l trips:		6 53
GRAND M (4 feet	ARAIS HA	ARBOR (HAR	RBOR OF REFU	JGE),	МІ				Outhour	d			
Grand Total	1	ı 1					1	1			I 4-!		_
GRAND N No	ARAIŞ HA Vessel Trip	ARBOR, MN os Reported								lota	i (rips:		2

GRAND TRAVERSE BAY HARBOR, MI No Vessel Trips Reported

						oran in iee	4) 					
Droft		Self F	ropelled Ves	sels	Non-Self Ves	Propelled sels		Self F	Propelled Ves	sels	Non-Self Ves	Propelled sels
Drait	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
HARBOR (23 fee	BEACH, t and less	MI (HARBOR 3)	OF REFUG	E, LAKE	HURON)							
Grand			Inbour	nd					Outboun	d		
Total	1	0 10	<u> </u>				11	11		 Total	trips;	
HARRISVI No V	LLE HAR /essei Tri	BOR, MI (HA	RBOR OF I	REFUGE,	LAKE HUR	ON)						
KENOSHA No V	A HARBO /essel Tri	R, WI ips Reported										
KEWAUNE No V	EE HARB /essel Tri	OR, WI ips Reported										
KEWEENA (25 fee	W WATE	ERWAY, MI s)	Unhour	ad					Downbour	d		
Grand	5	5 16		ιψ 	3	4	61	50		ی م	4	4
KNIFE RIV	/ER HAR	BOR, MN		L	3	I	0	50		Total	trips:	116
110 1	63361 11											
LA POINT (8 feet	E HARB(and less)	DR, WI	Inbour	ad					Outbour	าดี		
Grand Total	6 15	1 6 1 5 1					6.151	6.151			<u> </u>	<u> </u>
lotai	0,10	0,101					6,10			Tota	l trips:	12,302
LAC LA B No V	ELLE HA /essel Tr	RBOR, MI ips Reported										
LELAND H No V	IARBOR, /essel Tr	Mi ips Reported	ſ									
LIME ISLA No V	AND, MI /essel Tr	ips Reported	l									
MACKINA (19 fee	C HARB(DR, MI s}	inbou	nd					Outbour	nd		
Grand Total	24,58	1 24,524		40	17		24,793	3 24,714		45 Tota	34	49 374
MACKINA (9 feet	W CITY I and less	HARBOR, MI	Inhous	ad					Outhour	1012	r tripo.	43,314
Grand	0.20		Indovi	na 22	40		0.34	1 8 244	Outboar	iu		
rotai	8,35	io 8,333		23	12		0,31	. 0,311		Tota	l trips:	16,679
MANISTIQ (3 feet	UE HAR	BÓR, MÍ)	Inbou	nd					Outbour	าต่		
Grand Total	1	7				17	· 11	B				18
NEW BUF No V	FALO H/ /essel Tr	ARBOR, MI ips Reported	ł							Tota	l trips:	35

					, v		/					
Dreft		Self P	ropelled Vesse	els	Non-Self Vess	Propelled sels		Self P	ropelled Vesse	sks	Non-Self Ves	Propelled sels
	Total D	ry Cargo	Tanker T	ow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker T	ow or Tug	Dry Cargo	Tanker
OCONTO (6 feet	HARBOR, Wi and less)	I	tabawad						0.5			
Grand			moona						Outbound			
Total	14	_	<u> </u>	14			14			14 Total	trips:	
ONTONAC (20 fee	GON HARBOR at and less)	r, Mi										
Grand			Incound						Outbound			
Total	21	21					. 15	15	<u> </u>	 Total	trips:	 36
PENSAUK No \	(EE HARBOR /essei Trips l	, WI Reported										
PENTWAT No \	FER HARBOR /essel Trips	, MI Reported										
PORT HU (19 fee	RON, MI et and less)		Inhound						Outhourd			
Grand	_		mooune				_		Outbound			
lotal	3	1		1		1	2			1 Total	trips:	1 5
PORT SA	NILAC HARB /essel Trips I	OR, MI Reported										
PORT WA {23 fee	SHINGTON F et and less)	IARBOR,	Wi						Outbound			
Grand			1100010		_				Outpound			
iotal	4	2		1	1		4	2		1 Total	trips:	
PORT WINNO \	NG HARBOR, /essel Trips	WI Reported										
PUT-IN-BA (12 fee	AY HARBOR, et and less)	он	Inhound						Outbound			
Grand			moouno						Outeouna			
IOTAL	9,854	9,657	98	49	50		9,618	9,455	76	43 Total	44 trips:	19,472
RACINE H (9 feet	IARBOR, WI and less)		المراجع						0		-	-
Grand			inbound						Outbound			
Total	428			350	78		321			249 Total	72 trips:	749

