STATE OF MAINE

Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia W. Aho
COMMISSIONER

September 17, 2013

Mr. James Leighton, Superintendent
Limestone Water & Sewer District
6 Water Company Road
P.O. Box 544
Limestone, Maine 04750
lwsd@maine.rr.com

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102849
Maine Waste Discharge License (WDL) Application # W-006654-6D-J-M
Final Permit Modification

Dear Mr. Leighton:

Enclosed, please find a copy of your **final** MEPDES permit and Maine WDL **modification** which was approved by the Department of Environmental Protection. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: William Sheehan, DEP/NMRO
Sandy Mojica, USEPA
Fred Corey, Aroostook Band of Micmac Indians

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

LIMESTONE WATER & SEWER DISTRICT	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
CARIBOU, AROOSTOOK COUNTY, MAINE	)	AND
ME0102849	)	WASTE DISCHARGE LICENSE
W006654-6D-J-M **APPROVAL**	)	**MODIFICATION**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, *et.seq.* and Maine Law 38 M.R.S.A., Section 414-A *et seq.*, and applicable regulations, the Department of Environmental Protection (Department hereinafter) is initiating a modification of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0102849/Maine Waste Discharge License (WDL) #W006654-5L-F-R (permit hereinafter) last issued by the Department on March 11, 2009 for a five-year term. With its supportive data, agency review comments, and other related materials on file the Department FINDS THE FOLLOWING FACTS:

MODIFICATION SUMMARY

Special Condition A, *Effluent Limitations and Monitoring Requirements*, of the permit established a monthly average water quality based mass and concentration limitations for inorganic arsenic along with a monitoring and reporting requirement for total arsenic. The limits and monitoring requirements were established as a statistical evaluation of the test results on file at the Department at that time indicated the discharge from the waste water treatment facility either exceeded or had a reasonable potential to exceed the human health ambient water quality criteria (AWQC) established in 06-096 CMR, Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants,* for inorganic arsenic. Chapter 584, adopted on October 12, 2005, established human health AWQC for inorganic arsenic as follows:

	Human Health for Consumption of:	
	Water & Organisms	Organisms only
Inorganic Arsenic	0.012 ug/L	0.028 ug/L

MODIFICATION SUMMARY (cont'd)

In a letter dated May 16, 2013, to the Commissioner of the Maine Department of Environmental Protection, the Acting Director of the Office of Ecosystem Protection in Region I of the U.S. Environmental Protection Agency (EPA) stated "Pursuant to Section 303(c)(2) of the Clean Water Act and 40 C.F.R. Part 131, I hereby approve the following water quality standards revisions to 38 MRSA, §420, sub-§2 as set forth in P.L. 2011 Ch. 194 (LD 515) "An Act To Review Water Quality Standards" and CMR 584, *Surface Water Quality Criteria for Toxic Pollutants.*

1. Revision of the cancer risk level used to calculate the human health criteria for arsenic from one in 1,000,000 to one in 10,000 and;

2. Revision of the arsenic criteria to protect human health from 0.012 to 1.3 ug/L for the consumption of water and organisms and from 0.028 to 3.7 ug/L for the consumption of organisms only."

On July 19, 2013, the Department conducted a statistical evaluation (evaluation) on arsenic data submitted by the permittee consistent with the methodology found in Section 3.3.2 and Table 3-2 of USEPA's *"Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.)* to determine whether the discharge from the permittee's facility exceeds or has a reasonable potential to exceed the revised human health criteria for arsenic approved by the EPA on May 16, 2013. The evaluation indicates the most current 60 months of arsenic data on file at the Department does not exceed or have a reasonable potential to exceed the revised AWQC. Therefore, pursuant to Special Condition O, *Reopening of Permit For Modifications*, of the permit, the monthly average water quality based mass limit and monitoring requirement for inorganic arsenic and the monitoring and reporting requirement for total arsenic are being removed from the permit. In addition, this modification is removing Special Condition N, *Schedule of Compliance - Inorganic Arsenic,* of the permit as it is no longer necessary.

CONCLUSIONS

BASED on the findings above and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

CONCLUSIONS (cont'd)

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

   a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   b. Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

   c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and

   e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the modification of MEPDES permit #ME0102849/ WDL #W006654-5L-F-R, issued by the Department on March 11, 2009, to remove the monthly average limitations, monitoring requirements, reporting requirements and schedule of compliance for inorganic arsenic and total arsenic from said permit. The discharges shall be subject to the attached conditions and all applicable standards and regulations including:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002, copy attached to MEPDES permit #ME0102849/ WDL #W006654-5L-F-R, issued by the Department on March 11, 2009.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. All terms and conditions of MEPDES permit, #ME0102849/WDL #W006654-5L-F-R, issued by the Department on March 11, 2009, not modified by this permitting action remain in effect and enforceable.

ACTION (cont'd)

4. This permit modification becomes effective upon signature and expires on March 11, 2014, concurrent with ##ME0102849/WDL #W006654-5L-F-R, issued by the Department on March 11, 2009. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

DONE AND DATED AT AUGUSTA, MAINE, THIS 18th DAY OF September, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhn
For Patricia W. Aho, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application June 13, 2013.

Date of application acceptance June 13, 2013.

Filed
SEP 18 2013
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection _____.

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY

ME0102849 MR 2013 9/17/13

RESPONSE TO COMMENTS

During the period of July 22, 2013, through the issuance date of the permit modification, the Department solicited comments on the proposed draft permit modification to be issued for the discharge(s) from the LWSD facility. The Department received written comments from the Aroostook Band of the MicMac Indians in an electronic mail message dated August 5, 2013. Responses to comments received are as follows:

Comment #1: *"The state has not addressed the anti-degradation standard of the CWA in reducing the cleanliness of the discharge. (the discharge would be 100 times more polluted than the status quo.)"*

Response #1: Attachment A of the permit modification is a May 25, 2012, document prepared by the Department responding to comments received on proposed revisions to the proposed rule (at that time) during the second public comment period of March 14, 2012 through April 13, 2012. The Department's responses provide scientific support to address the State's antidegradation policy found at Maine law 38 MRSA Section 464(4)(F).

Comment #2 – *"The State has not provided a Fact Sheet or any other basis demonstrating the discharge would not cause or contribute to the harm to fisheries or wildlife in the receiving water down-gradient from the discharge. We recommend the State provide clarification on the basis for the changes as well as supporting documentation and calculations for the proposed changes."*

Response #2 – Attachment A of this permit modification has an extensive detailed discussion on the basis for each numeric variable used to calculate the new ambient water quality criteria. The equation and a summary of the variables used to calculate the new criteria can be found on page 3 of the USEPA's approval letter dated May 16, 2013 (Attachment B of this permit modification).

ATTACHMENT A

CHAPTER 584
Surface Water Quality Criteria for Toxic Pollutants

BASIS STATEMENT

Maine law 38 M.R.S.A, Section 420.2 requires the Board of Environmental Protection to regulate toxic substances in the surface waters of the State pursuant to state water quality criteria, consisting of levels set forth as federal water quality criteria pursuant to the Federal Clean Water Act or pursuant to adoption of alternative statewide or site-specific criteria found to be protective of the most sensitive designated use of the water body.

This rule revises an existing Maine rule (06-096 CMR 584, effective date October 9, 2005) with an original effective date of May 17, 1993. The original rule was established in response to amendments to the Federal Clean Water Act in 1987 and amendments to 38 MRSA, Section 420 enacted in 1991, both of which required Maine to develop comprehensive rules dealing with toxic pollutants in licensed wastewater discharges. The Department established and has managed a surface waters toxics control program since the effective date of the original rule.

This rule revision was initiated pursuant to P.L. 2011, c. 194 (LD 515), *An Act to Review State Water Quality Standards,* at the direction of the Joint Standing Committee on Environment and Natural Resources, and was further revised based on input received during a public comment period. This rule revision changes the cancer risk level, statewide fish consumption rate, bioconcentration factor, and establishes a percent inorganic factor for inorganic arsenic for use in calculating ambient water quality (human health) criteria. It also establishes revised inorganic arsenic criteria accordingly. Further, this revision updates Maine's ambient water quality and human health criteria for pollutants for which USEPA has updated criteria since Maine's last revision in 2005, using Maine-specific parameters where applicable. The Department anticipates that the revised rule will operate successfully within the Department's existing program.

Pursuant to Maine Law, 38 M.R.S.A., Section 341-H, the Department of Environmental Protection conducted a public hearing regarding this rule on November 1, 2011, in Augusta, Maine. The record for written comments remained open until 5:00 pm on December 1, 2011. The rule was reposted for further public comment on proposed changes to the proposed rule on March 14, 2012. The record for written comments remained open until 5:00 pm on April 13, 2012. Pursuant to 38 M.R.S.A., Section 341-H(3)(C), the Department of Environmental Protection provided notice of and, on June 19, 2012, conducted a public meeting for the purpose of receiving additional limited public comment on this rule.

LIST OF COMMENTERS PROVIDING COMMENTS AT THE NOVEMBER 1, 2011 PUBLIC HEARING AND DURING THE NOVEMBER 1, 2011 – DECEMBER 1, 2011 COMMENT PERIOD

Oral comments at the public hearing:

A: Cara O'Donnell, Houlton Band of Maliseet Indians
B: Bradley Moore, City of Bangor Wastewater Treatment Plant

Oral comments at the public hearing and provided written comments:

C: David Anderson, Maine Wastewater Control Association
D: Dennis Kearney, FMC Corporation, Rockland, ME
E: Dr. Rosalind Schoof for FMC Corporation and The Arsenic Legislation Coalition
F: Kenneth Gallant, Verso Paper Corporation
G: David Bolstridge, City of Rockland Pollution Control Facility
H: Nick Bennett for Natural Resources Council of Maine and Maine Rivers
I: Daniel Kusnierz, Penobscot Indian Nation

Written comments:

J: Brenda Commander, Houlton Band of Maliseet Indians
K: Ellen Ebert, Integral Consulting Inc.
L: Jay Beaudoin, Woodland Pulp LLC
M: Matthew Manahan Esq. for The Arsenic Legislation Coalition
N: Stephen Silva, US Environmental Protection Agency, Water Quality Branch

LIST OF COMMENTERS PROVIDING COMMENTS DURING THE MARCH 14, 2012 – APRIL 13, 2012 COMMENT PERIOD

O: Kirsten Hebert, Maine Rural Water Association
P: Dr. Rosalind Schoof for The Arsenic Legislation Coalition
Q: David Bolstridge, City of Rockland Pollution Control Facility

CHAPTER 584
Surface Water Quality Criteria for Toxic Pollutants

RESPONSE TO COMMENTS

This document notes and responds to all substantive comments offered on the initially proposed rule by members of the public at the November 1, 2011 public hearing and in writing during the initial public comment period of November 1, 2011 through December 1, 2011 (Section 1). Further, this document provides a response to comments received on proposed revisions to the proposed rule during the second public comment period of March 14, 2012 through April 13, 2012 (Section 2). The letter in parentheses at the end of the comment corresponds to the person providing the comment and, if applicable, the organization the person represents, as listed above. Where appropriate, similar comments have been combined. The Department has considered the full content of all the comments received in formulating its responses. The comments and responses are arranged by general subject matter of concern to commenters.

