

PIONEER MUNICIPAL HIGH INCOME TRUST
Form NSAR-B
June 29, 2010

PAGE 1
000 B000000 04/30/2010
000 C000000 0001223026
000 D000000 N
000 E000000 NF
000 F000000 Y
000 G000000 N
000 H000000 N
000 I000000 6.1
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001 B000000 811-21321
001 C000000 6177427825
002 A000000 60 STATE STREET
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007 C011000 10
008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
008 B000001 A
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010 A000002 PRINCETON ADMINISTRATORS, LLC
010 C010002 PRINCETON
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010 C040002 9095
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-12345678
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PAGE 2
011 C020001 MA
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011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD
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011 C030002 06901
011 A000003 RBC CAPITAL MARKETS CORP.
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011 A000004 ADVEST, INC.
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011 A000005 JANNEY MONTGOMERY SCOTT, LLC
011 B000005 8-462
011 C010005 PHILADELPHIA
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011 C040005 1675
011 A000006 MCDONALD INVESTMENTS, INC.
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011 C010006 CLEVELAND
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011 A000007 STIFEL, NICOLAUS & CO., INC.
011 B000007 8-001447
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012 A000001 PIONEER INVEST. MGT. SHAREHOLDER SVCS., INC.
012 B000001 85-01359
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012 A000002 AMERICAN STOCK TRANSFER & TRUST CO. (COMMON)
012 B000002 85-00000
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012 A000003 DEUTSCHE BANK TRUST COMPANY AMERICAS (PREF.)
012 B000003 85-00000
012 C010003 NEW YORK
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013 A000001 ERNST & YOUNG LLP
PAGE 3
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PAGE 7

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PAGE 8

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087	C010000	PREFERRED STOCK - SERIES B
087	C020000	723763306
088	A000000	N

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088 B000000 N

088 C000000 N

088 D000000 Y

SIGNATURE MARY KELLERMANN

TITLE ACCOUNTING MANAGER