ROGERS CITY, MI No Vessel Trips Reported

SAUGATUCK HARBOR AND KALAMAZOO RIVER, MI No Vessel Trips Reported

		Self P	ropelled Ve	ssels	Non-Self	Propelled	.,	Self P	ropelled Ve	ssels	Non-Self	Propelled
Draft	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
\$AULT \$ (25 fee	TE. MARIE, et and less)	MI	Inbo	und					Outbou	nd		
Grand Total	33,945	33,932	_	10	3	_	36,929	36,915		11 Total	3 trips:	70,874
SEBEWAI	ING, MI Vessel Trip:	s Reported									r	
SHEBOYO No V	SAN HARB(Vessel Trip	OR, WI s Reported										
SOUTH H (11 fee	AVEN HAR et and less)	BOR, MI	labo	امت					0.4			
Grand Total	3	—-		2	1		2			no 1 Total	1 ! trips:	5
ST. JAME (8 feet	S (BEAVER and less)	R ISLAND),	MI	und					Outbou	od	·	
Grand Total	396	378			.	18	395	378	—	Total	 I trips:	17 791
STURGEO (23 fee	ON BAY AN et and less)	D LAKE MI	CHIGAN S	HIP CANA	L, WI				Downhou	nd	-	
Grand Total	385	1		192	192		447	28		212 Total	204 I trips:	3 832
TRAVERS (20 fee	E CITY HA	rbor, Mi	Inbo	Ind					Qutbou	nd		
Grand Total	72	1		29	store a	42	71	<u> </u>		29 Totai	 I trips:	42 143
TRENTON (23 fee	I, MI et and less)		Inbo	Ind					Outbou	nd		
Grand Total	5	5				-	7	7		 Total	—- I trips:	 12
TWO RIVI No N	ERS HARB(Vessel Trip:	OR, WI s Reported										
WARROA No \	D HARBOR /essel Trip:	, MN s Reported										
WHITE LA No V	KE HARBO /essel Trip:	DR, Mi s Reported			·							

WHITEFISH POINT HARBOR, MI No Vessel Trips Reported

Draft		Self P	ropelled Vesse	ls	Non-Self i Vess	Propelled sels		Self P	ropelled Vess	els	Non-Self Ves	Propelled sels
	Total	Dry Cargo	Tanker T	ow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
WYANDO (22 fee	TTE, MI et and less)		المراجع المراجع						0.1			
Grand			Indouna						Outboun	3		
Total	8	8					. 12	12		 Tota	trips:	
MARBLEH (26 fee	HEAD, OH et and less)											
Grand			Inbound						Outboun	d		
Total	7,071	6,811	<u> </u>	112	148		7,106	6,821	<u></u>	123 Totai	162 trips:	14,177
PORT DO (28 fee	LOMITE, Met and less)	1	Inhound						0.00			
Grand			moorna						Outboun	a		
Total	142	114		15	13		148	122		13 Tota	13 I trips:	290
PORT GY (21 fee	PSUM, MI et and less)		laberrad.				•		.			
Grand			Inpound						Outboun	d		
Total	55	55				— .	39	39	<u> </u>	 Tota	 I trips:	94
PORT INL (28 fee	AND, MI et and less)		t de served						o			
Grand			phrodul						Qutboun	a		
Total	290	235		27	28		318	258		31 Tota	29 I trips:	608
SILVER B (28 fee	AY, MN et and less)											
Grand			Inbound						Outboun	d		
Total	198	195		1	2		164	161	<u> </u>	1 Tota	2 Itrips:	 362

CLINTON RIVER, MICHIGAN No Vessel Trips Reported

÷.