1. INITIAL PUBLIC COMMENT PERIOD NOVEMBER 1, 2011 – DECEMBER 1, 2011.

A. General Comments on the Rule

Commenters expressed both general opposition and general support of the proposed rule revisions. The Department is providing summaries of the comments in opposition and support, followed by the Department's responses below.

Changes in Human Health Criteria for Inorganic Arsenic

1. Comment: Opposed:

Several commenters oppose a change in the human health criteria for inorganic arsenic based on concerns with appropriate protections afforded by the criteria.

> The Houlton Band of Maliseet Indians (HBMI) states that a lack of recognition and protection for the fundamentally important cultural practice of fishing to provide food for a family and community threatens the health and welfare of our tribe. Rulemaking which weakens already inadequate standards harm us even further. The proposed arsenic criterion does not consider other exposure routes and possible synergistic effects, for example: drinking water well tests over the 10 ug/L drinking water standard, historical use of pesticides containing arsenic in Maine, a significantly greater percentage of smokers among the Maliseet population than the general population, unknown synergistic effects with mercury found in the Meduxnekeag and other rivers in Maine. (J)
>
> USEPA states that well sampling programs conducted in Maine in 1999/2000 and 2006/2007 indicate that a significant portion of Maine residents are already exposed to elevated arsenic due to high concentrations of arsenic in private drinking water wells. (N)

The Penobscot Indian Nation (PIN) states that the existing language in Chapter 584 provides a process for establishing alternative statewide or site specific criteria for arsenic and other pollutants. However, the rule language states that "*the alternative statewide criteria must be as protective as EPA's water quality criteria. Such criteria must also be protective of the most sensitive designated and existing uses of the water body, including, but not limited to habitat for fish and other aquatic life, human consumption of fish and drinking water supply after treatment.*" We contend that the most sensitive designated and existing uses of the Penobscot River include consumption of fish and other aquatic resources for sustenance purposes, a use that is not protected by the proposed change to the arsenic criteria. (I)

PIN further states that while meeting arsenic criteria may be a problem for some dischargers with arsenic source water issues, many dischargers do not have this problem. The changes to this rule seek to relax arsenic criteria state-wide. By using this blanket state-wide approach to address arsenic, MEDEP would be allowing for a relaxation of arsenic criteria in waters that are already meeting current criteria. This criteria relaxation goes against the premise of anti-backsliding and anti-degradation requirements that waters should be getting cleaner and not becoming more polluted. (I)

USEPA states that Maine's proposed arsenic human health criteria revision is based on a change to the cancer risk factor used in calculating the arsenic water quality criteria established to protect human health. Maine's current cancer risk factor for establishing arsenic criteria is one case per one million people (10E-6). The proposed cancer risk factor for establishing arsenic criteria is one case per ten thousand people (10E-4). The other terms used by Maine in calculating the water quality criteria for arsenic, including those used to estimate bioconcentration of arsenic in fish and the rate of fish consumption (FCR), remain unchanged. USEPA has been asked to address whether the proposed revised human health criteria for arsenic (calculated using a 32.4 grams/day statewide fish consumption rate) are sufficient to ensure that sensitive subpopulations will not be exposed to a cancer risk from arsenic exposure greater than one case per ten thousand people (10E-4). MEDEP's justification included the existing provision in 06-096 CMR 584 that allows the establishment of more stringent criteria upon a demonstration that they are appropriate. (N)

USEPA states that the rule revisions as proposed would not be adequately protective of sensitive subpopulations. Further details on USEPA's review and determination as well as the Department's response are included below.

<u>Changes in Human Health Criteria for Inorganic Arsenic.</u>
<u>2. Comment: Support:</u>

Several commenters support a change in the human health criteria for arsenic based on the expense involved in meeting the existing criteria-based limits and the belief that the existing limits are unnecessarily stringent.

The Maine Wastewater Control Association (MWWCA) states, in order to ensure that wastewater discharges are clean enough for the receiving water, each POTW (Publicly Owned Treatment Works) has a discharge permit issued by the DEP. A few years ago the water quality criteria for arsenic were revised so low that many POTWs could not meet the limits. Many of the discharge limits were below the reporting level of the arsenic method, meaning that they were being regulated on something you can't measure. Many industries found they could not meet the calculated arsenic limits for local industries through the pretreatment program that are based on a water quality criterion more than a thousand times lower than the drinking water limits. Removing arsenic to sub part per billion levels would require very expensive changes to our processes. If MEDEP can't adopt the rule as proposed, MWWCA urges a fuller examination of all the factors involved in calculating the water quality criteria, including the cancer slope factor, bioconcentration factor, and the organic/inorganic ratio. (C)

The FMC Rockland plant is the world's largest facility processing seaweed to extract various grades of carageenan, an important natural ingredient used in food, pharmaceutical and personal care products. Low levels of arsenic naturally occur in all seaweeds, just as it occurs in the soils, ground and surface waters in Maine, so that it is present in very small quantities in our discharge . The FMC Rockland plant has incurred numerous unanticipated operating costs which significantly affect our ability to compete with overseas producers. Costs related to new water filtration and new systems for solid waste management have added millions to our annual operating costs. If the current criteria continue, FMC would be faced with having to invest several million additional dollars in treatment technology. This is disturbing not just because there appears to be no clear scientific or health-based rationale for these criteria but also because of the severe competitive impacts it will have on FMC's Rockland operation. The current arsenic rule severely threatens the long-term viability of our Rockland plant and has no demonstrable benefit to human health or the environment. FMC urges the Department to revise the inorganic arsenic water quality criteria in a manner protective of public health and the environment, and consistent with that of many other states. (D)

The City of Rockland Pollution Control Facility treats wastewater from seafood and seaweed processors containing natural, mostly organic arsenic. If Rockland is unable to maintain compliance with its effluent limitations, these seafood and seaweed processors would be required to pretreat for arsenic at considerable expense, putting these businesses at an economic disadvantage with overseas competitors and other processors who do not have arsenic limits. Many states have much higher arsenic standards than proposed by Maine DEP. Many have adopted the 10 ug/L drinking water standard and six states utilize the old drinking water standard of 50 ug/L. Therefore, even with the change in criteria proposed, Maine would still have one of the more stringent arsenic AWQs in the nation. (G)

The City of Bangor Wastewater Treatment Plant has frustration and a concern with the current inorganic arsenic limit. There is a possibility that we could be moved through the industrial pretreatment program to regulate the water supply. When sound science supports an increase in allowable concentrations, we are in support of that change (risk factors). (B)

Verso Paper Corp. supports the revisions to Maine's Ambient Water Quality Criteria for inorganic arsenic as proposed in Chapter 584. Verso is particularly interested in the setting of new freshwater and saltwater criteria for arsenic based on a risk level of 10E-4 resulting in water quality criteria of 1.2 ppb (parts per billion) and 2.8 ppb respectively. The current 10E-6 risk factor results in freshwater quality criteria of 0.012 ppb. Arsenic is naturally occurring and is found in the bedrock of Maine. As a result, it occurs in Maine's surface and ground waters. Arsenic is also found in many of the raw materials utilized in the paper-making process such as wood fibers, clays and fillers. Dischargers have little or no control of the amount of arsenic in their effluent. There is little or no predictability in what any particular test result might be nor is there any practical treatment technology to employ to reduce this discharge of arsenic. If the Maine DEP does not revise the current Inorganic Arsenic Criteria, industrial and municipal facilities that have never been in noncompliance before will be found to be out of compliance with little or no effective means to meet compliance. (F)

The Woodland Pulp LLC Mill is currently facing a proposed arsenic limit of 0.35 ppb, an amount significantly below the Department's Reporting limit (RL) of 5 ppb. This limit, which is based on inorganic arsenic for which no approved method currently exists, would be suspended until USEPA approves a method for distinguishing between organic and inorganic arsenic. In other words, the mill would be forced to operate under and comply with theoretical limits that are uncertain. This level has been set in order to comply with the current risk levels for carcinogenic pollutants in Chapter 584, including arsenic. It is difficult and expensive to track arsenic at levels this far below the minimum detection limit. (L)

Woodland Pulp LLC further states, arsenic is generally ubiquitous in the environment, found in soil, wood, lime, water and other materials. Though the mill does not add arsenic in its processing functions, small amounts exist in the mill's wastewater stream. Unlike manufacturing facilities with effluent limits for pollutants that are added to the manufacturing process and thus can be controlled by the licensee, levels of mill arsenic discharges are largely governed by the amounts of arsenic found naturally in the raw materials we use, including the background levels of arsenic found in the St. Croix River, where the mill draws its process water. The proposed revision to Chapter 584 will address these concerns by setting a 10E-4 risk factor for inorganic arsenic that is protective of human health without imposing uncertain, expensive and unnecessary financial burdens on dischargers. It will achieve protecting the environment and protecting jobs and economic development by imposing limits on arsenic discharges at levels that can be supported by the science. (L)

Response to Comments #1 and #2

Valid comments have been received both in opposition and in support of the proposed changes to Maine's inorganic arsenic human health criteria. Maine's water quality laws and our ambient water quality criteria (AWQC) are designed to ensure protection of aquatic resources, aquatic life, and human health through attainment of water quality standards including site specific classification standards. Maine takes this responsibility very seriously. The revisions proposed to *Maine's Surface Water Quality for Toxic Pollutants* (06-096 CMR 584) were initiated pursuant to P.L. 2011, c.194, *An Act to Review State Water Quality Standards* (codified at 38 M.R.S.A., § 420(2)(J)), and at the direction of the Maine Legislature's Joint Standing Committee on Environment and Natural Resources. Consistent with P.L. 2011, c.194, the proposed revisions change the cancer risk level for inorganic arsenic used in calculating Ambient Water Quality Human Health Criteria and revise the inorganic arsenic criteria accordingly. This action was taken with the intent of implementing the revisions required by P.L. 2011, c.194, consistent with Maine's water quality laws and goals, in a manner approvable by USEPA. Additional revisions were proposed by the Department (MEDEP) to incorporate necessary changes in criteria for other pollutants since Maine's last rule revision in 2005.

Based on the comments received in the first public comment period and a review of methodologies used for establishing inorganic arsenic criteria in other states and USEPA regions, the Department proposed and sought comment on revised human health criteria. The revised AWQC (IA) were developed based on analysis and revisions of several of the factors used in calculating AWQC. This involves such factors as the bioconcentration factor, fish consumption rate, and percentage of inorganic arsenic, and is described in detail in Section 1.E of this document. The Department undertook this wider revision process in response to comments received, both in opposition and support to the initial proposed rule. Those comments that represent reoccurring themes, such as cultural practices, sustenance fishing, and cumulative effects, are addressed in greater detail in subsequent sections of this document.

