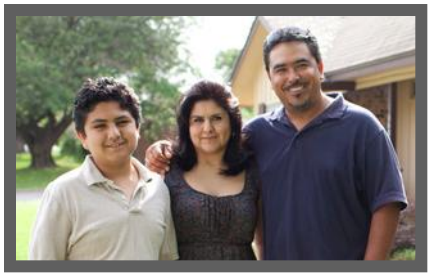
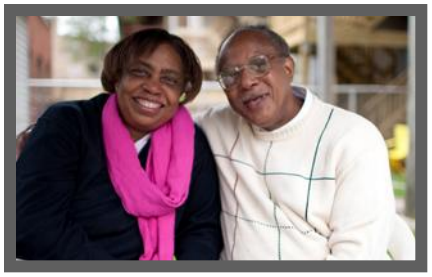
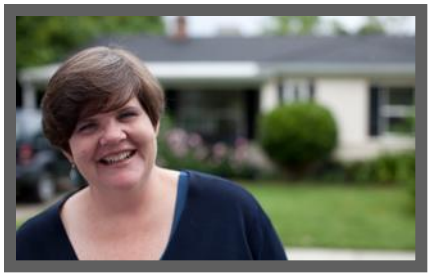
Help for America's Homeowners

MAKING HOME AFFORDABLE®



Making Home Affordable
Base Net Present Value (NPV) Model (v 5.0)

Training Module for Servicers

Agenda

1	HAMP Eligibility Criteria
2	Base NPV Model Overview
3	Standard and Alternative Modification Waterfalls
4	NPV Model Inputs
5	Performing the NPV Test
6	NPV Model Outputs
7	Common Error Codes
8	Interpreting NPV Test Results
9	Resources

HAMP Eligibility Criteria

Criteria	Guideline	HAMP Tier 1	HAMP Tier 2
Servicer, Investor, Insurer	Guidance applies to MHA-participating servicers of mortgages not owned, guaranteed, or insured by Fannie Mae, Freddie Mac, FHA, VA, or USDA.	✓	✓
Origination	The mortgage loan is a first lien originated on or before January 1, 2009.	✓	✓
Unpaid Principal Balance Limits	The unpaid principal balance, prior to capitalization, must be less than or equal to: ■ $729,750 for a one-unit property ■ $934,200 for a two-unit property ■ $1,129,250 for a three-unit property ■ $1,403,400 for a four-unit property	✓	✓
Property Condition	The property securing the mortgage loan has not been condemned.	✓	✓
Financial Hardship	The borrower must be able to document a financial hardship.	✓	✓

HAMP Eligibility Criteria

Criteria	Guideline	HAMP Tier 1	HAMP Tier 2
"Natural" Persons	The borrower is a "natural" person. Mortgage loans made to business entities are not eligible for assistance under HAMP.	✓	✓
Occupancy	The mortgage loan is secured by a single family property that is occupied by the borrower as his or her principal residence.	✓	✓
Occupancy	The mortgage loan is secured by a single-family property that is used by the borrower for rental purposes only and not occupied by the borrower, whether as a principal residence, second home, or vacation home. Borrower may not own more than five single-family properties in addition to the principal residence.	---	✓

HAMP Eligibility Criteria

Criteria	Guideline	HAMP Tier 1	HAMP Tier 2
Delinquency	The mortgage loan securing the principal residence is not delinquent, but default is reasonably foreseeable.	✓	✓
Delinquency	The mortgage loan securing the principal residence is delinquent.	✓	✓
Delinquency	The mortgage loan securing the rental property is delinquent.	---	✓

HAMP Eligibility Criteria

Criteria	Guideline	HAMP Tier 1*	HAMP Tier 2
Minimum Payment Ratio	The borrower's monthly mortgage payment, PITIA, (including principal, interest, taxes, insurance, and when applicable, association fees, existing escrow shortages) is greater than 31 % of the borrower's verified monthly gross income.	✓	✓
Minimum Payment Ratio	The borrower's monthly mortgage payment, PITIA is less than or equal to 31% of the borrower's verified monthly gross income.	---	✓

*Only single family properties occupied by borrowers as **principal residences** qualify for HAMP Tier 1.

HAMP Eligibility Criteria

Criteria	Guideline	HAMP Tier 1*	HAMP Tier 2
Previous HAMP Trial or Modification	The mortgage loan has never received a Trial Period Plan, or TPP, or been modified under HAMP.	✓	✓
Previous HAMP Tier 1 Trial	The mortgage loan received a HAMP Tier 1 TPP on which the borrower defaulted. (Tier 2 TPP must be at least 10% less than failed Tier 1 TPP.)	---	✓
Previous HAMP Tier 1 Modification	The mortgage loan received a HAMP Tier 1 permanent modification on which the borrower defaulted. (Additional eligibility criteria include: demonstrable change in circumstances or 12 or more months since effective date of HAMP Tier 1 modification.)	---	✓
Previous HAMP Tier 2 Trial or Modification	The mortgage loan received a HAMP Tier 2 TPP or permanent modification on which the borrower defaulted.	---	---

*Only single family properties occupied by borrowers as **principal residences** qualify for HAMP Tier 1.

HAMP Eligibility Criteria

Modification Limitations

- An individual, as a borrower or co-borrower, may receive only one modification under HAMP Tier 1.
- An individual, as a borrower or co-borrower, may receive up to a total of three permanent modifications, of three different mortgages under HAMP Tier 2.

Base NPV Model Overview

Three Key Purposes

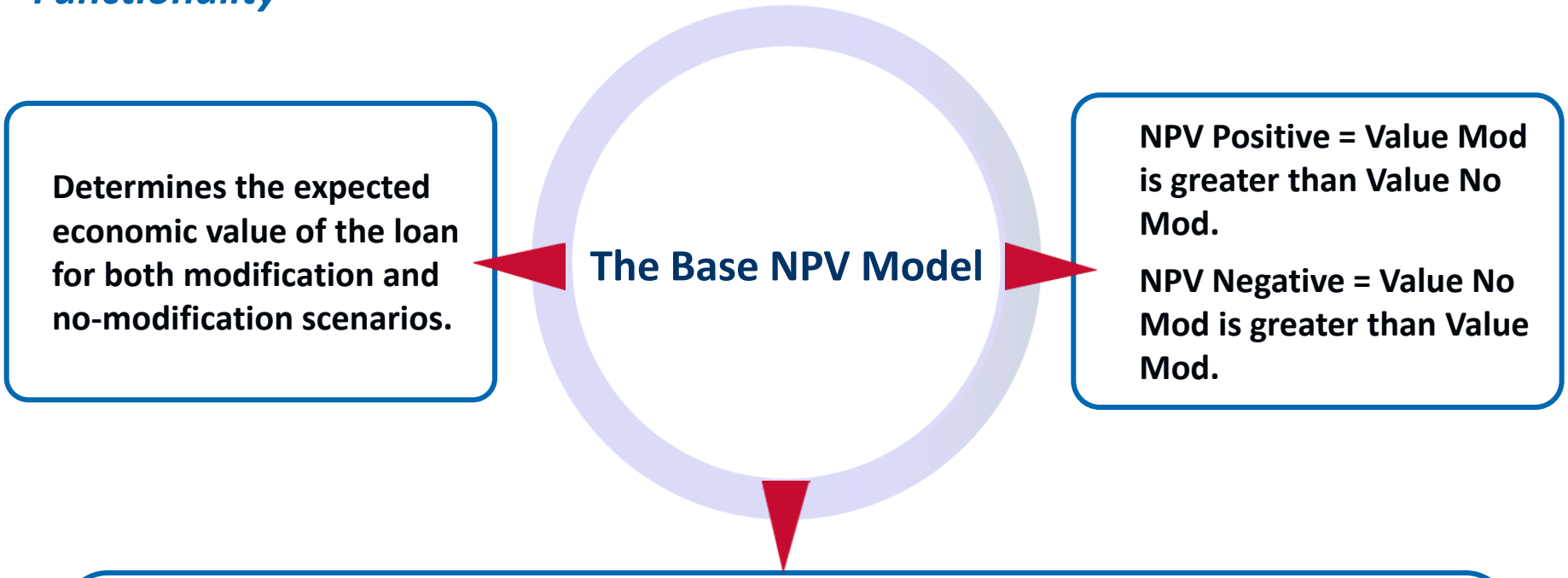
1. **Providing consistency in NPV calculation for HAMP.**