Draft -		Self P	ropelled Ves	sels	Non-Self F Vess	Propelled		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
TOLEDO I	HARBOR, C	н	Inhou	ad .					<u>.</u>			
Grand Total	768	507	9	10 124	37	91	842	559	Outbour 9	nd 136	36	102
FOREIGN												
Totai 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 3 2 21 20 20 20 21 21 21 21 21 21 21 21 21 21 21 21 21	514 	372 116 62 41 26 47 16 14 10 11 11 3 6 5 3 3 1	9 	71 	14 1 1 1 1 1 1 1 1 1 1 1 1 1	48 1 1 1 2 5 10 3 1 1 1 10 1 1 10 1 1 9	614 2 1 87 311 24 50 108 68 31 39 32 12 12 12 39 31 10 14 23	452 2 1 86 29 22 49 104 62 23 26 62 23 26 17 5 5 5 1 1 4 3 1 2	9 2 3 1 3 	83 	16 1 1 1 1 1 1 1 1 1 1 1 1 1	54
DOMESTIC												
Total 28 27 26 25 24 23 22 21 20 19 18 17 16 15 25 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 22 21 20 22 22 22 22 22 22 22 22 22 22 22 22	254 1 11 5 3 3 11 10 8 8 8 26 43 17 58 6 44	135 1 11 4 2 3 11 10 8 8 23 40 6 4 40 6 4 4		53 	23 1 1 	43 	228 1 	107 1 		53 	20 1 1 1 1 2 13 2 trips:	48
KELLEYS	ISLAND, O	н										
Grand Total	8 370	8 1/2	Inbour	109	440		\$ 340	9 400	Outbour	nd aaa	200	
DOMESTIC	0,070	0,140		100	113		0,340	0,100		141	123	
Total 19 18 15 12 10 9 8 7 4 3	8,370 6 97 95 13 94 6,612 1,440 13	8,143 		108 95 13	119 6 97 — 3 — 13		8,340 8 100 98 10 3 13 93 6,612 1,403 —	8,106 — — — 91 6,612 1,403		1111 98 13 13 Total	123 8 100 3 	 16,710

Droft		Self P	ropelled Ve	sels	Non-Self I Ves	Propelled		Self F	ropelled Ve	ssels	Non-Self I Vess	Propelled sels
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
SANDUSK	Y HARBOI	R, OH	lahou	od					Outboy	nd		
Grand Total	1,636	1,604		13	19	<u> </u>	1,956	1,923		· 12	21	
FOREIGN												
Total 27 26 25 24 23 22 21 20 19 18 ≤ 12	94 1 11 24 24 2 2 3 2 3 2 1 24	94 1 11 24 24 2 2 3 2 1 24					160 45 19 2 2 11 11 19 8 6 3 24	157 45 19 2 11 21 19 7 4 3 24		3 		
DOMESTIC												
Total 23 22 21 20 19 18 17 16 15 ≤ 12	1,542 5 15 45 30 11 4 2 1,430	1,510 5 		13 	19 		1,796 19 20 12 10 22 1 1 1,700	1,766 19 18 11 10 10 22 1 1,675		9 9 Total	21 2 1 2 	 3,592
HURON HA	ARBOR, O	н	inbou	nd					Outbou	Ind		
Grand Total	46	12	_	16	18		47	' 13		16	18	
FOREIGN					ł						T	
Total 21 20 18	2 2	2 —2					4 2 2 —	3 2 1		1 		
DOMESTIC												
Total 27 26 25 24 20 19 18 17 16	44 19 13 8 — — —	10 4 6 		16 	18 4 39 2 		43 2 19 7 3 2 2 4 1 1 1	10 1 2 4 1 1 1		15 Tota	18 2 4 7 2 3 	
LORAIN H	ARBOR, O	ιH	inbou	nd					Outbou	Ind		
Grand Total	213	135		34	43	1	231	156		33	41	1
FOREIGN					,		-	1 -			I	-
Total 27 26 25 24 23 22 21 20	45 3 14 6 6 1 1	38 3 13 6 6 1 1		4 1		1 	70 4 2 1 4 10 19 10 7	64 4 1 1 4 10 10 10 9 7		4 		

