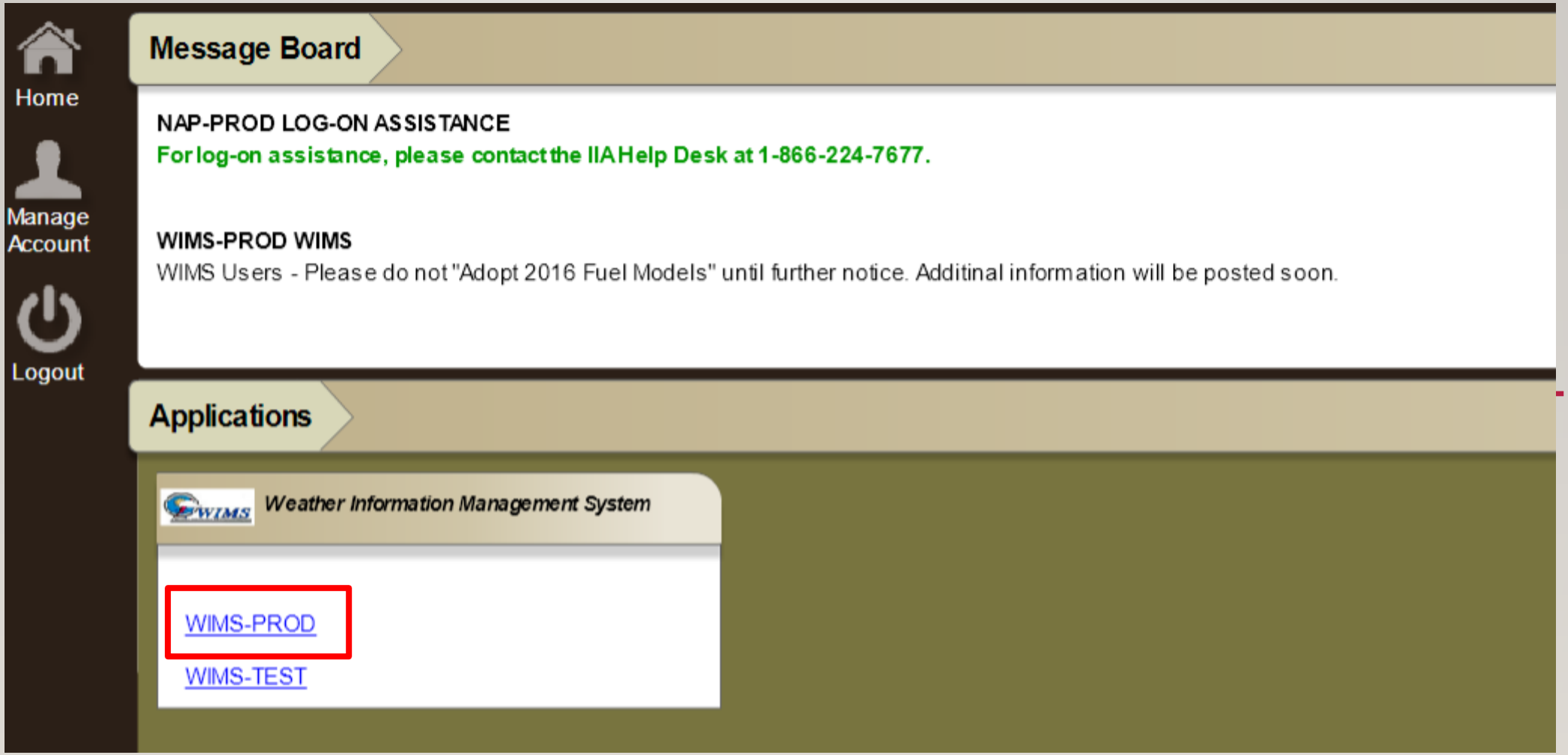
ADDING NFDRS2016 FUEL MODEL BREAKPOINTS IN WIMS

SIGN INTO WIMS USING NAP ACCOUNT



ENTER "ENFDR" INTO THE WIMS FASTPATH CLICK "GO"

ENTER WIMS ID INTO THE STATION ID BOX AND CLICK "FIND"