2. **Helping the industry move toward a more standard process for evaluating the NPV of mortgages for the purpose of making modifications.**

3. **Specifying a precise method for determining NPV with the goal of providing a base that any servicer can use or customize into a proprietary NPV model that satisfies all of the MHA program's methodological requirements.**

Base NPV Model Overview

Functionality

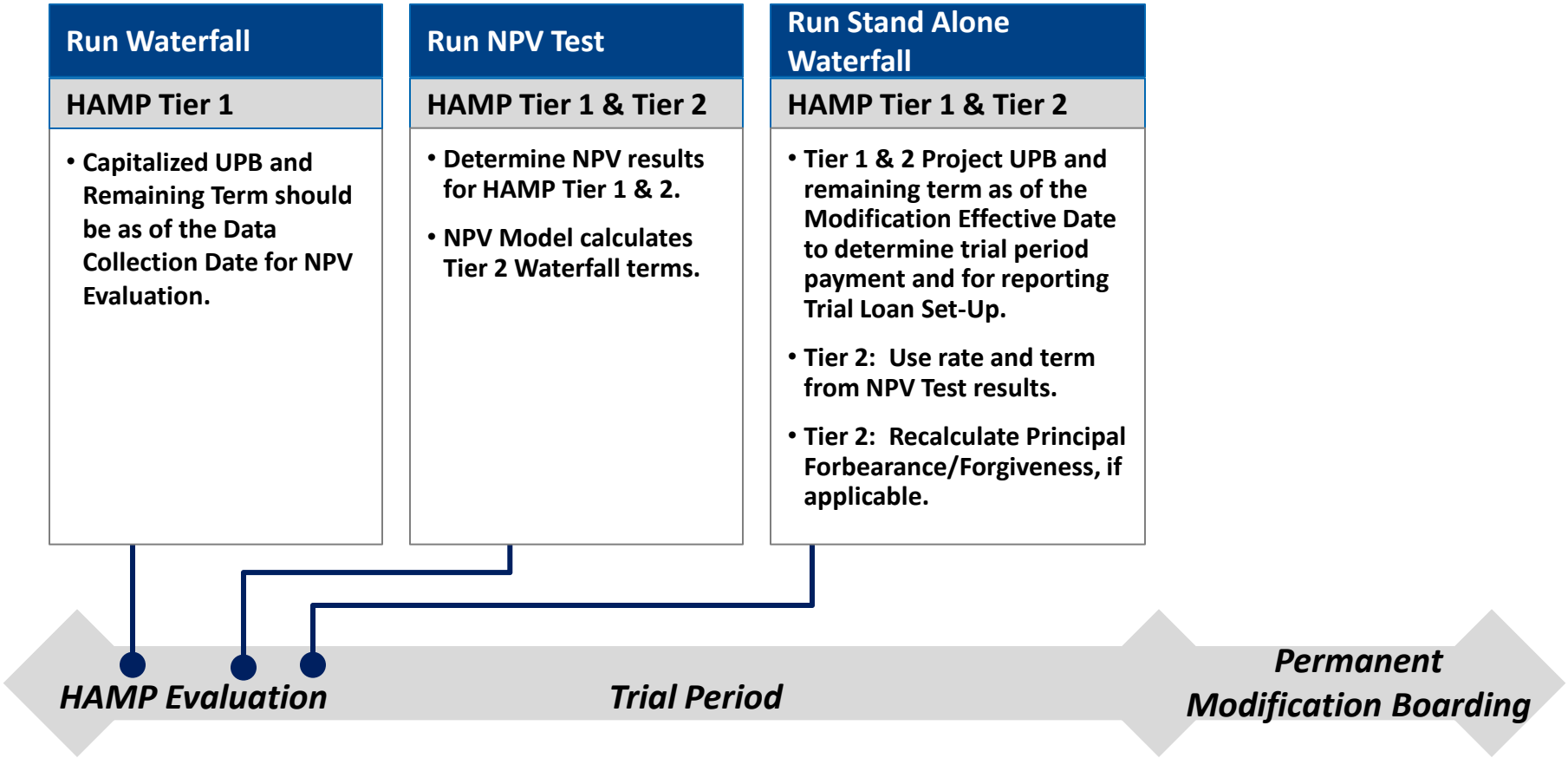


The Base NPV Model 5.0 automatically evaluates borrowers for both HAMP Tier 1 and Tier 2, providing results for both.

- **For HAMP Tier 1**, the model calculates the NPV results using the servicer-provided terms of the Standard and Alternative Modification Waterfalls.
- **For HAMP Tier 2**, the model generates the Standard and Alternative Modification Waterfall terms AND calculates the NPV results.

Base NPV Model Overview

Timeline



NPV evaluation is not permitted after the borrower is approved for trial modification

Standard and Alternative Modification Waterfalls

HAMP Tier 1

Standard Modification Waterfall – HAMP Tier 1

Goal is to reach target monthly mortgage payment ratio of 31%!

Step 1 Capitalize	Step 2 Reduce the Rate	Step 3 Extend the Term	Step 4 Principal Forbearance
Capitalize accrued interest, out-of-pocket servicing expenses.	Reduce the borrower's current rate to as low as two percent.	Extend the term without exceeding 480 months.	If necessary, forbear principal.

Alternative Modification Waterfall – HAMP Tier 1

Includes Principal Reduction Alternative (PRA) for loans with a MTMLTV ratio of 115% or higher!

Step 1 Capitalize	Step 2 PRA	Step 3 Reduce the Rate	Step 4 Extend the Term	Step 5 Principal Forbearance

Standard and Alternative Modification Waterfalls

HAMP Tier 2

Capitalization	Outstanding UPB + Accrued Interest + Out-of-pocket Servicing Expenses.
Interest Rate Adjustment	PMMS Rate + Risk Adjustment (expressed in basis points).
Term Extension	480 months and re-amortize from the Data Collection Date.
Principal Forbearance/ Forgiveness	If pre-modification MTMLTV ratio is greater than 115%. Forbear or forgive an amount equal to the lesser of: • A post-modification MTMLTV ratio of 115% • 30% of the post-modification UPB.
Affordability Requirements	1) Modified principal and interest (P&I) payment must be reduced by at least the pre-modification P&I payment. 2) Post-modification DTI falls in an Acceptable DTI Range (25% – 42%).
Alternative Modification Waterfall	Principal Forbearance is replaced with PRA.