The Department theorizes that the commenter's concerns with anti-backsliding and anti-degradation provisions of Maine law (38 M.R.S.A., Section 464.4.F) were likely related to a cancer risk level of 10E-4 and a statewide fish consumption rate of 32.4 g/day. The Department maintains that the revised criteria developed from a more complete review of underlying factors will better allow the Department to meet the requirements of Maine law (38 M.R.S.A., Section 464.4.F(1)): "*existing in-stream water uses and the level of water quality necessary to protect those existing uses must be maintained and protected.*"

AWQC and Drinking Water Standards (DWS) are often compared, but differences in the calculation methods and application of these standards should be noted. AWQC are established pursuant to the goals described above: protection of aquatic resources, aquatic life, and human health through attainment of water quality standards including site specific classification standards. The Human Health AWQC calculation uses pollutant-specific values for cancer risk level, cancer potency factor, subject body weight and water

consumption, bioconcentration factor, and fish consumption rate. Human Health AWQC for water and organisms considers two routes of exposure: drinking of water and eating of organisms. The acceptable cancer risk level specified in Maine rule has been 1 case per 1 million people (10E-6), however USEPA allows for rates between 10E-6 and 1 case per 10,000 people (10E-4) if sensitive subpopulations are protected to at least 10E-4. The Human Health AWQC are developed pursuant to the US Clean Water Act (CWA) regardless of cost or technical difficulty in achieving them. DWS are developed pursuant to the US Safe Drinking Water Act and utilize the anticipated cost of compliance using available treatment technology in the calculations, equating to cancer risk levels of 1 case per 1,000 people (10E-3). DWS consider one route of exposure: drinking of water. For some states, USEPA has approved use of the previous national DWS of 50 ug/L or current DWS of 10 ug/L as their AWQC (IA). However, USEPA indicates that this has only been done where it represents those states' most stringent criteria to date and that they are not considered necessarily protective of human health. Unfortunately, there is no consistency in the AWQC (IA) approved by USEPA across the country. Both the Human Health AWQC and DWS utilize an underlying factor of risk to the population, but their respective acceptable risks are different.

B. Section 4: *Risk levels*. and
Appendix A, Table 1: *Criteria for Priority Pollutant listed pursuant to 304(a) of the Clean Water Act* and *Footnotes to Table 1*.

Numerous commenters provided comments regarding the proposed change in the arsenic cancer risk factor from one case per one million (10E-6) to once case per ten thousand (10E-4) and in the resulting changes in arsenic human health criteria for consumption of water and organisms from 0.012 ug/L to 1.2 ug/L and in consumption of organisms only from 0.028 ug/L to 2.8 ug/L. As the former results in the latter, comments received both in opposition and support tended to combine these proposed changes. As there were no comments received regarding proposed changes to any other pollutant listed in Appendix A, Table 1, comments involving these two areas are included together.

Section 4: *Risk levels*.

Change in Cancer Risk Level for Inorganic Arsenic
3. Comment: Opposed:

Several commenters oppose the proposed change allowing the use of a (10E-4) risk level to calculate human health criteria for arsenic.

> NRCM and Maine Rivers state that arsenic is one of very few known human carcinogens. This proposal will potentially allow 100 times more arsenic into Maine's aquatic environment. (H)

The HBMI state that the initial changes proposed to Chapter 584 will increase cancer risk for our tribal membership. (J) These changes propose weakening the cancer risk level from one in one million to one in 10,000 which does not adequately protect general populations and, in particular, sensitive populations such as the Maliseets and other Maine tribes that practice sustenance fishing. (A) Combining a weakened cancer-risk level with an already inadequate fish consumption rate to establish an arsenic water quality criterion will not protect the subsistence lifeways that embody our culture and traditions. (J) Traditional uses have been modeled by Wabanaki Traditional Cultural Lifeways Exposure Pathway Scenario. The proposed rule changes do not take into consideration other arsenic exposure pathways from drinking and cooking with groundwater resources. The health issues that our tribal members face are increasing in part due to the lack of available clean resources like water and traditional foods. Tribal culture subsisted for thousands of years living on the food and water provided by the land and those are the resources that we need to protect for the health, safety and wellbeing of the next generations and for today. (A)

Several commenters observed that while USEPA's ambient water quality methodology does provide a range of cancer risk levels from ten to the minus four to ten to the minus six (I), criteria for carcinogens should not be set at a level that would result in a cancer risk level greater than 10E-4 for sensitive subpopulations. (Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000) EPA-822-B-00-004). (I)(J)(N)

The PIN states that under Maine DEP's proposal, tribal people carrying out sustenance fishing practices would be exposed to cancer risks that would exceed 10E-4. USEPA methodology indicates that a more protective risk level should be chosen. It is important for Maine DEP to understand that for populations of people that eat more fish than the general population, such as Penobscot tribal members with sustenance fishing rights, you are increasing their cancer risk beyond the 10E-4 level. (I)

USEPA states that while Maine's criteria are derived based on a nominal cancer risk factor of 10E-4, USEPA must consider afresh the appropriateness of the other terms Maine used (in concert with this new risk factor) to calculate the proposed arsenic criteria, in order to address Maine's question whether the proposed criteria in fact provide a 10E-4 level of protection to sensitive subpopulations. This is because Maine's new cancer risk factor eliminates a 100-fold factor of conservatism that previously existed when USEPA approved the now-current criteria. (N)

USEPA further states that MEDEP has indicated "*in the event that sensitive subpopulations and/or Maine itself wish to pursue establishing even more protective standards for specific waters, additional protection is provided in the existing rule (06-096 CMR 584), Section 3.B(2) through the ability for parties to request establishment of site specific human health criteria*". However, with the existing fish consumption rate of 32.4 grams/day and the proposed new cancer risk factor, USEPA does not agree that Maine's site-specific revision process can separately address USEPA's concerns. Such an approach would transform Maine's

initial burden (to establish that revised water quality criteria are sufficient to "protect the designated water uses," 40 CFR 131.5(a)(2)) into a public burden to submit data and other information to the State demonstrating that more stringent site-specific criteria are warranted. Furthermore, USEPA notes that under Chapter 584 such site-specific criteria could only be developed "as part of a waste discharge license proceeding." Focusing on site-specific criteria only in connection with a particular permit has the potential to deprive the State of opportunities to evaluate criteria in a more comprehensive way across a water body. The current structure also inevitably ties the deliberation of a site-specific criterion to the potential timing demands of a particular permit transaction, possibly depriving the State of the opportunity to consider fully the broader issues raised when evaluating whether to adopt a new criterion. (N)

USEPA states that Maine has not demonstrated that its initial proposal to revise statewide arsenic criteria will be protective of sensitive subpopulations to no greater than a 10E-4 cancer risk level. In deriving the proposed criteria, Maine failed to consider adequately the exposure to arsenic of subsistence fishers that are members of the Maine Indian Tribes, the Penobscot nation and Passamaquoddy Tribe in particular. (N)

Several commenters state that new scientific evidence indicates that arsenic is a more potent carcinogen than was previously understood (H)(N). USEPA states that current national recommended water quality criteria and the current USEPA IRIS cancer slope factor (as of November 2011) are based on studies which indicated risk of skin cancer due to exposure to arsenic. Newer studies, however, indicate that arsenic exposure also results in internal cancers such as bladder and lung cancer. The National Research Council and the USEPA Science Advisory Board provided advice on the assessment of risks of inorganic arsenic recommending that the risk of arsenic induced internal cancers be included in evaluating the health effects of arsenic, but it has not yet been finalized by the Agency. (N) NRCM and Maine Rivers state, as a result, USEPA is currently considering increasing the arsenic cancer slope factor up to 25 times. Thus, it makes no sense at a time when USEPA is recognizing an increased threat from arsenic that MEDEP is proposing to allow substantially more of it into our aquatic environment. (H)

NRCM and Maine Rivers further state, USEPA's pretreatment process is supposed to necessitate POTW operators to check their inputs for toxic contaminants and then require that the contaminants be dealt with if they are detected. Further, Chapter 530 allows the flexibility to set site specific criteria for individual dischargers with high arsenic inputs from a drinking water utility in their system through a Use Attainability Analysis (UAA). We do not believe it is acceptable to simply relax standards so that POTWs do not need to perform their pretreatment function or that it is necessary to do so for the entire state so that the minority of facilities that have arsenic problems do not have to perform a UAA or petition for a site specific criterion. (H)

USEPA recommends that Maine DEP proposes statewide arsenic criteria that MEDEP can demonstrate are protective of the general population as well as the sensitive subpopulations in Maine, notably the Maine Indian Tribes' subsistence fishers. Such criteria should be derived from scientifically sound values for the different variables that comprise the calculation of the criteria including, but not limited to, a supportable FCR. (N)

Section 4: *Risk levels.*

Change in Cancer Risk Level for Inorganic Arsenic
4. Comment: Support:

Other commenters expressed support for the proposed revision to the cancer risk level.

FMC Corporation and the Arsenic Legislation Coalition (ALC) state that inorganic arsenic is naturally present throughout our environment. In areas of the world where very high concentrations of arsenic are found in drinking water, arsenic has been shown to cause increases in some cancers; however, while USEPA regulates arsenic as though risks are present at low levels, no increased risk has been observed for the normal range of arsenic in food and water in the United States. Maine's current AWQC (IA) of 0.012 ug/L for water plus organisms (e.g., fish) and 0.028 ug/L for organisms only are even lower (more stringent) than the USEPA AWQC (IA). The USEPA methodology for deriving Human Health AWQC allows AWQC to be based on theoretical incremental risks ranging from 10E-6 or, one in a million, to 10E-4, or one in 10,000. These are only theoretical risks, not actual risks. The proposed change in the theoretical risk level for the arsenic AWQC is unlikely to result in any increase in actual health risks to any Maine resident. The primary reason is that the natural arsenic concentrations in surface waters are similar to the concentrations of the proposed AWQC (IA) with a median As concentration in US rivers of 1 ug/L and a 75^{th} percentile of 3 ug/L. Consequently, the proposed arsenic AWQC of 1.2 ug/L for water and organisms will have little or no likelihood of increasing natural water concentrations in rivers. The proposed AWQC (IA) of 2.8 ug/L for organisms only will be applied primarily to non-potable waters such as estuarine and marine waters. Arsenic concentrations in coastal waters and estuaries are higher on average than concentrations in freshwater, and are generally in the range of 1-3 ug/L, so the AWQC (IA) for organisms only will not change arsenic concentrations in estuaries and coastal waters. There is no human health benefit of setting AWQC (IA) to levels below the proposed criteria because naturally-occurring background levels are in this range. As long as natural levels do not change, people will not have increased exposure to arsenic and, therefore, will not have increased risk. (E)

FMC Corporation and the ALC further state, the proposed Chapter 584 inorganic arsenic criteria are protective of human health and are more stringent than criteria approved by most other states. The criteria are also consistent with USEPA methodologies and guidelines for developing human health criteria and, as long as

there are no increases above natural levels, will not lead to increased exposure to arsenic for Maine residents. Even huge fish consumers will be protected because the arsenic concentrations in fish will not change. Despite the nominal increase of the theoretical cancer risk level to 10E-4, the actual incremental risk will be far lower, and most likely will be negligible. (E)

Verso Paper Corporation states that an inorganic arsenic WQC risk factor 10E-4 is based on sound science and remains protective of the environment while allowing dischargers who in reality have no control over the discharge of arsenic to remain in compliance. Current levels of arsenic found in many of Maine's public and private drinking water supplies exceed even the new ambient water quality limits proposed in Chapter 584 based on the 10E-4 risk factor and a resulting water quality criteria of 1.2 ppb. Put simply, the proposed water quality criteria in Chapter 584 are still far more stringent than Maine's drinking water standards for the protection of human health. Passing Ch 584 as proposed will not result in an increase in arsenic discharged and it will not have a negative impact on the environment. The science shows that the new inorganic arsenic criteria will be protective of aquatic and human life and will not needlessly put many industrial and municipal dischargers in an out-of-compliance situation with little or no means of control. (F)

Response to Comments #3 and #4

USEPA's Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000)(EPA-822-B-00-004), (USEPA's AWQC Methodology) Section 2.4 indicates, "*EPA believes that both 10*(e-6) *and 10*(e-5) *may be acceptable for the general population and that highly exposed populations should not exceed a 10*(e-4) *risk level.*" "*EPA understands that fish consumption rates vary considerably, especially among subsistence populations, and it is such great variation among these population groups that may make either 10*(e-6) *or 10*(e-5) *protective of those groups at a 10*(e-4) *risk level.*" "*Such determinations should be made by the State or Tribal authorities and are subject to EPA's review and approval or disapproval under Section 303(c) of the CWA.*" to ensure that the criteria are "*adequately protective of the most highly exposed subpopulation.*" USEPA allows for rates between 10E-6 and 10E-4 if sensitive subpopulations are adequately protected. The revision in cancer risk level from 10E-6 to 10E-4 is in response to P.L. 2011, c.194, *An Act to Review State Water Quality Standards* (codified at 38 M.R.S.A. § 420(2)(J)). It is Maine's intention that AWQC (IA) be protective of all consumers, including highly exposed populations. As noted above, based on comments received on the initial proposed rule, the Department proposed revised human health criteria based on revisions to several of the factors used in calculating AWQC. The Department has reviewed each of the appropriate factors involved and provides details on the revised criteria at Section 1.E of this document.