Display/Edit Default NFDRS Parameters

Back to Menu

Station ID: 211803 Effective Date: 13-Feb-20 Find Reset Save View Change Archive

NFDR Parameters | GSI Herb FM Options | GSI Woody FM Options | Nelson Dead Fuel Moisture Options | Load Fuel Model Percentiles

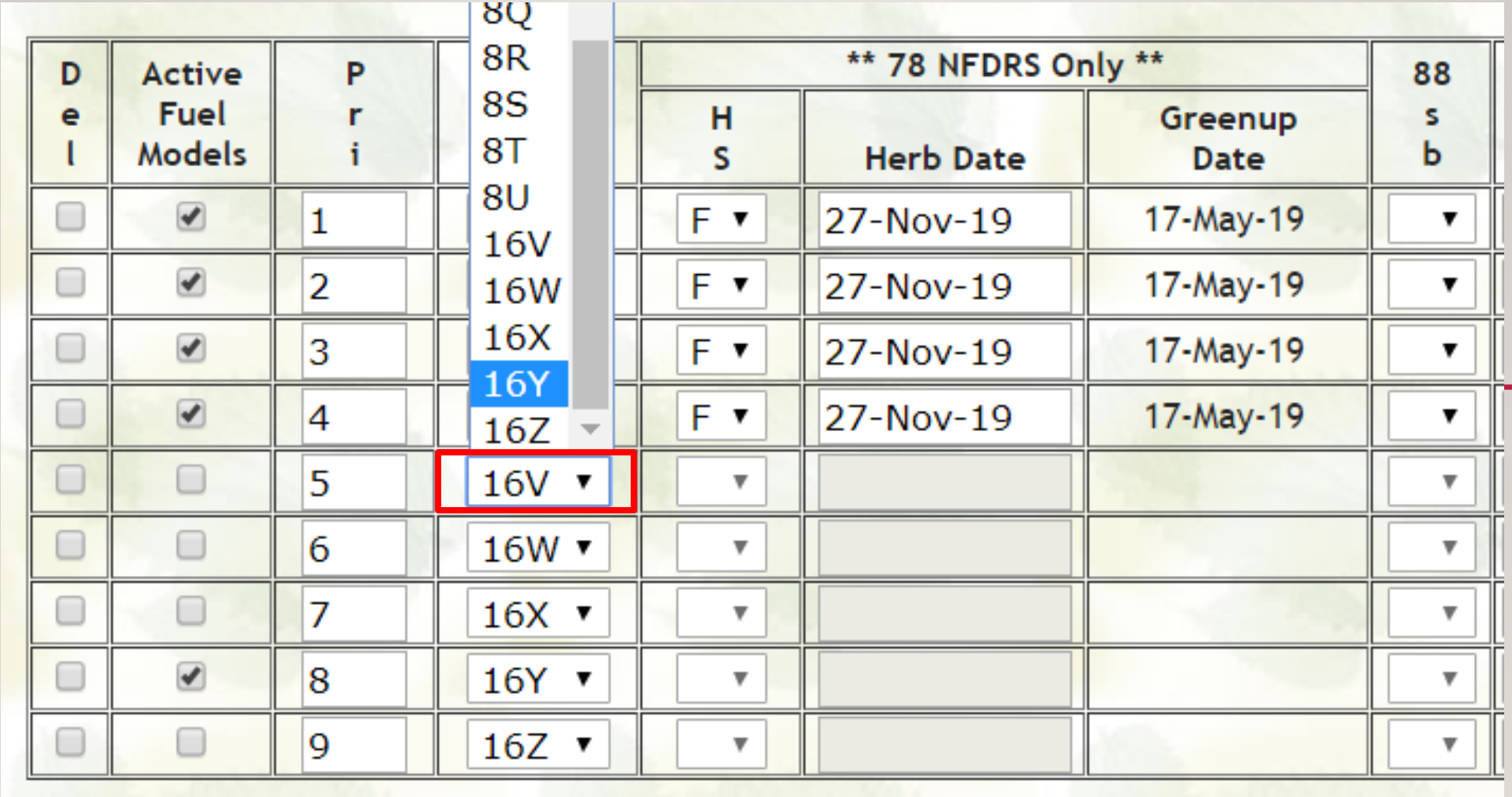
78 & 88 NFDRS	100-hr	28
	1000-hr	28
88 NFDRS	1hr=10hr	☐
	KBDI	0