Steps performed by NPV Model

Calculated by NPV Model

NPV Model Inputs

Required	Conditional	Optional
Investor Code	GSE Loan Number	Amortization Term at Origination
Servicer Loan Number	Next ARM Reset Rate	Interest Rate at Origination
HAMP Servicer Number	ARM Reset Date	LTV at Origination (1st lien only)
Data Collection Date	Current Co-borrower Credit Score	MTMLTV
Property – Number of Units	Modification Fees	Advances/Escrow
First Payment Date at Origination	PRA – Unpaid Principal Balance After Modification	Borrower's Total Monthly Obligations
Current Borrower Credit Score	PRA - Interest Rate After Modification	
Product before Modification	PRA – Amortization Term After Modification	
Remaining Term (# of Payment Months Remaining)	PRA – Principal and Interest Payment After Modification	
Unpaid Principal Balance Before Modification	PRA – Principal Forbearance Amount	
Interest Rate Before Modification	PRA – Principal Write-Down (Forgiveness)	
Principal and Interest Payment Before Modification	Maximum Months Past Due in past 12 Months	

NPV Model Inputs

HAMP Tier 1 Specific

Required Fields for HAMP Tier 1 Evaluation (Standard Modification Waterfall)
Unpaid Principal Balance After Modification (Net of Forbearance and Principal Reduction)
Interest Rate After Modification
Amortization Term After Modification
P & I Payment after Modification
Principal Forbearance Amount
Principal Forgiveness Amount
Required Field for HAMP Tier 1 Evaluation (Alternative Modification Waterfall) (Post-arrearage MTMLTV > 115%)
PRA Waterfall – UPB After Modification (Net Forbearance & PRA Principal Reduction)
PRA Waterfall – Interest Rate After Modification
PRA Waterfall – Amortization Term after Modification
PRA Waterfall – P&I Payment after Modification
PRA Waterfall – Principal Forbearance Amount
PRA Waterfall – Principal Forgiveness Amount

NPV Model Inputs

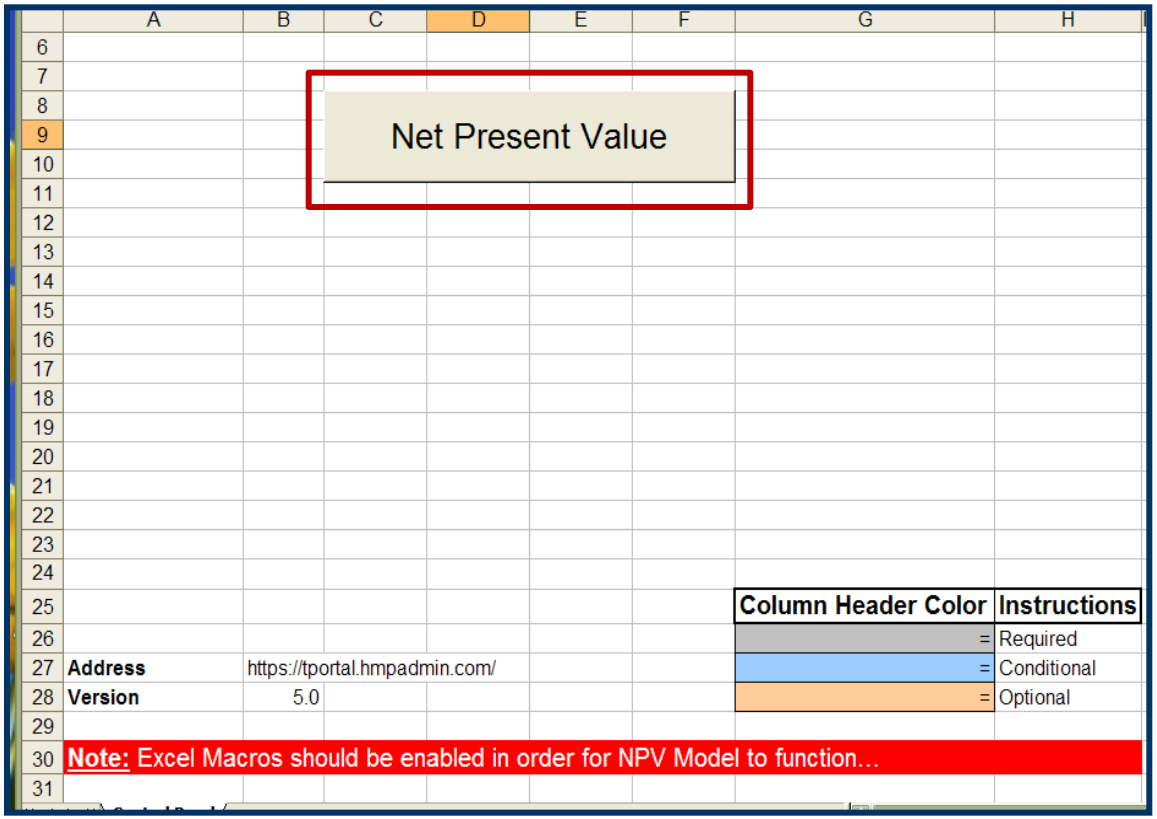
New Input Fields

Required	Conditional	Optional
Occupancy Eligibility	Primary Residence Total Housing Expense	Tier 2 Non-PRA Forgiveness Amount
Capitalized UPB Amount	Property Monthly Gross Rental Income	Tier 2 Mod Interest Rate Override
Tier 2 Investor Override Flag		Tier 2 Mod Term Override
		Tier 2 Mod Forbearance Amount Override
		Tier 2 PRA Principal Forgiveness Override

Performing the NPV Test

Base NPV Model Spreadsheet

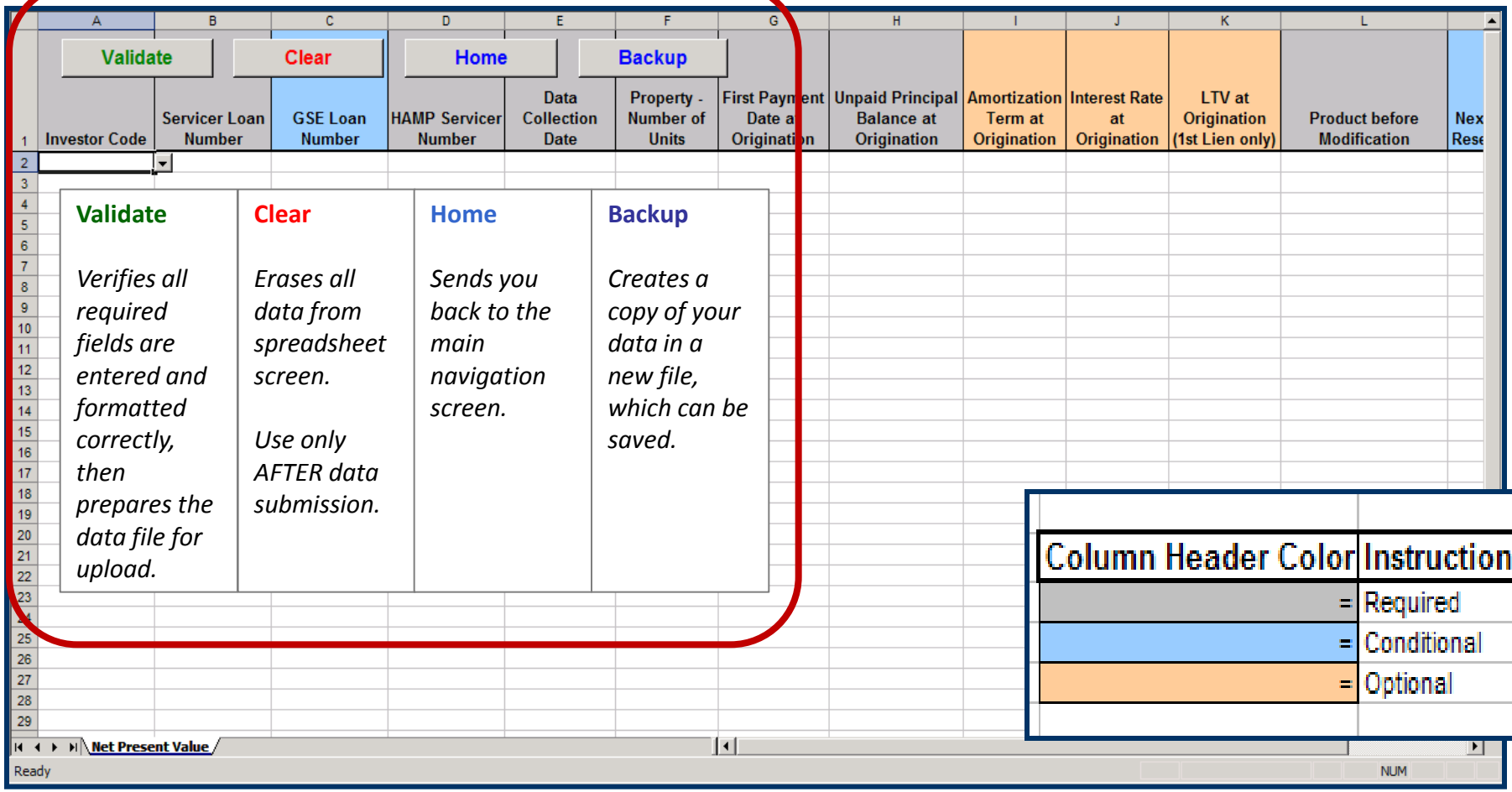
The Net Present Value button allows you to navigate through the spreadsheet.