The Department theorizes that USEPA's concerns with Maine's process for establishing site-specific human health criteria were likely greater when considering a cancer risk level of 10E-4 and a statewide fish consumption rate of 32.4 g/day, and that these concerns are likely lessened with the revised criteria. Even with revised criteria developed from a more complete review of underlying factors, the Department maintains that in the event that

sensitive subpopulations and/or Maine itself wish to pursue establishing even more protective standards for specific waters, additional protection is provided in the existing rule (06-096 CMR 584), Section 3.B through the ability to request establishment of site specific criteria. If the Board of Environmental Protection determines "*there is an identifiable population(s) using a water body whose use(s) is distinct from that of the population considered when establishing the statewide criteria*" "*it shall consider activities or customs that would constitute a use of the water body substantially different in type or extent than that upon which statewide criteria are based.*" Section 3.B(2). Concerns have been expressed regarding the requirement that site specific criteria must be adopted as part of a waste discharge license proceeding. However, "*where the Department finds a request for site-specific criteria may affect other sources discharging to the same waterway, it may, pursuant to 38 MRSA, Section 414-A(5)(A), reopen for modification those licenses for consideration in the same proceeding.*" Section 3.B. As noted in the Response to Comments for the 2005 revisions on Chapter 584 on this very topic, "*this will allow one presentation of the facts, participation by all parties, and consistent licenses*", thus ensuring an appropriate approach to this issue.

Appendix A, Table 1: *Criteria for Priority Pollutant listed pursuant to 304(a) of the Clean Water Act* and *Footnotes to Table 1.*

Fish Consumption / Sustenance Rights
5. Comment: Opposed:

Numerous commenters provided comments regarding the appropriateness of the fish consumption rate used by the Department, the study from which data was obtained (ChemRisk (1992), Ebert et al (1993)), and the issue of sustenance rights for Native Americans.

The following comments were provided by the PIN and the HBMI:

> To use a 10E-4 risk level for calculating the AWQC for inorganic arsenic and the 32.4 gram per day fish consumption rate used by Maine DEP for the arsenic criteria would result in an ambient water quality and human health criteria for inorganic arsenic criteria of 1.2 ug/L, which would not adequately protect the health of Penobscot tribal members. The Penobscot Nation has legally protected sustenance fishing rights within their reservation waters which would be affected by this rule. The changes to this rule would prevent tribal members from being able to fully exercise these sustenance rights and would put our people's health at risk. (I) The "Wabanaki Traditional Cultural Lifeways Exposure Pathway Scenario" reflects a Wabanaki subsistence exposure pathway via fish consumption as 286 - 514 grams per day, a far cry from the state's fish consumption rate of 32.4 grams per day (I)(J).

Maine DEP commonly refers to consumption rates from the 1992 ChemRisk study as evidence that the 32.4 grams per day rate it uses is protective of Maine tribes. However, we believe the study is flawed and does not accurately reflect consumption rates of Penobscot or other tribal people. (I)(J) Clearly Penobscot people would be exposed to much higher and unacceptable risk levels when consuming fish at sustenance levels. (I) The ChemRisk study was initiated after fish consumption guidelines were already in place, thus potentially characterizing fish consumption that is inhibited or suppressed by toxic exposure concerns (I)(J) when people were being warned against eating fish from Maine rivers, including the Penobscot. The surveys for the study were done in 1990. Maine Bureau of Health and ME DEP first issued consumption advisories in 1987 for the Penobscot, and then issued more restrictive advisories in 1990. (I)

The sample size of 43 Native Americans anglers is too low to make any statistically valid conclusions regarding fish consumption in this population. (J) Because the ChemRisk study only surveyed people that held a 1989 Maine resident fishing license it likely did not sample Penobscot sustenance fisherman (I) or Maliseet tribal members who obtain their licenses from tribal governments (J). Penobscot tribal members get sustenance fishing licenses directly from the tribe and are not required to get Maine recreational licenses to fish in tribal waters, including the Penobscot River. Likewise, it is our experience that tribal people who carry out subsistence lifestyles are not likely to be "captured" in mail or telephone surveys. We believe that the consumption rates from the Wabanaki Exposure Scenario Study more accurately reflect sustenance fishing practices and demonstrate the inadequate protection offered by the proposed rule changes. (I)

USEPA provided the following comments:

USEPA believes that Maine's reliance solely on the ChemRisk survey of recreational anglers in Maine in the 1989-1990 fishing season is not justified in determining an adequate level of protection for the Maine Indian Tribes. First, the ChemRisk study involved a survey of recreational anglers only, and did not consider fish consumption by persons who take fish for their individual sustenance, e.g. members of the Maine Indian Tribes. The ChemRisk study was based on a survey of anglers who were required to obtain recreational fishing licenses from the State of Maine. However, the Maine Indian Tribes have asserted to USEPA during consultation that members of the Penobscot Nation and the Passamaquoddy Tribe are not required to obtain such licenses under state law. By definition, therefore, members of the Penobscot Nation and the Passamaquoddy Tribe were not included in the population surveyed. MEDEP has indicated to USEPA that some "anglers of Native American heritage" who fish for recreational purposes and who are required to obtain a fishing license from the State were surveyed by ChemRisk; however, that fact does not address or cure USEPA's concerns because there is no indication the survey assessed subsistence tribal consumers. Thus, USEPA concludes that Maine is not in possession of adequate local or specific data that would support use of a FCR of 32.4 grams/day, in combination with a cancer risk factor of 10E-4, as part of the determination of an adequate level of protection for the Maine Indian Tribes' subsistence fishing use. (N)

USEPA notes that the Maine Implementing Act, as ratified by the federal Maine Indian Claims Settlement Act, specifically recognizes the reserved right of the Penobscot Nation and Passamaquoddy Tribe to take fish within the boundaries of their Indian reservations for their individual sustenance. There may also be other tribal uses that merit specific examination or further documentation to determine whether there is an identifiable population that is making a use of waters distinct from that of the general population. For example, the Tribes and other subpopulations may engage in fishing for the sustenance in waters outside the boundaries of the tribal reservations. (N)

For use in these revised criteria, EPA does not believe that Maine has adequately demonstrated that a statewide FCR of 32.4 grams/day accurately reflects the Maine Indian Tribes' rate of fish consumption. In particular, EPA does not believe that Maine has adequately demonstrated how this FCR would protect the Maine Indian Tribes' unique uses of the waters in the State, especially the right of the Penobscot Nation and the Passamaquoddy Tribe to take fish for their individual sustenance. (N)

Appendix A, Table 1: *Criteria for Priority Pollutant listed pursuant to 304(a) of the Clean Water Act* and *Footnotes to Table 1.*

Fish Consumption / Sustenance Rights
6. Comment: Support:

The following comments were provided by the principal author of the ChemRisk (1992) and Ebert et al (1993) reports.

The 32.4 g/day fish consumption rate that forms the basis for Maine's current WQC is based on the assumption that one-half pound (227 g) of recreationally caught fish obtained from Maine waters may be consumed weekly throughout the year. The ChemRisk and HBRS (1992) findings are directly relevant to the selection of an appropriate fish consumption rate for rulemaking. The USEPA has established a methodology for states and tribes to develop ambient water quality criteria (USEPA 2000). This methodology recommends the following hierarchy for selecting fish consumption rates (FCRs) to be used in the following order of preference: 1. site-specific FCR that represents at least the central tendency of the population surveyed (either sport or subsistence or both); 2. reports from existing fish intake surveys that reflect similar geography and population groups (i.e. from neighboring State or Tribe or a similar watershed type); 3. use intake rate assumptions from national food consumption surveys; 4. USEPA's defaults of 17.5 g/day for the general adult population and sport fishers, and 142.4 g/day for subsistence fishers. (K)

USEPA (2000) uses the default rate of 17.5 g/day in its national 304(a) criteria derivations. It has been chosen to be protective of the majority of the general population. In addition, USEPA states that it "*has provided default values for States and authorized Tribes that do not have adequate information on local or regional consumption patterns, based on numerous studies that EPA has reviewed*

on sport anglers and subsistence fishers." While USEPA's methodology allows substantial flexibility in the development of state-specific or waterbody-specific WQC, it is clear that protection of every potentially exposed individual is not its goal. Instead, the methodology strives to protect average consumption among all potentially exposed populations, including higher consuming subpopulations. (K)

USEPA's preferred methodology for selecting fish consumption rates is the use of State-specific data where available. Such data are available in Maine for the general angler population and also for various, potentially sensitive ethnic subpopulations in the state. A one-year state-wide survey of licensed Maine recreational anglers was conducted in 1991 (ChemRisk 1992; Ebert et al, 1993). Those survey data indicated that 95 percent of the Maine anglers surveyed who consumed sport-caught fish obtained through both open-water and ice-fishing in Maine, consumed a total of 26 g/day or less. At the time the survey was conducted, there were fish consumption advisories present on only 200 miles of the more than 37,000 miles of rivers, streams and brooks in the state, and there were no advisories present on any of Maine's roughly 2,500 lakes and ponds. As a result, Maine anglers had the ability to fish from a nearly unlimited number of non-advisory Maine waterbodies during that time period. (K)