SOW Thresholds (No Precip last 24 Hrs)	Pct Psbl	SOW & Wet Flag Thresholds (Precip last 24 Hrs)	CC3* Default?
PCNT_Clear	85	1HR_Drizzle (inches)	0.05
PCNT_Scattered	75	1HR_Rain (inches)	0.1
PCNT_Broken	50	1HR_Showers (inches)	0.25
		3HR_DUR_WetFlag (hours)	3
		3HR_AMT_WetFlag (inches)	0.5
		24HR_DUR_WetFlag (hours)	12
		24HR_AMT_WetFlag (inches)	1.0

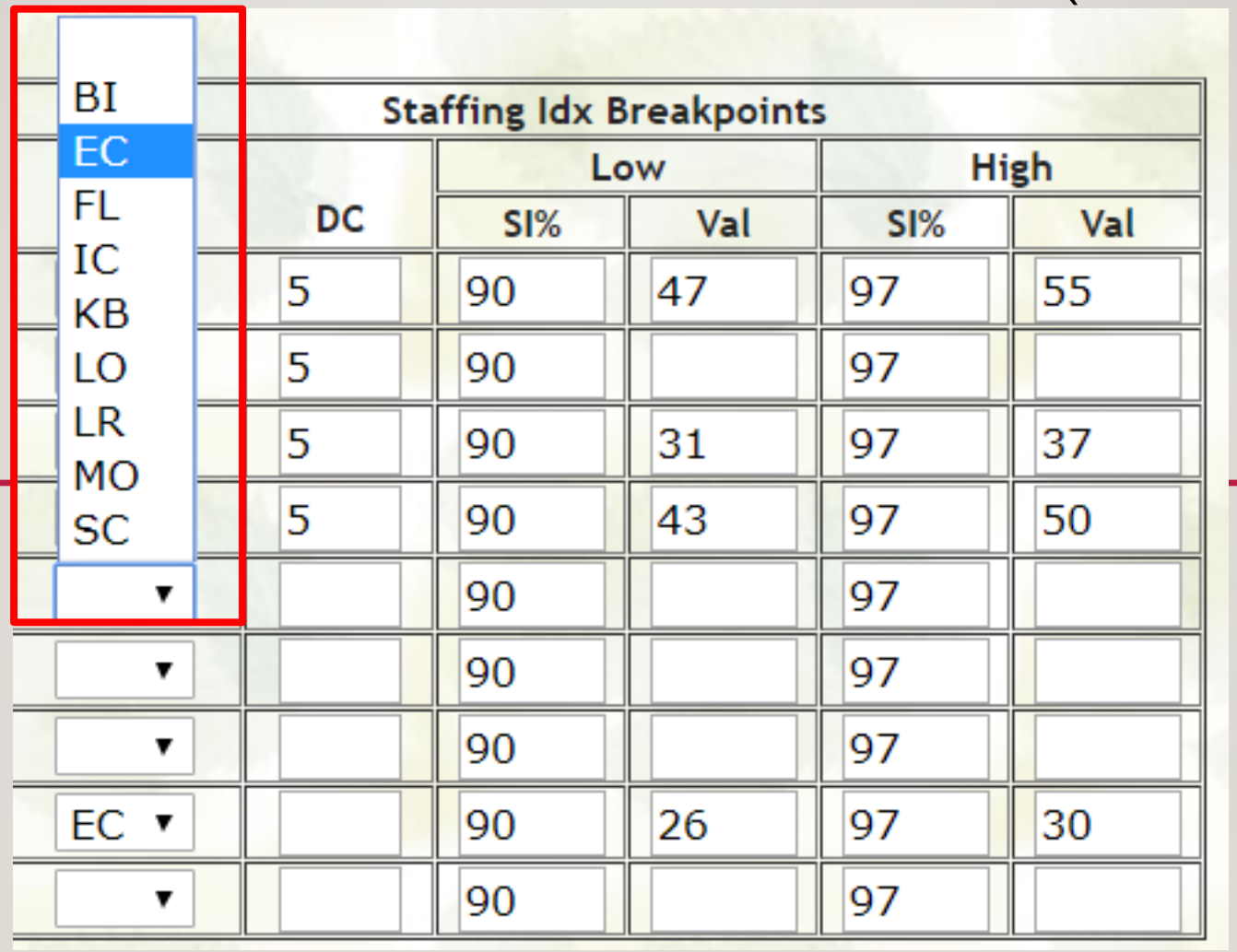
* Climate Class of the first priority Fuel Model (7L)