Remember: Macros must be enabled in order for the Base NPV Model Spreadsheet to function!

Performing the NPV Test

Entering data into the Base NPV Model Spreadsheet Tool



Performing the NPV Test

Multiple Loans

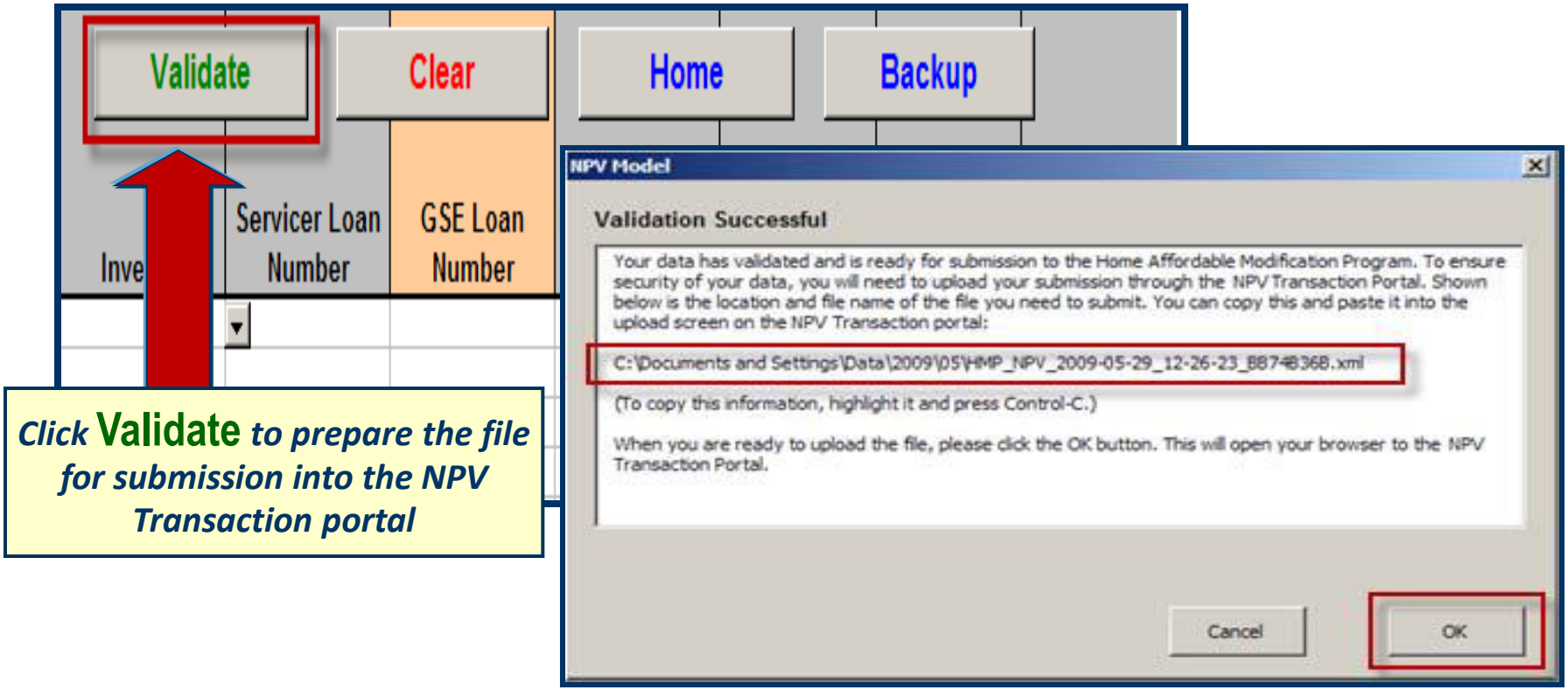
	A	B	C	D	E	F	G	H	I	J	K	L
	Validate		Clear		Home		Backup					
1	Investor Code	Servicer Loan Number	GSE Loan Number	HAMP Servicer Number	Data Collection Date	Property - Number of Units	First Payment Date at Origination	Unpaid Principal Balance at Origination	Amortization Term at Origination	Interest Rate at Origination	LTV at Origination (1st Lien only)	Product before Modification
2	1	1000000001	200000001	123456789	07/01/2009	1	01/01/2005	$120,000.00	360	5.12500%	75.00000%	2
3	2	1000000002	200000002	123456789	07/01/2009	1	02/12/2003	$95,000.00	180	6.12500%	80.00000%	2
4	3	1000000003	200000003	123456789	07/01/2009	1	06/05/2001	$250,000.00	360	7.12500%	95.00000%	2
5	3	1000000004	200000004	123456789	07/01/2009	1	05/01/2004	$400,000.00	360	9.12500%	75.00000%	2
6	1	1000000005	200000005	123456789	07/01/2009	2	09/01/2007	$350,000.00	360	4.00000%	60.00000%	1
7	3	1000000007	200000007	123456789	07/01/2009	2	01/10/2007	$175,000.00	360	7.00000%	80.00000%	1
8	3	1000000008	200000008	123456789	07/01/2009	2	01/20/2006	$295,000.00	360	9.00000%	70.00000%	1
9	1	1000000009	200000009	123456789	07/01/2009	2	05/01/2006	$320,000.0				
10					07/01/2009	3	05/01/2007	$600,000.0				
11					07/01/2009	1	01/01/2005	$140,000.0				

Use "Paste Special" function to avoid issues with incompatible formatting

Column Header Color	Instructions
=	Required
=	Conditional
=	Optional

Performing the NPV Test

Validating the Spreadsheet

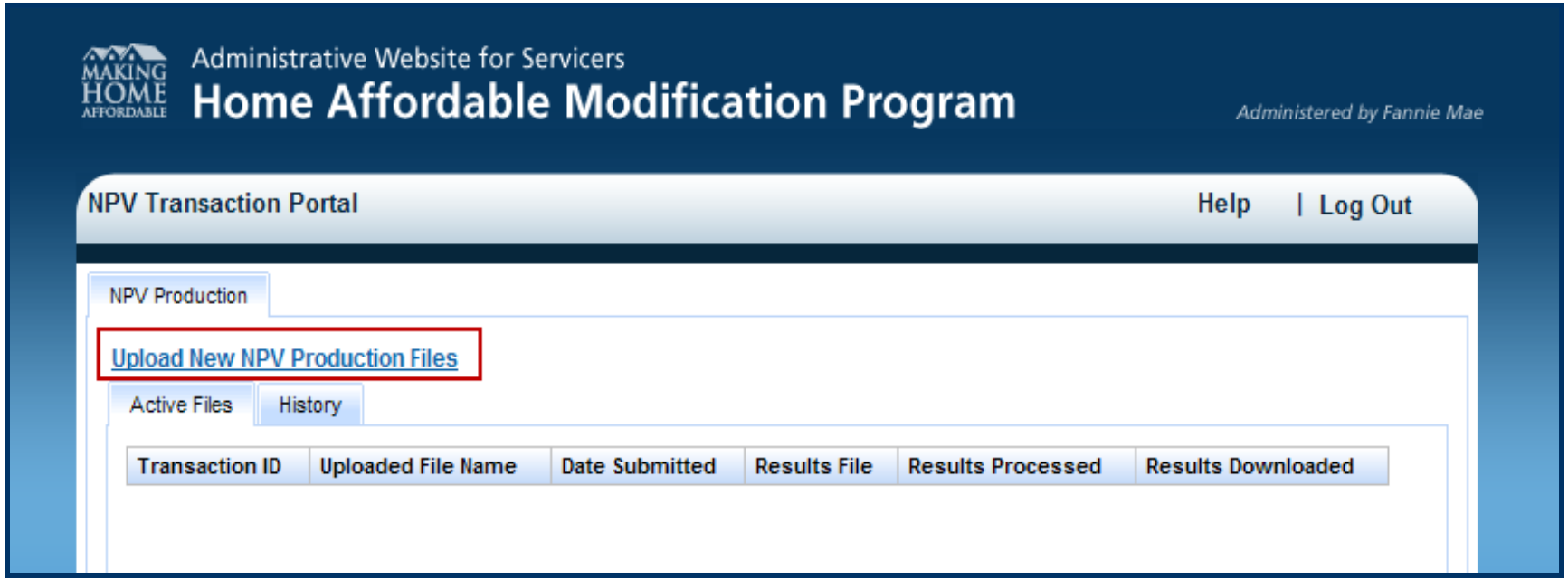


Click **Validate** *to prepare the file for submission into the NPV Transaction portal*