Fish consumption rates for a number of identified subpopulations were also estimated based on those survey data. The group with the highest consumption rates was those individuals who identified themselves as Native Americans. A total of 148 Native Americans were included in the surveyed population (11 percent of the population who participated) and 96 of those individuals reported consuming freshwater fish that had been sport-caught. While the median consumption rate (50^{th} percentile) of 2.3 g/day for this subpopulation was similar to other groups evaluated, the arithmetic mean of 10 g/day was higher than the average of 6.4 g/day for the total population, and the 95^{th} percentile of 51 g/day (since corrected to 60 g/day based on a revision of sample size) was nearly double the 95^{th} percentile for the total angler population (ChemRisk and HBRS 1992). These data indicated that there was a portion of the Native American population that, on average, was consuming fish at higher rates than the general angler population. However, only six percent of the 96 Native Americans who consumed fish consumed at rates higher than the 32.4 g/day upon which the current WQC is based. In addition, the maximum rate reported by this subpopulation (162 g/day) was lower than the maximum consumption rate of 182 g/day reported for the entire population surveyed. Thus, while the average Native American angler consumed more than the average recreational angler, the consumption rates for the very highest consumers were similar to those for the population at large. (K)

Questions regarding potential fish consumption of Native American tribal members have arisen, in part, from the reported results of a dietary reconstruction study conducted by Harper and Ranco (2009). These authors estimated historical consumption rates between 286 and 514 g/day for Maine's Native American tribes based on assumptions about caloric intake and literature-based information about

the historical dietary practices of Native Americans in the 16th, 17th, 18th, and 19th centuries. The stated intent of that report was to reflect the historical patterns of individuals fully using their natural resources, and the report asserted that individuals could not return to these patterns because of present-day environmental contamination conditions but that they would return to this behavior "once protective standards are in place." This report implies that impaired water quality is the reason that individuals do not currently consume fish at the historically higher rates, and that a substantial number of them would return to those historically higher consumption rates if water quality was improved. However, neither assertion is likely to be true. (K)

All individuals who lived in Maine in the 16th, 17th, 18th and 19th centuries lived in a subsistence manner. Thus, this behavior was not limited to the tribes. Hunting, fishing, farming and trading were the only way that individuals could feed themselves as there were no widely available commercial foods. Due to the current commercial availability of fresh, frozen and prepared foods in stores and restaurants, and public assistance for low income persons, this lifestyle is no longer necessary for survival in Maine. (K)

At the time that the Maine angler survey was conducted, advisories were limited to specific main stem reaches of four warmwater rivers in the State but there were no advisories on any other waterbodies. Thus, Maine anglers had a vast number and variety of non-advisory fishing resources available at that time. Despite this, only 65 percent of the licensed Native Americans who participated in the survey actually consumed sport-caught fish. This percentage was lower than the 77 percent of the total angler population surveyed that consumed sport-caught fish. Thus, even when nearly unlimited resources were available, none of the Native Americans included in the survey consumed at the levels asserted by the Harper and Ranco study. (K)

All of the available data indicate that it is highly unlikely that a substantial number of Native Americans in Maine would return to historical subsistence behaviors that occurred prior to the 20th century even if Maine waterbodies were returned to a pristine condition. This is largely due to the commercial availability of a wide variety of market-based foods. In fact, when nearly all of Maine's water bodies were viewed as pristine, due to the lack of advisories at the time the Maine angler survey was conducted, this type of behavior was not exhibited. It is recommended that the current fish ingestion rate of 32.4 g/day be retained as the basis for the WQC for arsenic. This rate is protective of more than 95 percent of the total angler population in Maine and is protective of 94% of the Native American angler population in the state. It is based on state-specific data, as outlined in the first tier of USEPA's (2000) hierarchy, and it exceeds the rate of 17.5 g/day that USEPA uses to develop its national water quality criteria. (K)

The following comments were provided by the ALC.

As a legal clarification, Native Americans in Maine do not have sustenance fishing rights outside the tribal reservations, and the geographic scope of the tribal reservations is limited under the terms of the Act to Implement the Maine Indian Claims Settlement (the "Implementing Act"), 30 MRSA, Sections 6201-6214. The Implementing Act gives the members of the Penobscot nation and the Passamaquoddy Tribe sustenance fishing rights "within the boundaries of their respective Indian Reservations." Outside those tribes' reservations they are subject to the same fishing restrictions as any other citizens of the State, including season and bag limits. Further, the Houlton Band of Maliseet Indians (HBMI) does not have sustenance fishing rights at all. Outside of the Penobscot Nation and Passamaquoddy Tribe reservations, no one has a right of sustenance or subsistence fishing. (M)

The Penobscot Nation Reservation is defined in the Implementing Act as Indian Island and all islands in the Penobscot River north of Indian Island that existed on June 29, 1818, excepting any island transferred to anyone outside the Penobscot nation subsequent to June 29, 1818 and before 1980. Those islands do not include any portion of the Penobscot River (reference 6/3/97 letter from Maine Office of Attorney General to USEPA Region 1). Nor does the Penobscot River include islands in the branches of the Penobscot River (reference 12/16/93 letter from Maine Office of Attorney General to Bureau of Indian Affairs). (M)

Principles of riparian ownership do not apply to extend the Penobscot Nation Reservation to the middle of the Penobscot River because the Penobscot Nation does not "own" the Penobscot Nation Reservation. Rather, the State of Maine owns the Penobscot Nation Reservation in trust for the Penobscot Nation. The scope of the Penobscot Nation Reservation, therefore, is only as delineated in the Implementing Act, and does not extend to any portion of the river itself. (M)

Therefore, no one has a right to sustenance fishing in the Penobscot River, or anywhere else in the State of Maine outside the tribal reservations, including the Meduxnekeag River – and it would violate the Implementing Act to recognize such a right. Native Americans not only will not return to "historic consumption rates" outside the tribal reservations, but they are not permitted to do so pursuant to Maine law. Further, it would be impermissible for the DEP to establish state-wide numeric human health water quality criteria that are protective of a tribal sustenance fish consumption right that does not exist outside the tribal reservations. If the Penobscot Nation or the Passamaquoddy Tribe can demonstrate different fish consumption rates for waters within their reservations, however, it may be possible for the Tribes to meet the criteria in Chapter 584.3(B) for adoption of site-specific water body criteria. (M)

Response to Comments #5 and #6

The Department recognizes that there may be increased consumption rates as a result of subsistence fishing. The Department chooses not to substantially address comments made regarding the physical boundaries of the areas where sustenance fishing rights exist, the return to historic consumption rates in areas where sustenance fishing rights unquestionably exist, or other issues related to the Maine Indian Claims Settlement Act cited above, as these issues need not be addressed to establish protective AWQC. The Department's silence on these issues should not be construed as agreement with the commenters. Instead, the Department chooses to focus on the larger issues involved with establishing human health criteria for inorganic arsenic that will be appropriately protective of all Maine consumers, including high risk populations.

The Department offers one exception to the above note. Commenters have questioned whether tribal members require state fishing licenses and whether members may have been excluded from the ChemRisk survey. The extent of tribal or Maine Indian Tribal State Commission jurisdiction over water bodies within Indian territories is described in the Maine Indian Claims Settlement Act. 38 M.R.S.A. § 6207. The Penobscot Nation and Passamaquoddy Tribe have exclusive jurisdiction over fishing on any pond located wholly within Penobscot or Passamaquoddy territory which is less than 10 acres in size. 30 M.R.S.A. § 6207(1). The Maine Indian Tribal-State Commission has exclusive jurisdiction over fishing on any pond 10 or more acres in size if 50% or more of the linear shoreline is within Penobscot or Passamaquoddy territory, and in any section of a river or stream, both sides of which are in Indian territory or one side of which is within Penobscot or Passamaquoddy territory for a continuous length of ½ mile or more. 30 M.R.S.A. § 6207(3). The Maine Department of Inland Fisheries and Wildlife (MDIFW) indicates that tribal members do not require state fishing licenses for fishing in tribal waters, but do require state licenses when fishing in non-tribal waters. Where state licenses are required, the initial license is issued by the Tribe, whereas subsequent lifetime licenses are issued by MDIFW. The number of tribal waters in Maine is relatively small in comparison to all waters. It is possible that some individuals may have fished exclusively in tribal waters in 1989-1990, not required a state fishing license, and thus were not included in the population of license holders potentially surveyed. Although these individuals would be as valid as other anglers surveyed, the Department notes that such surveys typically only sample a cross-section of the population and do not include every possible individual.

As to concerns with the validity of the ChemRisk (1992) and Ebert (1993) study/reports, the Department provided information on the origin of Maine's fish consumption rate in its Response to Comments on its 2005 revisions to Maine Rule 06-096 CMR 584. "*ChemRisk* (Ebert et al) *conducted a mailed survey of 2,500 randomly selected Maine anglers for the 1989-1990 fishing season, obtaining responses from 1,612 anglers (64% response rate). From these data estimates have been obtained a 95th percentile fish intake value of 21 grams per day for all anglers, 26 grams per day for fish consuming anglers, and 51 grams per day for a subset of anglers of Native American heritage (N=148)*[1,2]. *These above estimates reflect consumption of recreationally caught fish from*

all waters." "These data have been reviewed by EPA and are listed as one of the key studies providing information on freshwater recreational fish consumption[3]."

[1]ChemRisk, 1992. Consumption of freshwater fish by Maine anglers. A Technical Report. Portland, ME. ChemRisk, a division of McLaren/Hart. Revised July 24, 1994.
[2]Ebert E, Harrington NW, Boyle KJ, Knight JW, Keenan RE, 1993. Estimating consumption of freshwater fish among Maine anglers. North American Journal of Fisheries Management, Vol. 13:737-745.
[3]USEPA, 1997. Exposure Factors Handbook. US Environmental Protection Agency, Office of Research and Development, Washington DC. EPA/600/P-95-002Fa.

Currently, Maine utilizes a fish consumption rate of 32.4 grams/day (the equivalent of one 8-ounce fish meal per week). This represents the 97th percentile for Maine recreational anglers for all waters, the 94th percentile for Native American anglers in Maine, and exceeds USEPA's current consumption rate of 17.5 grams/day that is based on the 90th percentile consumption rate for the US adult population (USEPA's AWQC Methodology Section 1.6) and USEPA's previous rate of 6.5 grams/day. Maine notes that, at this time, USEPA is still using the 6.5 gram/day consumption rate for calculating arsenic criteria. Using a cancer risk factor of 10E-6, Maine maintains that the 32.4 gram/day fish consumption rate is not only protective of the sensitive subpopulation of fish consuming recreational anglers, but is also protective of the higher-end sensitive subpopulation of native American recreational anglers based on the only empirical data of which Maine is aware (ChemRisk (1992), Ebert et al (1993)). The question remains as to whether this rate is adequately protective with the 10E-4 risk factor.

Though numerous commenters, including USEPA, criticize the ChemRisk 1992 (Ebert et al 1993) study, it is cited by USEPA in the 2011 Exposure Factors Handbook in both Section 10.10.3, *Recommendations – Recreational Freshwater Anglers,* and Section 10.10.4, *Recommendations – Native American Subsistence Populations.* As to its adequate representation of the Native American population, the ChemRisk study sampled 0.12% of the general population in Maine and approximately 1.9% of the Native American population in Maine. The ChemRisk study sampled 0.59% of the general population fishing license holders and 4.5% of the Native American lifetime fishing license holders on non-tribal lands based on current numbers. Therefore, contrary to assertions made by commenters, Native Americans in Maine were represented at a higher percentage than was the general population.