Draft		Self Pro	opelled Ve	sels	Non-Self F Vess	Propelled		Self F	ropelled Ve	ssels	Non-Self F	Propelled
	Total Dr	y Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
LORAIN HA	RBOR, OH -	continue	d inbou	าด					Outbou	ind		
FOREIGN												
19 18 17 16 ≤ 12	2 2 	1 1 		1 1 1			10 1 1 1	9		1 1 1 		1 1
DOMESTIC												
Total 26 25 24 23 22 20 19 18 17 16 15 13 ≤ 12	168 65 12 17 4 2 11 10 14 13 	97 57 70 3 2 9 8 1 		30 1 	41 7 5 7 1 		161	92 4 		299 1 	40 3 1 21 8 	 444
CLEVELAN	ID HARBOR,	он	Inhou	nd					Outbou	ind		
Grand Total	1,283	784	6	235	205	53	1,349	5 854	6	231	202	52
FOREIGN												
Total 29 27 26 25 24 23 22 21 20 19 18 17 16 15 ≤ 12	390 1 57 29 42 30 42 40 23 22 29 15 4 46 5 5	294 1 52 29 41 29 39 38 18 19 15 10 3 	6 	64 	13 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13 	485 1 2 47 56 60 60 30 69 14 44 44 44	385 385 1 1 2 2 2 2 4 24 5 59 39 66 13 - - - - - </td <td>6 </td> <td>67 </td> <td>13 1 - - - - - - - - - - - - -</td> <td>14 </td>	6 	67 	13 1 - - - - - - - - - - - - -	14
DOMESTIC												
Total 28 27 26 25 23 22 21 20 19 18 17 16 15 13 ≤ 12	893 1 66 57 26 59 44 37 19 86 99 95 35 123 3 117	490 64 52 19 17 48 33 32 16 72 38 6 10 21		171 	192 1 2 7 9 11 11 5 3 2 48 8 8 9 	40 12 5 2 3 1 1 1 16	860 1 4 4 18 51 31 35 22 2 2 160 117 117 117 117 117 117 117 117 117 11	469		164 	189 1 2 - - 1 4 3 6 1 25 25 10 10 - 1 1 73 1 trips:	38

Draft		Self P	ropelled Ve	ssels	Non-Self I Ves	Propelled sels		Self P	ropelled Ve	essels	Non-Self I Vess	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
FAIRPORT	HARBOR	R, ОН	Inbou	nd					Outbo	und		
Total	407	287		49	71		39	5 290		38	67	
FOREIGN												
Total 26 25 24 23 22 21 20 19 18 18	52 1 3 19 16 3 4 1 5	42 1 3 19 12 1 4 - - 2		6 	4 		49	39 2 2 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 5		5 	5 	
DOMESTIC												
Total 26 25 24 23 22 21 20 19 18 17 16 15 13 3 ≤ 12	355 4 9 16 27 8 6 3 2 2 11 15 1 5 1 9 1 2 43	245 4 1 17 6 6 3 1 7 2 1 7 2 1 197		43 4 	67 5 15 10 2 — 1 4 2 — 28		344 11 22 230	251 3 4 8 2 1 2 2 25 8 2 2 25 8 2 2 2 2 2 2 2 2 2 2 2 2 2 3 201		333 3 	62 2 3 1 1 4 16 25 1 trips:	 802

ASHTABULA	HARBOR, (ЭН	Inhound				Outhouse	4		
Grand Total	247	245	<u> </u>	 2	 291	287		1	3	
FOREIGN										
Total 29 28 27 26 25 24 23 22 21 20 19 18 ≤ 12	157 	157 			202 4 19 109 1 4 7 8 11 17 11 8 2 1	200 4 19 109 4 7 8 11 17 10 8 2				
DOMESTIC										
Total 27 26 24 23 22 21 20 19 18 17 16 15 ≤ 12	90 16 15 18 1 1 2 1 1 5 1 3	88 16 15 18 1 1 2 1 1 2 1 3 1 3 1 3		2 	89 	87 			2 1 1 	

538

		Self F	ropelled Ve	ssels	Non-Seif	Propelled		Self F	ropelled Ve	ssels	Non-Self I Ves	Propelled
Draft	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Totai	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
CONNEAU	T HARBOR	ι , он	Inbou	nd					Outbou	ind		
Grand Total	301	210		45	41	5	333	3 238		50	40	5
FOREIGN												
Total 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 2 5	159 1 2 22 29 33 22 29 33 2 7 3 5 2 2 2 1 4 - 4	101 1 2 2 2 2 2 2 2 2 2 2 2 2 2		30 	23 — — — — — — — — — — — — — — — — — — —	5 3 ¹	195 68 8 2 5 5 5 5 32 32 32 32 32 32 32 32 32 32 32 32 32	123 1 1 1 4 68 8 2 8 11 8 2 8 2 8 2 8 2 8 2 8 2 9 8 2 4 2 2 4		40 4 1 0 0 0 1 1 0 0 24	27 	5 1 3 1
DOMESTIC											•	
Tota 28 27 26 25 24 23 22 21 20 19 18 17 16 15 13 ≤ 12	142 2 1166 8 7 1 20 111 6 1 1 5 3	109 10 59 8 7 		15 	18 2 1 7 		138 6 4 11 12 12 12 12 12 12 12	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		10	13	 634
ERIE HAR	BOR, PA		Inbou	ind					Outbo	und		
Grand Totai	294	291	.	1	2	<u> </u>	32	9 326		1	1 2	
FOREIGN												
Total 27 26 25 24 23 22 21 20 19 18 18 17 5 12	11 3 4 2 1 	11 3 4 2 1 						B 18 1 1 1 1 2 2 1 1 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1				
Total	283	280		1	2		31	1 308			1 2	
27 26 25 24 23 22	1 6 15 9 1 1	1 6 13 9 1 1										