If any required fields are incomplete, the Base NPV Model tool generates an error message and highlights the incomplete row. If you receive a validation error message, complete the required data field(s) and click VALIDATE again.

Performing the NPV Test

Submitting the Validated File to the NPV Transaction Portal



To submit your file for processing, select the "NPV Production" tab and click the "Upload New NPV Production Files" link.

Performing the NPV Test

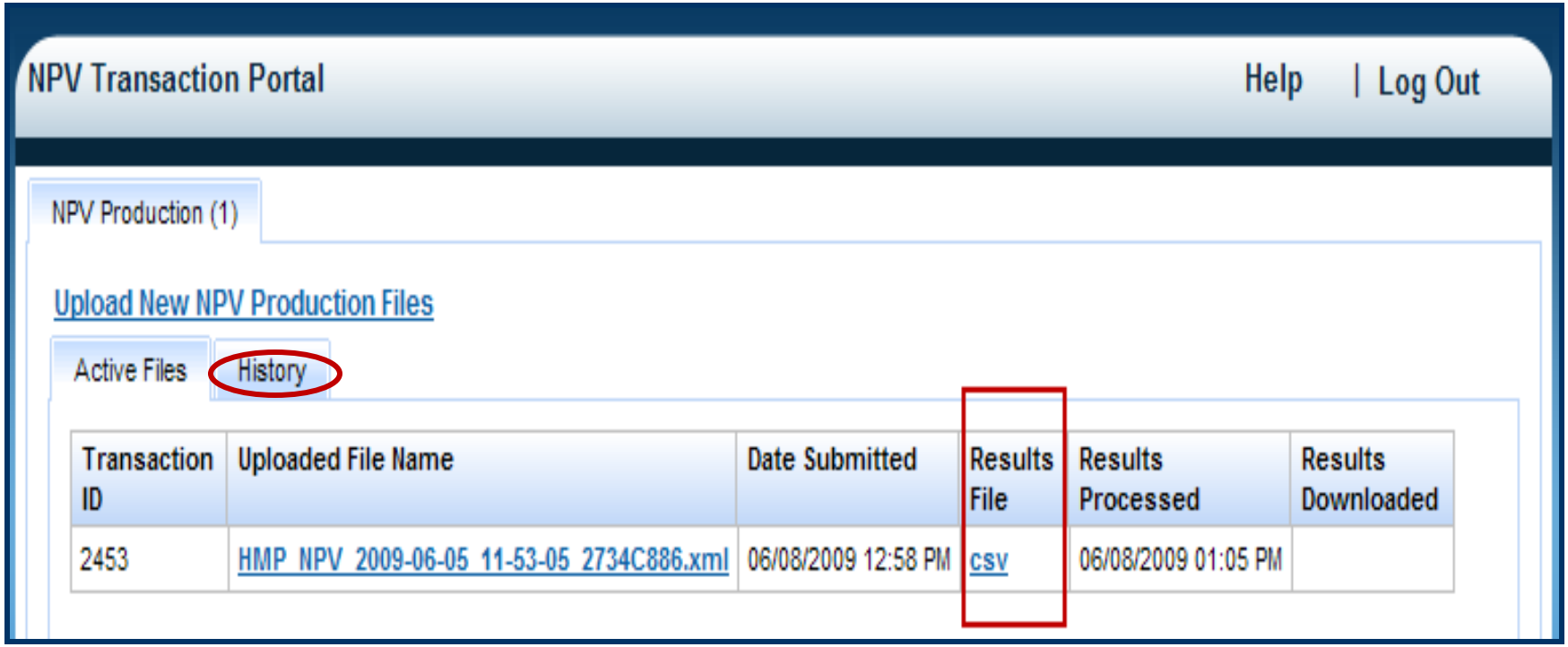
Saving a Back-up Copy

	A	B	C	D	E	F	G	H	I	J	K	L
	Validate		Clear	Home		Backup						
1	Investor Code	Servicer Loan Number	GSE Loan Number	HAMP Servicer Number	Data Collection Date	Property - Number of Units	First Payment Date at Origination	Unpaid Principal Balance at Origination	Amortization Term at Origination	Interest Rate at Origination	LTV at Origination (1st Lien only)	Product before Modification
2	1	1000000001	200000001	123456789	07/01/2009	1	01/01/2005	$120,000.00	360	5.12500%	75.00000%	2
3	2	1000000002	200000002	123456789	07/01/2009	1	02/12/2003	$95,000.00	180	6.12500%	80.00000%	2
4	3	1000000003	200000003	123456789	07/01/2009	1	06/05/2001	$250,000.00	360	7.12500%	95.00000%	2
5	3	1000000004	200000004	123456789	07/01/2009	1	05/01/2004	$400,000.00	360	9.12500%	75.00000%	2
6	1	1000000005	200000005	123456789	07/01/2009	2	09/01/2007	$350,000.00	360	4.00000%	60.00000%	1
7	3	1000000007	200000007	123456789	07/01/2009	2	01/10/2007	$175,000.00	360	7.00000%	80.00000%	1
8	3	1000000008	200000008	123456789	07/01/2009	2	01/20/2006	$295,000.00	360	9.00000%	79.00000%	1
9	1	1000000009	200000009	123456789	07/01/2009	2	05/01/2006	$320,000.00	360	8.00000%	78.00000%	1
10	3	1000000010	200000010	123456789	07/01/2009	3	05/01/2007	$600,000.00	360	7.87500%	70.00000%	1
11	1	1000000011	200000011	123456789	07/01/2009	1	01/01/2005	$140,000.00	360	5.00000%	80.00000%	2

Before clearing the data from the spreadsheet tool, be sure to save a backup copy of your data.

Performing the NPV Test

Retrieving the Results



For access to results, log in to the NPV Transaction Portal at https://tportal.hmpadmin.com.

NPV Model Outputs

Basic Informational Fields

HAMP Servicer ID	Information provided by servicer on input file
Servicer Loan Number	Information provided by servicer on input file
Waterfall Test	Indicator on whether the modification submitted appears to follow HAMP guidelines
DeMinimis Test	Indicator on whether the monthly payment was reduced by at least 6%

Sample Output

	A	B	C	D	E
1	HAMP Servicer ID	Servicer Loan Number	Waterfall Test	De minimis Test	Forbearance Flag
2	123456789	1000000006	Y	Y	-
3	123456789	1000000007	Y	Y	-
4					
5					
6					
7					

NPV Model Outputs

HAMP Tier 1

Outputs

- Value No Mod
- Value Mod
- NPV Test
- NPV Run Successful
- Run Date
- Code Version
- Freddie Primary Mortgage Market Survey (PMMS) Rate

Note

If there is an error then an error code of either N:a or N:1 will be displayed.