As noted by commenters, some fish consumption advisories were in place at the time of the ChemRisk survey. The first fish consumption advisories were due to dioxin in the Androscoggin River in 1985, the Kennebec River and Penobscot River in 1987, and the Presumpscot River and West Branch of the Sebasticook River in 1990. The 1990 advisory was subsequently revised and removed in 1992. Additional advisories have been established since the ChemRisk survey period, based on mercury, dioxin, DDT, and other contaminants. Additionally, public awareness of historical pollution in industrialized rivers can be expected to have suppressed fish consumption on a local basis. The Department is unable to quantify the extent of suppression due to historical pollution in the major rivers or the dioxin advisories in place at the time of the ChemRisk study, but believes that the ChemRisk (Ebert et al) estimates of fish consumption for

rivers and streams as well as the inclusive "all waters" category are likely to have been affected to some degree. The Department believes that this effect is likely similar in other studies of recreational and subsistence anglers that are used elsewhere and nevertheless considers the ChemRisk (Ebert et al) study to provide the best available Maine-based data.

The ChemRisk (1992) and Ebert et al (1993) study calculated Fish Consumption Rates by combining rates from all sources including rivers/streams, lakes/ponds, open water fishing, ice fishing, personally caught and gift fish. The Department has recently calculated the 99th percentile of this data to be 37.6 grams/day for lakes/ponds and 138 grams/day for all waters to represent the most highly exposed subpopulation. To meet the responsibility in USEPA's AWQC Methodology of ensuring criteria are "*adequately protective of the most highly exposed subpopulation*" with a change in the Cancer Risk Level noted above, the Department proposed to use the 138 gram/day (99th percentile) value as a revised state-wide fish consumption rate in calculation of inorganic arsenic AWQC. As this is local population-specific empirical data, it is a preferred value to the national default subsistence fishing consumption rate of 142.4 grams/day (also 99th percentile) according to EPA's AWQC Methodology (Sections 1.6, 2.6, 2.8.2). Further, as the ChemRisk (1992) and Ebert et al (1993) study is cited by EPA in the Exposure Factors Handbook in both Section 10.10.3. *Recommendations – Recreational Freshwater Anglers* and Section 10.10.4. *Recommendations – Native American Subsistence Populations*, Maine believes that the validity of the study and the protective nature of its revised fish consumption rate for sensitive subpopulations (138 grams/day) are demonstrated.

C. Inorganic Arsenic Portion of Total Arsenic (Inorganic Factor)
7. Comment:

Woodland Pulp LLC states that much of their arsenic discharges are of "organic" and not "inorganic" arsenic. Organic arsenic is universally accepted as not harmful to human health or the environment and is not regulated by the Department. Assumptions regarding the amount of inorganic arsenic (versus the harmless organic) in fish tissue are wildly off the mark. Although inorganic arsenic levels in fish tissue range only from 2-10%, the assumption is that 100% of arsenic in fish tissue is inorganic. This results in effluent limits "orders of magnitude lower than necessary to protect human health". Indeed, our arsenic limit of 0.35 ppb is just for the inorganic arsenic, with no limits on organic arsenic. The Department has used an assumption that 50% of a facility's arsenic discharges are organic. The ratios of inorganic to organic arsenic in our discharges vary widely, and with no obvious correlation to mill operations. As a result, there is a significant chance that the mill's organic arsenic discharges will be subject to its limit, even though there is no harm to human health or the environment from organic arsenic. The existing AWQC (IA) are based on flawed assumptions regarding the levels of inorganic arsenic that may exist in our environment without adversely impacting human health. The current risk level of 10E-6 in Chapter 584 assumes fish consumption

rates that are almost double the consumption rates used by U.S. EPA and an excessive bioaccumulation. (L)

FMC Corporation and The Arsenic Legislative Coalition state that on average, in freshwater fish only 10% of the arsenic is inorganic while in marine and estuarine fish only 2% is inorganic. (E)

Response to Comment #7:

Arsenic is widely present in the environment. It is found in our soils, water, and in the raw materials used by our manufacturers. In guidance developed following the 2005 rule revision, Maine noted a wide range of inorganic factors in the literature between 1% and 99% depending on the arsenic source represented. Maine settled on a rebuttable presumption of 50% inorganic/organic in total arsenic to be used in applying the established criteria through effluent limitations. At the suggestion of USEPA and from the example of other states and USEPA regions, Maine is proposing to establish an inorganic factor in AWQC (IA) calculations. The current literature discusses a range of 10-30% inorganic arsenic in total arsenic.

Of many available studies, Lorensana et al (2009 scholarly review) reports, "*Data from the worldwide literature indicate the percent of inorganic arsenic in marine/estuarine finfish does not exceed 7.3% and in shellfish can reach 25% in organisms from presumably uncontaminated areas, with few data available for freshwater organisms. However, percentages can be much higher in organisms from contaminated areas and in seaweed. US site-specific data for marine/estuarine finfish and shellfish are similar to the worldwide data, and for freshwater finfish indicate that the average percent inorganic arsenic is generally <10%, but ranges up to nearly 30%.*" "*Data for freshwater organisms from presumed or known contaminated US site assessments indicated that whereas average percent inorganic arsenic values were generally <10% for finfish, the percent inorganic arsenic values for individual samples or composites of a particular type of fish can vary widely from not detected to nearly 30%.*"

It is noted that there is variability even among USEPA Regions, with some using a 10% inorganic factor, while others use a 30% inorganic factor. Some species appear to consistently have low levels of inorganic arsenic. Aside from this, some figures at the lower end of the range in reviewed studies are actually based on average results, while the maximum amounts are observed to approach or exceed the upper end of the range depending on species, portions of the organisms analyzed, etc. As Maine typically seeks to be protective of human health and aquatic life at much higher than average levels (i.e. 95th percentile), the Department is recommending the more conservative 30% Inorganic Factor.

D. USEPA Comment Regarding Application of Maine Water Quality Standards.
8. Comment:

USEPA provided the following, which is essentially a repeat of a comment that it made for the 2005 Chapter 584 rulemaking, "*at present, note that Maine's state water quality standards are not applicable to waters of the federally recognized Tribes in Maine, because the State has not specifically applied to implement its water quality standards program in these territories and EPA has not made a specific finding that the State has jurisdiction to implement the water quality standards in Tribal waters. EPA is taking no position now on whether the State has adequate authority to implement its standards in Indian territories.*"

Response to Comment 8:

Maine provides the response that it provided in the 2005 proceedings, "*Maine submits its water quality standards to EPA for approval, pursuant to Section 303 of the federal CWA, to be applicable to all State waters. Until recently, EPA has never qualified its acknowledgments as applying only to certain State waters, nor indicated that such standards as applied to the waters of the federally recognized Tribes in Maine were inconsistent with the CWA or any other federal law. The Maine Implementing Act and federal Maine Indian Claims Settlement Act provide that except for certain internal tribal matters not applicable here, the Tribes, and the lands and natural resources owned by the Tribes, 'shall be subject to the laws of the State... to the same extent as any other person or lands or other natural resources therein.' The Department thus disagrees that 'Maine's state water quality standards are not applicable to the waters of the federally recognized Tribes in Maine.*'" That Maine's water quality standards apply statewide, including in Indian Territory and Indian Reservations, has since been confirmed by the U.S. Court of Appeals for the First Circuit in *Maine v. Johnson,* 498 F.3d 37 (1st Cir. 2007).

E. Explanation of the Revised AWQC (IA):

The initial proposed revisions to the AWQC for inorganic arsenic were prompted by the Maine Legislature (P.L. 2011, c.194, *An Act to Review State Water Quality Standards*) and were limited to the cancer risk factor. Based on comments received from USEPA and other commenters and to ensure adequate protection of the general population as well as highly exposed fish consuming subpopulations, the Department conducted a wider review of the factors used for establishing inorganic arsenic criteria in Maine, other states, and USEPA regions. The Department proposed revisions to several other relevant factors, which resulted in revised AWQC for inorganic arsenic. The revised criteria are less stringent than the initially proposed criteria. However, the process utilized is considered by USEPA to be more transparent and more protective of sensitive subpopulations at the 10E-4 cancer risk level. This process has been used by other states, such as Oregon, and approved by USEPA. The factors used to arrive at the revised AWQC (IA) are described below.

Chapter 584 Inorganic Arsenic AWQC for Human Health

Parameter	2005 (previous) rule	Initial proposed rule	Adopted 2012 rule
Cancer Risk Level	1.00E-06	1.00E-04	1.00E-04
Body Weight	70 kg	70 kg	70 kg
Cancer Potency Factor	1.75 mg/kg/day	1.75 mg/kg/day	1.75 mg/kg/day
Water Consumption	2 L/day	2 L/day	2 L/day
Bioconcentration Factor	44 L/kg	44 L/kg	26 L/kg
Fish Consumption Rate	32.4 g/day	32.4 g/day	138 g/day
Inorganic Factor	50% rebuttable presumption in limits	50% rebuttable presumption in limits	30%
Criteria			
Human Health: Water and Organisms	0.012 ug/L	1.2 ug/L	1.3 ug/L
Human Health: Organisms only	0.028 ug/L	2.8 ug/L	3.7 ug/L

Cancer Risk Level: Indicated change pursuant to PL 2011, c.194, *An Act to Review State Water Quality Standards* (codified at 38 M.R.S.A. § 420(2)(J)).
Body Weight: No change is made to the standard subject body weight of 70 kg.
Cancer Potency (Slope) Factor: The 1.75 mg/kg/day is the current USEPA value, promulgated in the National Toxics Rule (1992). In 1998, USEPA established a value of 1.5 mg/kg/day in the Integrated Risk Information System (IRIS) database, however the national criteria was not revised and the 1992 value remains in effect. Both 1.75 mg/kg/day and 1.5 mg/kg/day are based on arsenic effects in skin cancer. The Science Advisory Board and National Research Council now recommend a draft potency factor of 25.7 mg/kg/day based on cancers in internal organs such as the bladder and lungs as more applicable to arsenic consumption. But, this value has not been formally adopted and USEPA advises it can not be used at this time. A date has not been provided for adoption of a revised Cancer Potency Factor. Some states and USEPA regions have utilized the 1998 IRIS factor of 1.5 mg/kg/day, though it was not formally adopted by USEPA. Based on the expectation that a revised factor may be greater than the existing factor, the Department chooses to continue to use USEPA's adopted 1992 value of 1.75 mg/kg/day and not to incorporate the less stringent, 1998 IRIS factor.
Water Consumption: No change is made to the standard water consumption rate of 2L/day.
Bioconcentration Factor (BCF): The 44L/kg value is the current BCF for USEPA (*Ambient Water Quality Criteria for Arsenic, 1984*) and Maine (2005). It is based on a limited data set of studies for two species: eastern oyster (1982) and bluegill (1980). A more recent analysis by USEPA calculated the proposed 26 L/kg value from the geometric mean of the previous studies and three additional studies on rainbow trout (1994). The revised BCF of 26 L/kg was approved by USEPA for marine waters in Oregon (2011) and USEPA HQ has recommended it for use in Maine waters statewide.