Del	Active Fuel Models	Pri	ID	** 78 NFDRS Only ** HS	Herb Date	Greenup Date	88sb	Slp	Grs	Cli	MXD	SCM	Herb FM	Woody FM	X-1000	Staffing Idx Breakpoints SI	DC	Low SI%	Low Val	High SI%	High Val
☐	☑	1	7L	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	178	35	70	28	BI	5	90	47	97	55
☐	☑	2	7G	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	30	35	70	28	EC	5	90		97	
☐	☑	3	7Q	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	59	35	70	28	EC	5	90	31	97	37
☐	☑	4	7E	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	25	35	70	28	BI	5	90	43	97	50
☐	☐	5	16V					1=0-25%	P		L	108						90		97	
☐	☐	6	16W					1=0-25%	P		L	62						90		97	
☐	☐	7	16X					1=0-25%	P		L	104						90		97	

SELECT THE NFDRS2016 FUEL MODEL IN THE DROPDOWN UNDER THE "ID" COLUMN"



SELECT THE FIRE DANGER INDEX YOU WISH TO USE WITH THE SELECTED NFDRS2016 FUEL MODEL UNDER SC (STAFFING CLASS)



ENTER THE 90TH AND 97TH PERCENTILE CLIMATOLOGICAL BREAKPOINTS COMPUTED USING FIRE FAMILY PLUS 5.0

Staffing Idx Breakpoints					
		Low		High	
SI	DC	SI%	Val	SI%	Val
BI	5	90	47	97	55
EC	5	90		97	
EC	5	90	31	97	37
BI	5	90	43	97	50
EC		90	26	97	32
		90		97	
		90		97	
EC		90	26	97	30
		90		97	

REPEAT ENTRIES FOR ANY ADDITIONAL FUEL MODELS AND FIRE DANGER INDICES IN ADDITIONAL ROWS

Ensure the Slope Class and Grass Types (Annual or Perennial) are correct

Del	Active Fuel Models	Pri	ID	** 78 NFDRS Only ** HS	Herb Date	Greenup Date	88sb	Slp	Grs	Cli	MXD	SCM	Herb FM	Woody FM	X-1000	SI	DC	Low SI%	Low Val	High SI%	High Val
☐	☑	1	7L	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	178	35	70	28	BI	5	90	47	97	55
☐	☑	2	7G	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	30	35	70	28	EC	5	90		97	
☐	☑	3	7Q	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	59	35	70	28	EC	5	90	31	97	37
☐	☑	4	7E	F	27-Nov-19	17-May-19		1=0-25%	P	3	L	25	35	70	28	BI	5	90	43	97	50
☐	☐	5	16V					1=0-25%	P		L	108				EC		90	26	97	32
☐	☐	6	16W					1=0-25%	P		L	62						90		97	
☐	☐	7	16X					1=0-25%	P		L	104						90		97	
☐	☑	8	16Y					1=0-25%	P		L	5				EC		90	26	97	30
☐	☐	9	16Y					1=0-25%	P		L	5						90		97	

Select NFDRS2016 Fuel Models and Indices which have been determined to correspond statistically to fire business thresholds through Fire Family Plus 5.0 analysis.