Sample Output

	H	I	J	K	L	M	N
	Value No Mod	Value Mod	NPV Test	NPV Run Successful?	Run Date	Code Version	Freddie PMMS Rate
	24174.22	33234.24	Positive	Y	12/12/2011	Base_NPV_V4.03	0.0455
	166214.65	171034.91	Positive	Y	12/12/2011	Base_NPV_V4.03	0.0455

NPV Model Outputs

HAMP Tier 1 PRA

PRA Waterfall Test	Waterfall flag to indicate if the servicer-provided waterfall terms under PRA are within range as calculated by the Base NPV Model.
PRA-NPV Value No Mod	The net present value of not modifying the loan using the Alternative Modification Waterfall.
PRA-NPV Value Mod	The net present value of modifying the loan using the Alternative Modification Waterfall.
PRA-NPV Result	Result of the NPV test under the Alternative Modification Waterfall (Positive/Negative)

Sample Output

	P	Q	R	S
	PRA - Waterfall Test	PRA - Value No Mod	PRA - Value Mod	PRA - NPV Test
	Y	24174.22	46006.27	Positive
	Y	166214.65	172746.98	Positive

NPV Model Outputs

HAMP Tier 2 Modification Terms

Tier 2 Principal Forbearance Amount	The principal forbearance amount under the HAMP Tier 2 Standard Modification Waterfall.
Tier 2 Non-PRA Principal Forgiveness Amount	The Non-PRA principal forgiveness amount under HAMP Tier 2.
Tier 2 Mod Rate	The interest rate after modification.
Tier 2 Mod Term	The term after modification (480 months).
Tier 2 Mod Payment	The modified principal and interest payment.
Tier 2 Mod UPB	The unpaid principal balance that is net of any forgiveness or forbearance under the HAMP Tier 2 Standard Modification Waterfall.

TIER2 Forbearance Amount	TIER2 Non-PRA Forgiveness Amount	TIER2 Mod Rate	TIER2 Mod Term	TIER2 Mod Payment	TIER2 Mod UPB
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
15112.88	0	0.045	480	775.44	172488.49

NPV Model Outputs

HAMP Tier 2 Modification Results

Tier 2 Value No Mod	NPV value of not modifying the loan.
Tier 2 Value Mod	NPV value of modifying the loan.
Tier 2 – NPV Test	1. Positive: Value for the modification is greater than the value without a modification. 2. Negative: Value for the modification is not greater than the value with a modification. 3. Ineligible – DTI: The post modification DTI is outside of Acceptable Range of 25-42%. 4. Ineligible – Payment: The post modification P&I payment does not represent at least a 10% reduction compared to the pre modification P&I payment. 5. Ineligible – DTI & Payment: The modification did not satisfy neither of the affordability requirements (Acceptable DTI Range & 10% P&I reduction).

NPV Model Outputs

HAMP Tier 2 PRA

- Tier 2 PRA Principal Forgiveness Amount
- Tier 2 PRA Mod Rate
- Tier 2 PRA Mod Term
- Tier 2 PRA Mod Payment
- Tier 2 PRA Mod UPB
- Tier 2 PRA Value No Mod
- Tier 2 PRA Value Mod
- Tier 2 PRA – NPV Test

Sample Output

TIER2 PRA Forgiveness Amount	TIER2 PRA Mod Rate	TIER2 PRA Mod Term	TIER2 PRA Mod Payment	TIER2 PRA Mod UPB	TIER2 PRA Value No Mod	TIER2 PRA Value Mod	TIER2 PRA - NPV Test
41200	0.05	480	465.6	96558.3	-998.54	-2867.43	Negative
.	.	.	.	.	.	.	Ineligible- DTI
.	.	.	.	.	.	.	Ineligible- DTI
.	.	.	.	.	.	.	Ineligible- Payment
76500	0.05	480	859.47	178240.34	78172.06	87920.4	Positive
68000	0.05	480	766.64	158990.1	126632.43	123333	Negative
.	.	.	.	.	.	.	Ineligible - DTI & Payment
.	.	.	.	.	.	.	Ineligible- DTI
.	.	.	.	.	.	.	Ineligible- Payment

Error Codes

New

Code	Description	HAMP Tier 1	HAMP Tier 2
72	Tier 2 Interest Rate Override is outside the range of 0. 25%		✓
73	Missing Tier 2 Override Flag		✓
74	Tier 2 Forbearance amount override is less than $0 or greater the capitalized UPB amount		✓
75	Tier 2 PRA Forgiveness amount override is less than $0 or greater than the capitalized UPB amount		✓
76	Tier 2 Modification Term Override is less than the remaining term or greater than 600 months		✓
77	Missing or negative Primary Residence Total Housing Expense		✓
78	Missing or negative Property Monthly Gross Rental Income or less than $0		✓
79	Tier 2 Non-PRA Forgiveness amount is less than $0 or greater than capitalized UPB		✓
80	Missing Occupancy Eligibility	✓	✓
m	Ineligible– Loans that are 0 or 1 month past due but not in imminent default	✓	✓
n	Ineligible – Non-owner-occupied modifications that are less than 2 months past due are not eligible		✓
o	Capitalized UPB provided is inconsistent with the amount calculated from the sum of UPB After Modification, Principal Forbearance and Forgiveness amount	✓	
P	Tier 2 Investor Override Flag is Y and is missing at least one Investor Override fields is populated		✓
q	Missing Capitalized UPB or Capitalized UPB provided is less than the pre-modification UPB	✓	✓
r	Ineligible for Tier 2 modification – GSE loans with Occupancy Eligibility		✓
S	Tier 2 NPV evaluation cannot be run with and NPV date prior to 6/1/2012		✓

Error Codes

Inconsistent P&I

Error Code N:j

Inconsistent P&I calculation

- Under the Standard Modification Waterfall, the P&I After Modification provided **is inconsistent** with the P&I After Modification calculated from the provided UPB After Modification, Interest Rate After Modification, Amortization Term After Modification.

Sample Output

G	H	I	J	K	L
Value Mod	NPV Test	NPV Run Successful?	Run Date	Code Version	Freddie PMM
.		N: j	12/12/2011	Base_NPV_V4.03	0.0455

Source: For a complete list of error codes, refer to the User Guide – Home Affordable Modification Program Base Net Present Value Model Spreadsheet Tool v.5.0 *found on secured site on HMPadmin.com*

Error Codes

Resolution – Inconsistent P&I

Re-calculate the P&I using Inputs provided

- **Servicer provided UPB after Modification = $143,750.72**
- **Interest Rate after Modification = 2.00%**
- **Amortization Term After Modification = 480 months**
- **P&I After Modification should equal $435.31 not $500.00**

AJ	AK	AL	AM	AN	AO	AP	AQ	AR
MI Partial Claim Amount	Unpaid Principal Balance After Modification (Net of Forbearance & Principal Reduction)	Interest Rate After Modification	Amortization Term After Modification	Principal and Interest Payment After Modification	Principal Forbearance Amount	Principal Forgiveness Amount	Property Valuation Type	NPV Date
$0.0	$143,750.72	2.00000%	480	$435.31	$35,471.46	$0.00	1	06/06/20

AK	AL	AM	AN	AO	AP	AQ	AR
Unpaid Principal Balance After Modification (Net of Forbearance & Principal Reduction)	Interest Rate After Modification	Amortization Term After Modification	Principal and Interest Payment After Modification	Principal Forbearance Amount	Principal Forgiveness Amount	Property Valuation Type	NPV Date
$143,750.72	2.00000%	480	$500.00	$35,471.46	$0.00	1	06/06/2011

Error Codes

Unequal Total Debt Calculation

Error Code N:i

Unequal Total Debt Calculation

- Total debt in the Standard Modification Waterfall **does not equal** the total debt in the Alternative Modification Waterfall

Sample Output

G	H	I	J	K	L
Value Mod	NPV Test	NPV Run Successful?	Run Date	Code Version	Freddie PMMS Rate
.		N: i	12/12/2011	Base_NPV_V4.03	0.0455

Source: For a complete list of error codes, refer to the User Guide – Home Affordable Modification Program Base Net Present Value Model Spreadsheet Tool v.5.0 *found on secured site on HMPadmin.com*