Fish Consumption Rate (FCR): As noted above, the Department is proposing to revise the FCR used in calculating AWQC for inorganic arsenic from the current 32.4 g/day to 138 g/day. This value will be protective of 99% of the high end fish consuming, Native American sensitive subpopulation in Maine pursuant to the ChemRisk (1992) and Ebert et al (1993) study.
Inorganic Factor: As noted above, the Department is applying a 30% inorganic factor (IF) in calculating AWQC for inorganic arsenic, representative of estimates of the percentage of inorganic arsenic in total arsenic. Previously, the Department did not specify an IF in calculation of AWQC (IA). However, the percent inorganic was addressed in calculation of effluent limitations for arsenic. By default, the AWQC (IA) assumed 100% inorganic arsenic. But, during limit calculations, the Department applied a rebuttable presumption of 50% inorganic arsenic, representative of the variability in previous estimates of the percent inorganic.
AWQC (IA): The described values result in Ambient Water Quality Human Health consumption of water and organisms (freshwater) criteria of 1.3 ug/L and Human Health consumption of organisms only (marine water) criteria of 3.7 ug/L.

2. SECOND PUBLIC COMMENT PERIOD MARCH 14, 2012 – APRIL 13, 2012.

During the public comment period for the revised proposed rule, the Department received comments from three parties, focused primarily along the following themes.

A. The proposed rule is still very conservative

1. Comment:

The Maine Rural Water Association (MRWA) stated, the proposed rules are still overly conservative and are stricter than the majority of other states. Even though these proposals are decreasing the burden they are still too restrictive. Some areas of the State with high natural levels of arsenic will continue to find compliance with the proposed revised criteria to be a challenge particularly if their drinking water or an industry impacted by soil arsenic concentrations such as potato, landfill leachate, paper, wood products, fish or marine products discharges to the treatment plant. (O)

The Arsenic Legislation Coalition (ALC) supports the proposed changes in the AWQC for inorganic arsenic because, as it described in its earlier comments, they will not cause increased exposures to inorganic arsenic and, thus will be health protective for all Maine residents. Each of the revised factors can be shown to be very conservative. (P)

The City of Rockland Pollution Control Facility stated, when the legislature passed LD 515, An Act to Review State Water Quality Standards, it was recognized that the current Chapter 584 arsenic AWQC was unnecessarily stringent. The least complex method to address this issue was to modify the Cancer Risk Level, leaving all other parameters unchanged. The revised criteria will continue to put an unnecessary burden on municipalities and industries in Maine. The City of Rockland appreciates and supports Maine DEP efforts in proposing important modifications to the Chapter 584 arsenic AWQS. However, the City does not support the revised modifications to the Fish Consumption Rate, Bioconcentration Factor and Inorganic Factor. The City continues to support the initial proposed rule, and will only support parameter modifications that are protective without being overly stringent. (Q)

Response to Comment #1

The Department's initial proposed ambient water quality (human health) criteria for inorganic arsenic (AWQC(IA)) proposed to change the acceptable cancer risk factor from 1 case per 1 million people (10E-6) to 1 case per 10,000 people (10E-4) as mandated by P.L. 2011, c. 194, but did not propose to revise any of the other parameters used in calculating AWQC(IA). In its comments, USEPA noted that well sampling programs conducted in Maine in 1999/2000 and 2006/2007 indicate that a significant portion of Maine residents are already exposed to elevated arsenic due to high concentrations of arsenic in private drinking water wells. Whereas prior arsenic toxicity information was based on risks of skin cancer, more recent studies indicate risks of internal cancers as well. Based on this and other issues noted above, USEPA determined that the Department's initial proposed revised human health criteria for inorganic arsenic were not sufficient to ensure that sensitive subpopulations would not be exposed to a cancer risk from inorganic arsenic exposure greater than one case per ten thousand people (10E-4), and thus would not be adequately protective of sensitive subpopulations. (Comment 1.A.1, Opposed) This prompted the Department to review methodologies used for establishing inorganic arsenic criteria in other states and USEPA regions and propose revised criteria that would be adequately protective of sensitive subpopulations. The result is a process in which several underlying parameters involved in the calculation of AWQC(IA) were evaluated and revised, resulting in a more transparent process that the Department believes is based on appropriate science and policy. As noted above, in addition to the change in cancer risk factor mandated by P.L. 2011, c. 194, revisions were made in the statewide fish consumption rate, bioconcentration factor, and percent inorganic factor used in calculating AWQC(IA). A discussion of the basis for each of the revised parameters is included in 1.E above. Interestingly, though not the intention of the review, in this reevaluation process the proposed criteria became less stringent. The previous AWQC(IA) were 0.012 ug/L for consumption of water and organisms (HHWO) and 0.028 ug/L for consumption of organisms (HHO) only. The initially proposed criteria were 1.2 ug/L (HHWO) and 2.8 (HHO). The revised criteria are 1.3 ug/L (HHWO) and 3.7 ug/L (HHO). The Department believes the revised proposed criteria are attainable and afford protection of Maine citizens and therefore stands by the revised criteria.

B. Revision to Fish Consumption Rate

2. Comment

One of the revised parameters upon which the revised AWQC(IA) is based is the fish consumption rate. Commenters expressed concern with the revision from 32.4 g/day to 138 g/day.

The City of Rockland Pollution Control Facility supported the initially proposed rule that leaves the current Fish Consumption Rate at 32.4 g/day. The revised criteria are based on an increased Fish Consumption Rate of 138 g/day. On reviewing EPA Exposure Factors Handbook, EPA/600/R-09/052F, September 2011, Table 10-5, it is apparent fish consumption rates are highly variable across the county. Given this significant variability, the Fish Consumption Rate within the Exposure Factors Handbook Table 10-5 Summary ranges for Statewide Surveys, which include data from Maine based consumption studies (i.e. 5-51 g/day) should be considered. (Q)

The MRWA states, Maine wants to follow Oregon with a much higher fish consumption rate value of 138 g/day, but only consider it for the arsenic calculation. We are strongly opposed to increasing fish consumption values as this will lead to the argument that why is Maine using increased fish consumption for arsenic but not for other pollutants such as copper, lead, zinc and organics? Opening the door to the argument that an increased fish consumption value should be used in all toxics since it is agreed that there is a population in Maine that depends on subsistence fishing would greatly burden small communities by requiring tertiary treatment to meet much tighter water quality criteria. (O)

The majority of highly exposed fish consuming subpopulations exist in limited areas of the State. The MRWA submits that Maine should consider site specific criteria for areas separately than the remainder of the State. The majority of the subpopulations which consume more fish are consuming more freshwater fish. Different areas in Maine have differing naturally occurring levels of arsenic in the water. Since there is significant variation throughout the state, criteria should be evaluated based on site specific criteria in order to be truly science based. The fish consumption rate should only be applicable to those regions that there is a subpopulation that exists based on subsistence fishing. (O)

The MRWA believes the State also should determine the fish consumption rate in those subpopulations in Maine and not base it on other states ethnic practices. If Maine proposes to follow Oregon in increasing the fish consumption rate value used in the toxics calculation and continue to remain so conservative with all the factors allowable, we submit that there should be variances allowed for naturally occurring background concentrations in the permitting process. (O)

Response to Comment #2

Maine is using a higher fish consumption rate for use in calculating AWQC(IA) to ensure protection of sensitive subpopulations, as is required by USEPA's AWQC Methodology. This action is not taken with an intent to follow any other state and it specifically utilizes Maine data. As noted above in the Response to Comments #1.B.5 and #1.B.6, Maine's previous statewide fish consumption rate of 32.4 grams/day represents the 97th percentile for Maine recreational anglers for all waters and the 94th percentile for Native American anglers in Maine. Using a cancer risk factor of 10E-6, Maine maintained that the 32.4 gram/day fish consumption rate is not only protective of the sensitive subpopulation of fish consuming recreational anglers, but is also protective of the higher-end sensitive subpopulation of native American recreational anglers based on the only empirical data of which Maine is aware (ChemRisk (1992), Ebert et al (1993)). The question remained as to whether this rate was adequately protective with the 10E-4 risk factor.

USEPA determined that the Department's initially proposed revised AWQC(IA), in which only a change in the cancer risk factor was proposed, were not sufficient to ensure that sensitive subpopulations would not be exposed to a cancer risk from arsenic exposure greater than one case per ten thousand people (10E-4), and thus would not be adequately protective of sensitive subpopulations. (Comment 1.A.1, Opposed).

To meet the responsibility in USEPA's AWQC Methodology of ensuring criteria are "*adequately protective of the most highly exposed subpopulation*" with a change in the Cancer Risk Level noted above, the Department is using the 138 gram/day (99th percentile) value for Native American anglers in Maine as a new state-wide fish consumption rate in calculation of inorganic arsenic AWQC. As this is local population-specific empirical data, it is a preferred value to the national default subsistence fishing consumption rate of 142.4 grams/day (also 99th percentile) according to EPA's AWQC Methodology (Sections 1.6, 2.6, 2.8.2). Further, as the ChemRisk (1992) and Ebert et al (1993) study is cited by EPA in the Exposure Factors Handbook in both Section 10.10.3. *Recommendations – Recreational Freshwater Anglers* and Section 10.10.4. *Recommendations – Native American Subsistence Populations*, Maine believes that the validity of the study and the protective nature of its revised fish consumption rate for sensitive subpopulations (138 grams/day) are demonstrated.

The revision to the statewide fish consumption rate used in calculating AWQC(IA) only applies to calculation of criteria for inorganic arsenic. All other criteria except for inorganic arsenic are still calculated based on a cancer risk factor of 10E-6 and thus do not require a change in the fish consumption rate in order to be protective of the most sensitive subpopulation.

As noted above (Comment #1.B.3: Opposed), in its initial proposed rule, the Department referenced additional protections provided in the existing rule (06-096 CMR 584.3.B(2)) through the ability for parties to request establishment of site specific human health criteria. As noted in the same section, USEPA determined that this opportunity alone did not adequately address its concerns with protection of sensitive subpopulations. It was determined that a new statewide fish consumption rate was required. However, the existing rule section cited is still available if it is determined that some areas require a greater rate in order to ensure adequate protections.

The Department notes that the commenter's suggestion to consider background concentrations is already provided for in Department rule 06-096 CMR 530, Surface Water Toxics Control Program, Section 4.C Background concentrations.

The Department believes the revised proposed statewide fish consumption rate is appropriate for inorganic arsenic and therefore stands by the revised proposed criteria.

C. Inorganic Factor

3. Comment

One of the revised parameters upon which the AWQC(IA) is based is an Inorganic Factor (IF). Commenters expressed concern with the revision to utilize a 30% IF, suggesting a lower IF instead.