					Trips and D	Drafts of Ve: draft in feet	ssels, 2006)	3				
Dreft		Self P	ropelled Ve	sels	Non-Self Ves	Propelled sels		Self F	ropelled Ve	ssels	Non-Self Ves	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ERIE HARB	OR, PA -	continued	Inbou	nd					Outbou	ind		
DOMESTIC		1										
21 20 19 18 17 16 15 14 13 ≤ 12	1 3 3 240 1 2	1 2 3 240 1 2					2 12 5 10 4 30 30	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1 		
BUFFALO I	HARBOR,	NY	Unhou	nd					Downbox	ind		
Grand Total	96	94	—	1	1		91	1 89		1	1	
FOREIGN												
Totai 29 28 27 26 25 24 23 22 21 20 19 18 ≤ 12	56 1 22 15 1 1 2 5 5 5 1 15 2	56 1 2 15 1 1 2 5 5 6 1 15 2					44 	44				
DOMESTIC							_					
Total 26 25 24 23 22 21 20 19 18 17 16 ≤ 12	40 	38 					47 22 10 10 10 10 10 10 10 10 10 10 10 10 10	45 2 3 3 6 6 7 2 16 5 2 2 16 6 5 5 6 6 6 6		1 	1 	 187
PORT OF E	BUFFALO	, NY	Inhou	ord					Outboy	Ind		
Grand Total FOREIGN	153	96	—	29	1	27	160) 100		31	1	28
Total 29 28 27 26 25 24 23 22 21 20 19	47 	45 					66 1 22 15 1 22 55 60	56 1 2 15 1 1 2 5 5 6 1		5 		5

Draft		Self F	ropelled Ves	sels	Non-Self I Ves	Propelled sels		Self P	ropelied Ve	ssels	Non-Self F Vess	Propelled
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
PORT OF E	BUFFALO,	NY - contir	iued Inbou	nd					Outbou	Ind		
FOREIGN												
18 16 15 ≲ 12	2 1 1 2	1 2		1 			1	5 15 5		 		
DOMESTIC												
Totai 26 25 24 23 22 21 20 19 18 17 16 15 13 2 2 12	106 2 3 17 6 5 5 2 23 1 7	51 2 5 3 17 6 6 5 1 6		28 		26 19 5 1	9. 	4 44 - -		26 	1 	23
OSWEGO	HARBOR,	NY	Uobou	nd					Помпрои	ınd		
Grand Total	179	80	21	38	21	19	17	9 79	21	38	19	22
FOREIGN												
Total 26 25 23 22 21 20 19 18 17 16 ≤ 12	168 1 2 2 2 2 3 6 79 18 20 35	80 1 2 2 3 2 68 	21	32 	21 	14 	17: 1\ 6: 1 1 1 1 1 1 1 20	3 79 1 1 4 4 3 13 6 51 8 1 36 1 37 1 38 1 39 5 100 3 110 3	21 	35 5 11 16 3	19 	19
DOMESTIC												
Total 19 18 17 16 ≤ 12	11 3 3 5			6 3 		5 5				3 3 Tota	 trips:	3 2 1 358