Error Codes

Resolution – Unequal Total Debt Calculation

Standard Modification Inputs: ***UPB After Modification + Principal Forbearance = Standard Total Debt***

AK	AL	AM	AN	AO	AP	AQ	AR
Unpaid Principal Balance After Modification (Net of Forbearance & Principal Reduction)	Interest Rate After Modification	Amortization Term After Modification	Principal and Interest Payment After Modification	Principal Forbearance Amount	Principal Forgiveness Amount	Property Valuation Type	NPV Date
$158,519.31	2.00000%	480	$480.04	$161,500.00	$0.00	1	06/06/201

Standard Total Debt

$320,019.31

Compare

Standard Total Debt $320,019.31
does not equal
PRA Total Debt $316,019.31

PRA Inputs: ***UPB After Modification + Principal Forbearance + Principal Write-down = PRA Total Debt***

AS	AT	AU	AV	AW	AX	AY
(PRA) Unpaid Principal Balance After Modification	(PRA) Interest Rate After Modification	(PRA) Amortization Term After Modification	(PRA) Principal and Interest Payment After Modification	(PRA) Principal Forbearance Amount	(PRA) Principal Write-down (Forgiveness)	Maximum Months Past Due in Past Months
$158,500.00	2.00000%	480	$479.98	$125,000.00	$32,519.31	

PRA Total Debt

$316,019.31

Correction

$129,000.00
Correct value for (PRA) Forbearance

$320.019.31
Total Debt for PRA

Error Codes

Inaccurate Amortization Term

Error Code 54

Inaccurate Amortization Term After Modification

- Amortization term after modification is greater than the maximum of (480 months or the remaining term) or Amortization term after modification is less than the remaining term.

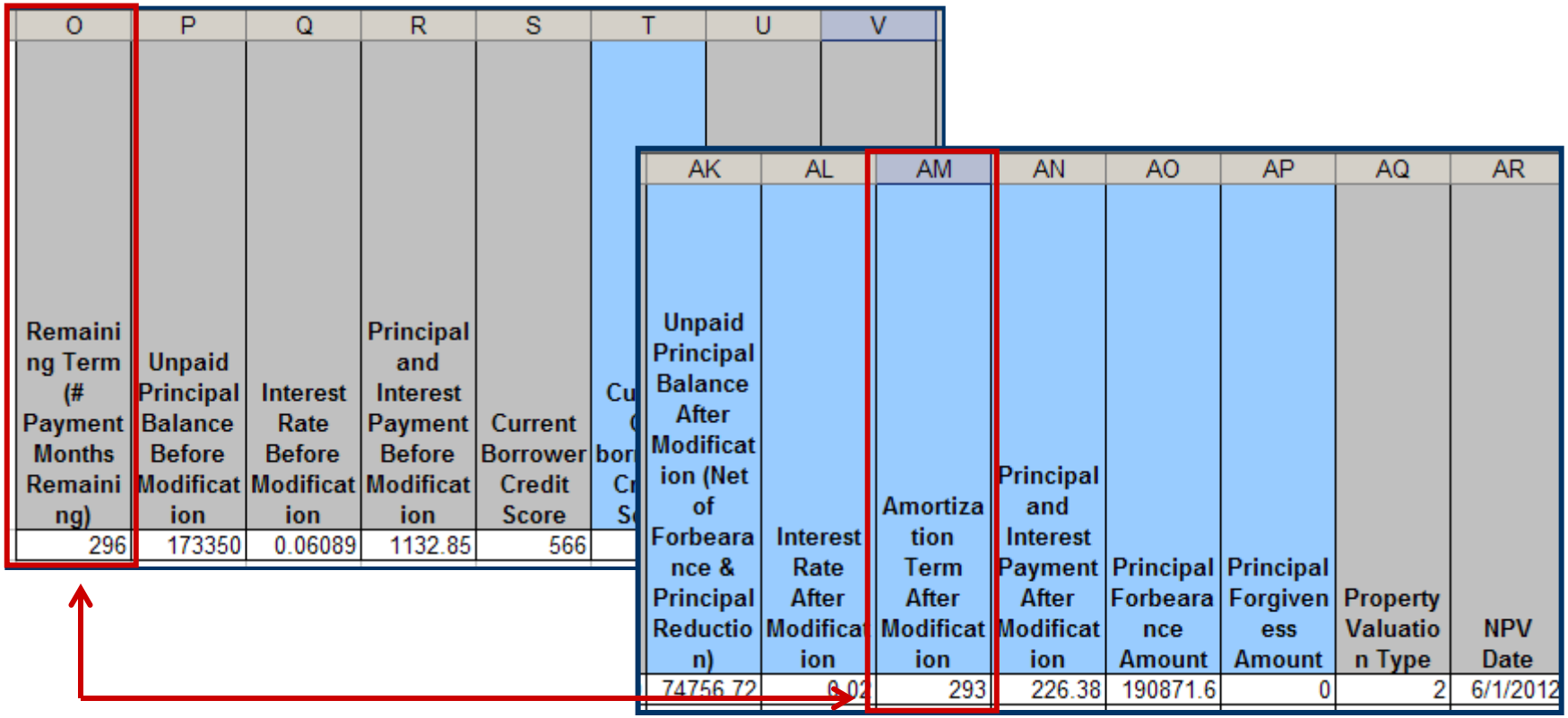
Sample Output

	Servicer Loan Number	Waterfall Test	De minimis Test	Forbearance Flag	HAMP Value No Mod	HAMP Value Mod	HAMP NPV Test	NPV Run Successful?	Run Date	Code Version	Freddie PMMS Rate
3	10000004			-	.			N: 54	6/3/2012	Base_NPV_V5.0	0.0449
3	10000005								2/29/2012	Base_NPV_V5.0	0.0449

Source: For a complete list of error codes, refer to the User Guide – Home Affordable Modification Program Base Net Present Value Model Spreadsheet Tool v.5.0 *found on secured site on HMPadmin.com*

Error Codes

Resolution - Inaccurate Amortization Term



O	P	Q	R	S	T	U	V
Remaining Term (# Payment Months Remaining)	Unpaid Principal Balance Before Modification	Interest Rate Before Modification	Principal and Interest Payment Before Modification	Current Borrower Credit Score	Cu bor Cr S		
296	173350	0.06089	1132.85	566			

AK	AL	AM	AN	AO	AP	AQ	AR
Unpaid Principal Balance After Modification (Net of Forbearance & Principal Reduction)	Interest Rate After Modification	Amortization Term After Modification	Principal and Interest Payment After Modification	Principal Forbearance Amount	Principal Forgiveness Amount	Property Valuation Type	NPV Date
74756.72	0.02	293	226.38	190871.6	0	2	6/1/2012

- This example illustrates that Error 54 was triggered because the amortization term after modification is less than the remaining term.
- To resolve this error, check to make sure that all the modification terms were calculated as of the Data Collection Date, not the Modification Effective Date.

Error Codes

Inconsistent Capitalized UPB

Error Code o

Inconsistent Capitalized UPB

- Capitalization UPB provided is inconsistent with the amount calculated from the sum UPB After Modification (Net of Forbearance & Principal Reduction), Principal Forbearance Amount and Principal Forgiveness Amount.