The ALC restated previous comments that "*most arsenic in fish is in the form of organic compounds that are much less toxic than inorganic arsenic. On average in freshwater fish, less than 10% of the arsenic is inorganic, while in marine and estuarine fish, only 2% is inorganic (Schoof and Yager 2007). As noted by Schoof and Yager (2007), in freshwater finfish, the mean inorganic arsenic fraction was 7.2%, the 75th percentile was 10% and the 90th percentile was 16%. Maine DEP has selected a maximum value to represent the inorganic arsenic fraction, but fish consumers will be exposed to various kinds of fish from various sources over their lifetime, so use of a value close to a maximum will yield substantial overestimates of potential exposure to inorganic arsenic.*" (P)

The MRWA is supportive of the changes to the criteria that have made them less strict, but feels they are still overly conservative and would encourage using a lower inorganic fraction for the calculation of the criteria of 10% rather than 30% which is overly conservative. (O)

The City of Rockland Pollution Control Facility states, if the Inorganic Arsenic Factor is to be modified, a representative factor should be established. An inorganic factor of 10% would be more representative of actual freshwater fish concentrations and overly protective in the case of marine fish. (Q)

Response to Comment #3

As noted in Response to Comment #1.C.7 above, the current literature discusses a range of 10-30% inorganic arsenic in total arsenic. It is noted that there is variability even among USEPA Regions, with some using a 10% inorganic factor, while others use a 30% inorganic factor. Some species appear to consistently have low levels of inorganic arsenic. Aside from this, some figures at the lower end of the range in reviewed studies are actually based on average results, while the maximum amounts are observed to approach or exceed the upper end of the range depending on species, portions of the organisms analyzed, etc. As Maine typically seeks to be protective of human health and aquatic life at much higher than average levels (i.e. 95th percentile), the Department stands by its use of the more conservative 30% Inorganic Factor. However, the Department does not rule out reconsideration of any of the parameters utilized in calculating the AWQC(IA) as additional information becomes available and as appropriate.

D. Bioconcentration Factor

4. Comment

One of the revised parameters upon which the AWQC(IA) is based is the Bioconcentration Factor (BCF). Commenters expressed concern with the proposed revision from 44 L/kg to 26 L/kg, suggesting a lower BCF instead.

The ALC comments that the consumption-weighted BCF was intended for broad application to freshwater and estuarine environments, but that current consumption patterns suggest that the BCF should be even lower than proposed. (P).

The City of Rockland Pollution Control Facility comments that, based on available fish consumption data, 26 L/kg is overly stringent as well. (Q)

Response to Comment #4

As noted above in Section 1.E. Explanation of the Revised AWQC (IA), Bioconcentration Factor, the previous BCF of 44 L/kg for inorganic arsenic is based on a limited data set of studies. The revised BCF of 26 L/kg was calculated by USEPA in a recent analysis of three additional studies. USEPA recommended that the 26 L/kg BCF be utilized statewide in Maine. The Department believes the revised proposed statewide BCF is appropriate for inorganic arsenic and therefore stands by the 2012 revised criteria.

E. Summary Statements

5. Comment

The ALC states, the revised inorganic arsenic criteria are protective of human health and are more stringent than criteria approved by most other states. The criteria are also consistent with USEPA methodologies and guidelines for developing human health criteria and, as long as there are no increases above natural levels, will not lead to increased exposure to arsenic for Maine residents. Even high fish consumers will be protected because both the assumed fish consumption rate has been increased and because the arsenic concentrations in fish will not change. Furthermore, less than 10% of arsenic in fish is inorganic arsenic, providing a greater than three-fold protective factor for the revised AWQC. Based on these findings, the ALC urges the Maine DEP to adopt the inorganic arsenic AWQC as revised. (P)

Response to Comment #5

The Department offers no response.

ATTACHMENT B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

May 16, 2013

Patricia W. Aho, Commissioner
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: Review and Action on Water Quality Standards Revisions

Dear Commissioner Aho:

By letter of January 14, 2013, the Maine Department of Environmental Protection ("DEP") submitted revisions of the State's surface water quality standards to Region 1 of the United States Environmental Protection Agency ("EPA" or "Region") for review. The revisions were adopted by the DEP on July 13, 2012. By letter to EPA dated January 9, 2013, Maine's Assistant Attorney General in the Natural Resources Division certified the revisions as having been duly adopted pursuant to state law. The Region has completed its review of the submitted revisions to the arsenic criteria as further described below.

Pursuant to Section 303(c)(2) of the Clean Water Act and 40 C.F.R. Part 131, I hereby approve the following water quality standards revisions to 38 MRSA §420, sub-§2 as set forth in P.L. 2011, Ch. 194 (LD 515) "An Act To Review State Water Quality Standards" and CMR 584, Surface Water Quality Criteria for Toxic Pollutants.

1. Revision of the cancer risk level used to calculate the human health criteria for arsenic from one in 1,000,000 to one in 10,000 and
2. Revision of the arsenic criteria to protect human health from 0.012 to 1.3 µg/L for the consumption of water and organisms and from 0.028 to 3.7 µg/L for the consumption of organisms only.

We are still reviewing revisions to the acrolein and phenol criteria and are not taking action on those revisions at this time.

EPA acknowledges your request to approve the revisions for all waters, including waters that are within Indian territories. Today's approval does not extend to waters that are within Indian territories. EPA intends to publish a notice explicitly seeking public input on the applicability of the revised arsenic criterion in question to waters within Indian territories before completing its review. Therefore, EPA is taking no action to approve or disapprove the State's revisions with respect to those waters at this time. In the meantime, EPA will retain responsibility under Sections 303(c) and 303(d) of the Clean Water Act for those waters.

Discussion

In implementing LD 515, DEP reviewed the available scientific literature on the factors that are used to derive water quality criteria to protect human health uses including fishing, recreation in and on the water, and, where applicable, drinking water. DEP also reviewed data specific to waters in Maine and used the information to derive arsenic criteria for Maine's waters.

Arsenic is a known carcinogen that may cause cancer in skin or internal organs such as the liver, lungs and bladder.[1] In its 304(a) criteria recommendations, EPA states that arsenic criteria should be applied as inorganic arsenic.[2] As is the case for all pollutants, EPA's 2000 Human Health Methodology encourages states to use local and regional data when making risk management decisions inherent in developing criteria, including decisions inherent in selecting the appropriate fish consumption rate, target risk level and bioaccumulation factor.[3]

Maine's revised numeric criteria for arsenic were derived using the same general methodology and equations used to calculate EPA's current 304(a) recommended criteria for carcinogens. The revised criteria and the input variables used to calculate the criteria are summarized in Table 1 below. The paragraphs that follow explain those components of the calculation that have been revised to form the basis of Maine's new arsenic criteria.

Cancer Risk Factor (RF): The State of Maine enacted LD 515 in 2011 directing DEP to revise Maine's human health water quality criteria for arsenic based on a cancer risk factor of 1 in 10,000 rather than the previous RF of 1 in 1,000,000. EPA's recommended methodology for the derivation of water quality criteria states that 1 in 1,000,000 or 1 in 100,000 may be acceptable cancer risk factors for the general population and that highly exposed populations should not exceed a 1 in 10,000 risk level.[4]

Fish Consumption Rate (FCR): Maine's previous 32.4 g/day FCR represents the 94th percentile for Native American anglers in Maine and the 95th percentile for the total angler population in Maine, based on data from a 1990 survey of licensed Maine anglers[5]. In deriving the new arsenic criteria, DEP used 138 g/day, which is the 99th percentile of this survey, to ensure that the criteria are protective of subsistence fishers, a highly exposed population. This approach is consistent with EPA recommendations for

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[1] Agency for Toxic Substances and Disease Registry (ATSDR). *Toxicological Profile for Arsenic*. Atlanta, Georgia, August 2007. Available at: http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=3

[2] EPA, *National Recommended Water Quality Criteria*; human health criteria for arsenic published 1992, available at: http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm

[3] 84 EPA. 2000. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. EPA-822-B-00-004, page 2-6. Available at: http://www.epa.gov/waterscience/criteria/humanhealth/method/complete.pdf

[4] EPA. 2000. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. EPA-822-B-00-004. page 2-6. Available at: http://www.epa.gov/waterscience/criteria/humanhealth/method/complete.pdf

[5] Ebert, E.S., R.E. Keenan, J.W. Knight, and N.W. Harrington, *Consumption of Freshwater Fish by Maine Anglers*, proceedings of the 1992 TAPPI Environmental Conference.

Table 1 – Comparison of Maine's Previous and Revised Arsenic Criteria

Parameter	2005 criteria	2012 criteria
Cancer Risk Factor (RF)	1×10^{-6}	1×10^{-4}
Body Weight (BW)	70 kg	70 kg
Cancer Potency Factor (q1*)	1.75 mg/kg/day	1.75 mg/kg/day
Water Consumption (DW)	2 L/day	2 L/day
Bioconcentration Factor (BCF)	44 L/kg	26 L/kg
Fish Consumption Rate (FCR)	32.4 g/day	138 g/day
Inorganic Factor (IF)	none[6]	30%
Criteria to protect human health for consuming fish and drinking water (water + organism) $= 1{,}000 \times \frac{RF \times BW}{q1^* \times [DW + (BCF \times FCR \times IF)]}$	0.012 µg/L	1.3 µg/L
Criteria to protect human health for consuming fish only $= 1{,}000 \times \frac{RF \times BW}{q1^* \times BCF \times FCR \times IF}$	0.028 µg/L	3.7 µg/L

estimating fish consumption rates for subsistence fishers and is appropriate to ensure that highly exposed subpopulations are not exposed to a risk level greater than 1 in 10,000.

Inorganic Factor (IF): Arsenic is present in the environment and in fish tissue in both organic and inorganic forms. Inorganic arsenic is the form that is most toxic to humans and used to develop toxicity data for cancer and other end points. The IF is the ratio of inorganic arsenic to total arsenic in fish tissue. DEP conducted its own literature search which found a range of observed IF values from 10 to 30%. According to DEP's review, the lower end of this range is based on average results, whereas maximum amounts are observed to approach or exceed the upper end of the range depending on species and other factors. DEP chose the more protective end of this range.[7]

Bioconcentration Factor (BCF): Bioconcentration refers to the uptake and retention of a chemical by an aquatic organism from water. The BCF is the ratio of the concentration of a substance in the tissue of an aquatic organism to its concentration in the ambient water in situations where the organism is exposed through the water only and the ratio does not

[6] The 2005 criteria did not include adjustment to the criteria based on an assumption of a ratio of inorganic to total arsenic. Therefore, IF was not included in the 2005 calculation. Instead, DEP assumed a ratio of 50% inorganic arsenic to total arsenic in developing water quality based effluent limits for dischargers subject to licensing under Maine's National Pollution Discharge Elimination System. EPA understands that with the adoption of the new arsenic criteria, DEP will no longer make those adjustments.

[7] *See* 1/27/2011 email from Robert D. Stratton, DEP, to Ellen Weitzler and Stephen Silva, EPA.

change substantially over time. Maine has updated the BCF used for the arsenic criteria based on a 2011 BCF derivation for arsenic conducted by EPA in support of an arsenic criteria revision in Oregon.[8] The 2011 derivation used a larger set of studies than were available in 1980 when the 44kg/L BCF (used in the 2005 Maine arsenic criteria) was developed.

EPA approves of the WQS revision to the arsenic criteria on the basis of the demonstrated use of available sound science, including state specific data, to derive the new criteria.

We look forward to continued cooperation with Maine in the development, review and approval of water quality standards pursuant to our responsibilities under the Clean Water Act. Please contact Ellen Weitzler (617-918-1582) if you have any questions.

Sincerely,

Kenneth Moraff, Acting Director
Office of Ecosystem Protection

cc: Brian Kavanah, MEDEP
Tracy Bone, EPA SSB
Jennie Bridge, EPA

[8] EPA, Region 10, *Technical Support Document for Action on the State of Oregon's New and Revised Human Health Water Quality Criteria for Toxics and Associated Implementation Provisions Submitted July 12 and 21, 2011*, October 17, 2011

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

Other Considerations in Appealing a Decision to the Board

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

What to Expect Once You File a Timely Appeal with the Board

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.