BARCELONA HARBOR, NY No Vessel Trips Reported

CAPE VINCENT, NY No Vessel Trips Reported

DUNKIRK HARBOR, NY No Vessel Trips Reported

GREAT SODUS BAY HARBOR, NY No Vessel Trips Reported

					Trips and D	Drafts of Ves draft in feet)	sels, 2006	;				
Draft	Self Propelled Vessels			Non-Self Propeiled Vessels			Self Propelled Vessels			Non-Self Propelled Vessels		
	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
IRONDEQ No N	UOIT BAY Vessel Trip	HARBOR, I	NEW YORK									
NIAGARA No V	, FALLS, N Vessel Trip	Y os Reported					-					
NIAGARA (23 fee	RIVER, N' et and less)	Y I	Upbound	ł					Downboun	d		
Grand Total	65	6		30		29	61	7		28 Tota	l trips:	26 126
OGDENSI (27 fee	BURG HAR et and less)	BOR, NY									·	
Grand			Inbound	4					Outboun	d		
Total	8	8					9) 9	·	 Tota	l trips:	 17
PORT CLI (7 feet	INTON HAP and less)	RBOR, OH										
Grand			Inbound	ł					Outboun	d		
Total	2,428	2,395		12	21	<u> </u>	2,439	2,395		20 Tota	24 l trips:	4,867
ROCHEST (22 fee	TER (CHAR at and less)	LOTTE) HA	RBOR, NY									
Grand			Inbound	3					Outboon	d		
Total	43	43					42	42		 Tota	l trips:	85
SACKETS (3 feet	HARBOR, and less)	, NY										
Grand			Inbound	1					Outboun	d		
Total	16	16					15	i 15	 -	 Tota	I trips:	 31

TONAWANDA HARBOR, NY No Vessel Trips Reported

VERMILION HARBOR, OH No Vessel Trips Reported

WADDINGTON HARBOR, NY No Vessel Trips Reported

					Trips and D	rafts of Ves draft in feet)	sels, 2006					
		Self P	ropelled Ves	opelled Vessels		Non-Self Propelled		Self P		ropelled Vessels		Propelled
Draft	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker	Total	Dry Cargo	Tanker	Tow or Tug	Dry Cargo	Tanker
ILLINOIS R	IVER, IL		Upbour	nd					Downbou	ind		
Grand Total	22,882			3,807	16,001	3,074	21,900	; _ _	 ·	3,782	15,037	3,081
DOMESTIC										·		
Total 12 11 10 9 8 7 6 5 4 3 2 1	22,882 465 418 373 4,760 7,113 1,317 894 457 77 150 6,835 23			3,807 3 5 43 723 1,335 590 698 367 6 37	16,001 449 323 148 3,330 5,224 521 165 68 67 149 5,536 21	3,074 13 90 182 707 554 206 31 22 4 1 1,262 2	21,900 38 254 342 4,255 6,821 930 891 406 84 133 7,718 28			3,782 3 4 668 1,340 560 715 396 18 311 1 Total	15,037 32 138 170 3,252 5,144 300 120 5 2 14 5,845 15 trips:	3,081 3 112 126 335 337 70 56 64 119 1,842 12 44,782
CALUMET-	SAG CHA	NNEL, IL	Upbour	nd					Downboi	und		
Grand Total	4,428			450	3,562	416	4,364	1		416	3,563	384
DOMESTIC							,					
Total 12 11 10 9 8 7 6 5 4 3 2 1	4,428 10 17 73 1,442 1,746 441 139 50 40 57 409 4			450 6 63 143 145 45 14 2 10	3,562 4 13 31 1,295 1,490 276 90 31 30 44 254 4	416 	4,364 11 4 355 377 792 401 82 14 12 10 2,625 1			416 2 63 123 137 43 11 9 9 Total	3,563 3 8 277 639 261 39 3 3 3 8 2,321 1 trips:	384 8 1 8 37 30 3 2 295 8,792
CHICAGO	SANITAR	(AND SHIP	CANAL, IL	nd					Downboi	und		
Grand Total DOMESTIC	13,065	1		2,594	8,790	1,680	13,821		<u> </u>	2,384	9,799	1,638
Total ≤ 12	1 3,065 13,065	1		2,594 2,594	8,790 8,790	1,680 1,680	13,821 13,821	=	_	2,384 2,384 Total	9,799 9,799 trips:	1,638 1,638 26,886
ILLINOIS W	VATERWA	Y, IL	Hobour	ad					Downhor	und		
Grand Total DOMESTIC	27,632	1		4,941	19,345	3,345	25,794	I —-		4,939	17,511	3,344
Total ≤ 12	27,632 27,632	1	 	4,941 4,941	19,345 19,345	3,345 3,345	25,794 25,794			4,939 4,939 Tota	17,511 17,511 trips:	3,344 3,344 53,426

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ALGOMA HARBOR, WI	43
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Attachment 8