Sample Output

HAMP Servicer ID	Servicer Loan Number	Waterfall Test	De minimis Test	Forbearance Flag	HAMP Value No Mod	HAMP Value Mo	HAMP NPV Test	NPV Run Successful?	Run Date	Code Version	Freddie PMMS Rate
1.23E+08	10000003			-				N: o	6/3/2012	Base_NPV_V5.0	0.0449
1.23E+08	10000005								2/29/2012	Base_NPV_V5.0	0.0449

Source: For a complete list of error codes, refer to the User Guide – Home Affordable Modification Program Base Net Present Value Model Spreadsheet Tool v.5.0 *found on secured site on HMPadmin.com*

Error Codes

Resolution - Inconsistent Capitalized UPB

AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA
Unpaid Principal Balance After Modification (Net of Forbearance & Principal Reduction)	Interest Rate After Modification	Amortization Term After Modification	Principal and Interest Payment After Modification	Principal Forbearance Amount	Principal Forgiveness Amount	Property Valuation Type	NPV Date	PRA Waterfall - Unpaid Principal Balance After Modification (Net of PRA Forbearance & PRA Principal Reduction)	PRA Waterfall - Interest Rate After Modification	PRA Waterfall - Amortization Term After Modification	PRA Waterfall - Principal and Interest Payment After Modification	PRA Waterfall - Principal Forbearance Amount	PRA Waterfall - Principal Forgiveness Amount	Max Months Past Due in Past 12 Months	Occupancy Eligibility	Capitalized UPB Amount
426072.07	0.02	480	1290.26	106100	0	2	6/1/2012	411700	0.02	455	1291.589	0	120472.1	22	1	532171.06

AK + **AO** + **AP** = **BA**

Re-calculate the Capitalized UPB

- **Capitalized UPB should equal the sum of fields AK, AO, AP (ie, UPB after mod+ forbearance + forgiveness)**
- **Sum of fields AK, AO, and AP = $532,172.07**
- **Capitalized UPB = $532,171.06 (Difference is $1.01)**
- ***Resolve:*** **Check and/or correct all four fields AK–AO–AP–BA**

Interpreting NPV Results

NPV – Single Evaluation Process

NPV will be run as a **single evaluation process**. The NPV model will return NPV results for both HAMP Tier 1 and HAMP Tier 2, as well as calculate the results for both Waterfalls, if applicable, for HAMP Tier 2.

Occupancy Eligibility	Tier 1 Result	Tier 2 Result	Offer
Owner-Occupied, HAMP Tier 1 Eligible	Positive	Positive	**Tier 1**
	Positive	Negative	**Tier 1**
	Negative	Positive	**Tier 2** **Tier 1 (optional)**
	Negative	Negative	**Tier 1 or Tier 2 (optional)**
Rental Property or other HAMP Tier 1 Ineligible	N/A	Positive	**Tier 2**
	N/A	Negative	**Tier 2 (optional)**

Interpreting NPV Results

Evaluating Waterfall Results

Waterfall Type	NPV Result		Servicer Action
Standard **Alternative**	Positive Positive	➡	• MUST modify the borrower's loan to the terms of the Standard Modification Waterfall, or • MAY to modify the borrower's loan to the terms of the Alternative Modification Waterfall.
Standard **Alternative**	Positive Negative	➡	• MUST modify the borrower's loan to the terms of the Standard Modification Waterfall, or • MAY modify the loan to the terms of the Alternative Modification Waterfall.
Standard **Alternative**	Negative Positive	➡	• ENCOURAGED to modify the borrower's loan to the terms of the Alternative Modification Waterfall.
Standard **Alternative**	Negative Negative	➡	• MAY modify the borrower's loan to the terms of the Standard or Alternative Modification Waterfall.

Resources

HMPadmin.com

Help for America's Homeowners

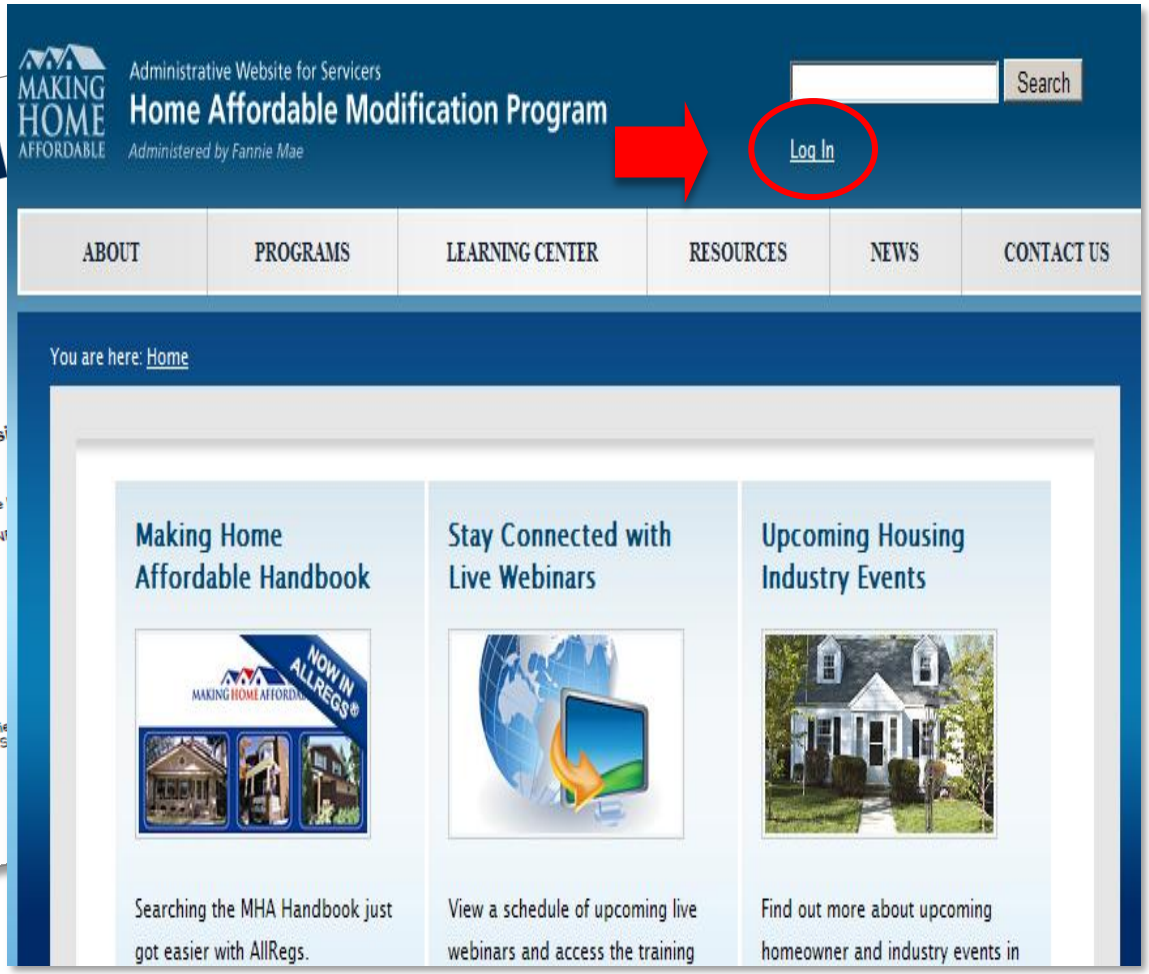
MAKING HOME AFFORDABLE

User Guide – Home Affordable Modification Program
Base Net Present Value Model Spreadsheet Tool v5.0

Updated: June 1, 2012
Effective: June 1, 2012

Significant User Guide Changes from Base NPV Model Version 4.0 to Versi

1. Base NPV Model Inputs Table (pp. 24-34)
   a. Descriptions for allowable ranges for various fields have been refined
   b. To accommodate the HAMP Tier 2 program NPV evaluations, new input fields have added.
   c. Timing of the calculation of the cash flows has been clarified – for the purpose of N evaluations, the modification starts from the Data Collection Date.
   d. Guidance on NPV Date for Tier 2 (p3)
2. NPV Run Successful? "N" Error Code Table (pp. 18-21)
   a. New error codes: "m" through "s," and 72 through 80.
   b. Enhancements to existing error codes: 16, 22, 54, 61, 62, 66, 68, 69.
3. New Output Fields (pp. 15-17)
   a. To accommodate the HAMP Tier 2 program NPV evaluations, new output fie added to display Tier 2 waterfall terms and NPV results for both the Tier 2 S Alternative waterfalls.
4. System requirements for using the NPV Excel Tool update (p.8)



Discussion / Questions

Thank You