THE DISTRICT'S EFFORTS TO PROTECT AND IMPROVE THE WATER QUALITY OF THE CAWS SINCE ITS CREATION

- 1889 Illinois General Assembly adopted the Sanitary District of Chicago Enabling Act. This resulted in the creation of the Sanitary District of Greater Chicago, now known as the Metropolitan Water Reclamation District of Greater Chicago.
- 1900 The Chicago Sanitary and Ship Canal (CSSC) connecting the North Branch of the Chicago River with the Des Plaines River was completed.
- 1910 The North Shore Channel (NSC) from Wilmette to the North Branch of the Chicago River was completed.
- 1922 The Calumet-Sag Channel (CSC) connecting the Little Calumet River with the CSSC was completed.
- 1920s Calumet Imhoff treatment plant (1922).

North Side secondary treatment plant (1928).

1930s West Side Imhoff treatment plant placed in operation (1930).

Calumet activated sludge treatment plant (1935).

Southwest activated sludge treatment plant (1939).

1940s West Side Imhoff tank effluent to Southwest plant (1948).

Expanded the West-Southwest secondary treatment plant with addition of Battery C (1949).

1950s Added primary tanks at the Calumet treatment plant (1952).

Rehabilitation of Battery A at North Side treatment plant (1959).

Intercepting sewer system expanded.

1960s Rehabilitation of aeration tanks at Calumet and North Side plants (1960).

Lemont treatment plant placed in service (1961).

North Side treatment plant expanded with addition of Battery D (1962).

Industrial Waste Ordinance adopted to regulate industrial wastes discharged to District's sewerage system (1962).

Expanded secondary treatment capacity at the Calumet treatment plant with addition of Battery C (1966).

Chlorination of effluent at the North Side (1967) and Calumet (1968) plants.

New ordinance for the Control of Sewage and Industrial Waste adopted (1969).

1970s Chlorination of effluent at the West-Southwest plant (1970).

District developed local discharge limits (1971).

District Board adopted long-range Tunnel and Reservoir Plan (TARP) for control of combined sewer overflows (1972).

Monitoring of Illinois Waterway from Lockport to Peoria initiated (1972).

Conducted preliminary nitrification studies at Calumet and North Side plants (1975).

Expanded secondary treatment plant capacity at West-Southwest (Stickney) with addition of Battery D (1975).

Nitrification at West-Southwest plant (1976).

In-stream aeration station constructed on North Shore Channel (1979).

Partial nitrification at North Side plant (1970s).

1980s In-stream aeration station constructed on the North Branch of the Chicago River (1980).

Illinois Pollution Control Board (IPCB) granted variance to discontinue disinfection of Calumet effluent (1983).

IPCB granted variance to discontinue disinfection of discharges into Secondary Contact Waters (1984).

Discontinued chlorination at North Side and West-Southwest plants (1984).

Calumet TARP Pump Station and Mainstream TARP pump station on line (1985).

Mainstream TARP Tunnel System completed (1985).

Des Plaines TARP Tunnel System under construction.

Expanded secondary treatment plant capacity at Calumet WRP with addition of Batteries E1 and E2 (1985).

USEPA approved District's Pretreatment Program (1985).

Nitrification of Calumet effluent evident (1987).

Cal-Sag Leg Calumet TARP System completed (1986).

1990s Design of the Thornton Composite Reservoir and McCook Reservoir underway.

Construction of portions of the Calumet TARP Tunnel System.

Improved nitrification at the Stickney, Calumet, and North Side WRPs.

Side-stream elevated pool aeration (SEPA) stations along the Calumet-Sag Channel (1992 and 1994).

SEPA stations along Calumet River and Little Calumet River on line (1994).

O'Hare Chicago Underflow Plan Reservoir completed (1998).

Des Plaines TARP Tunnel System completed (1999).

2000s Completed Stickney Master Plan (2004).

Completed Calumet Master Plan (2005).

Completed Calumet TARP Tunnel System (2006).

Completed Phase I of TARP (2006)

Completed North Side Master Plan (2007).

Design and construction of various components of the Master Plans.

- 2014 Anticipated completion of the Thornton Composite Reservoir (7.9 billion gallons).
- 2015 Anticipated completion of Stage 1 of the McCook Reservoir (3.5 billion gallons).
- 2024 Anticipated completion of Stage 2 of the McCook Reservoir (6.5 billion gallons).

Attachment 9

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