Note: **One of the new NFDRS2016 fuel models should be 16Y to compare to the previous national standard 7G.**

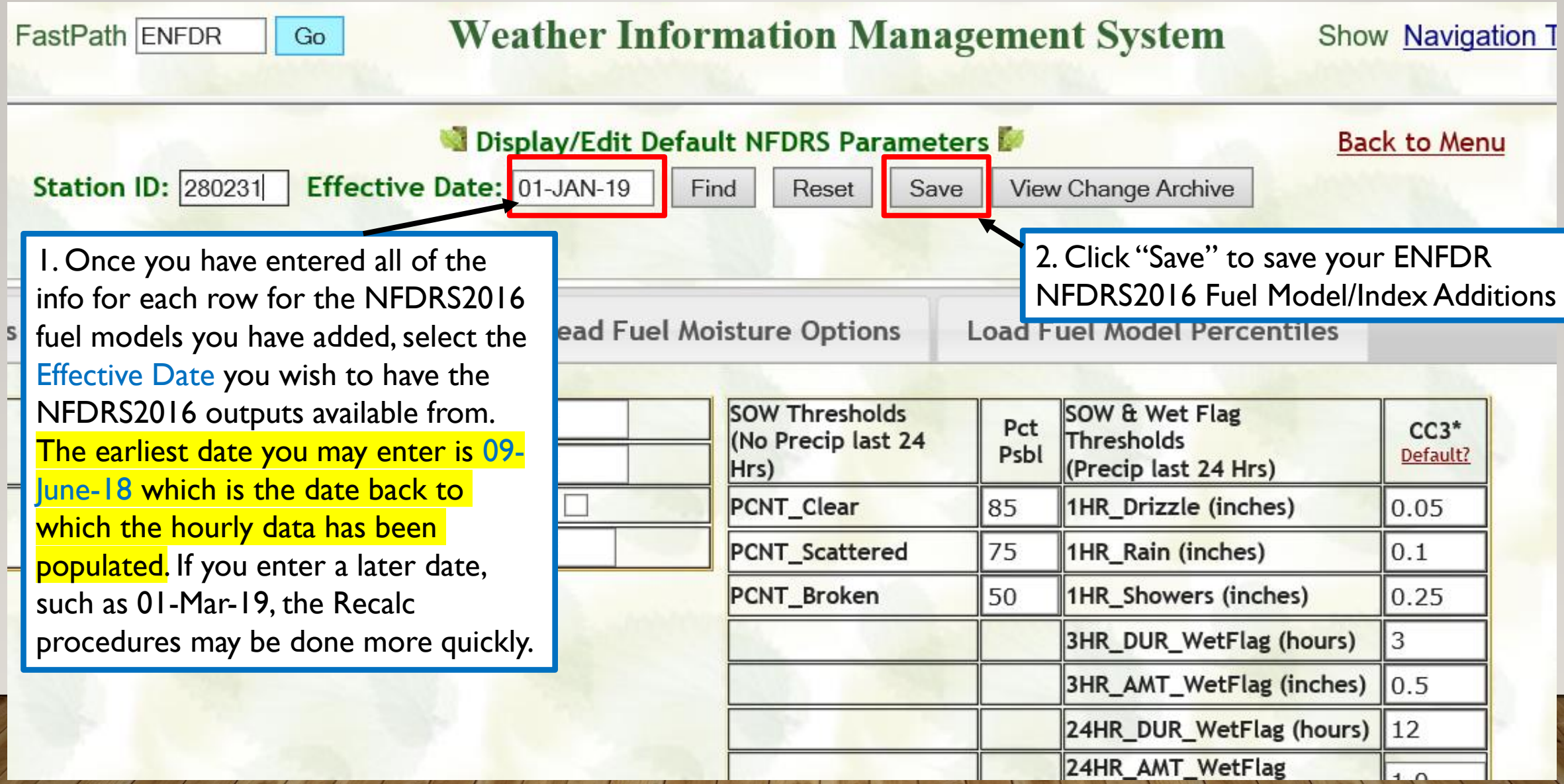
If fire business analysis has not been completed select NFDRS2016 fuel models and indices which are similar to the 1978/88 fuel models listed which are currently used. E.G. ERC-7G is similar to ERC-16Y.

NFDRS 2016 Fuel Type	NFDRS 2016 Fuel Model	Equivalent NFDRS 1978 Fuel Model
Grass	V	A,L,T
Grass / Shrub	W	R,S,C,D
Brush	X	B, F
Timber	Y	G,H,N,P,O,Q,U,E
Slash	Z	I,J,K

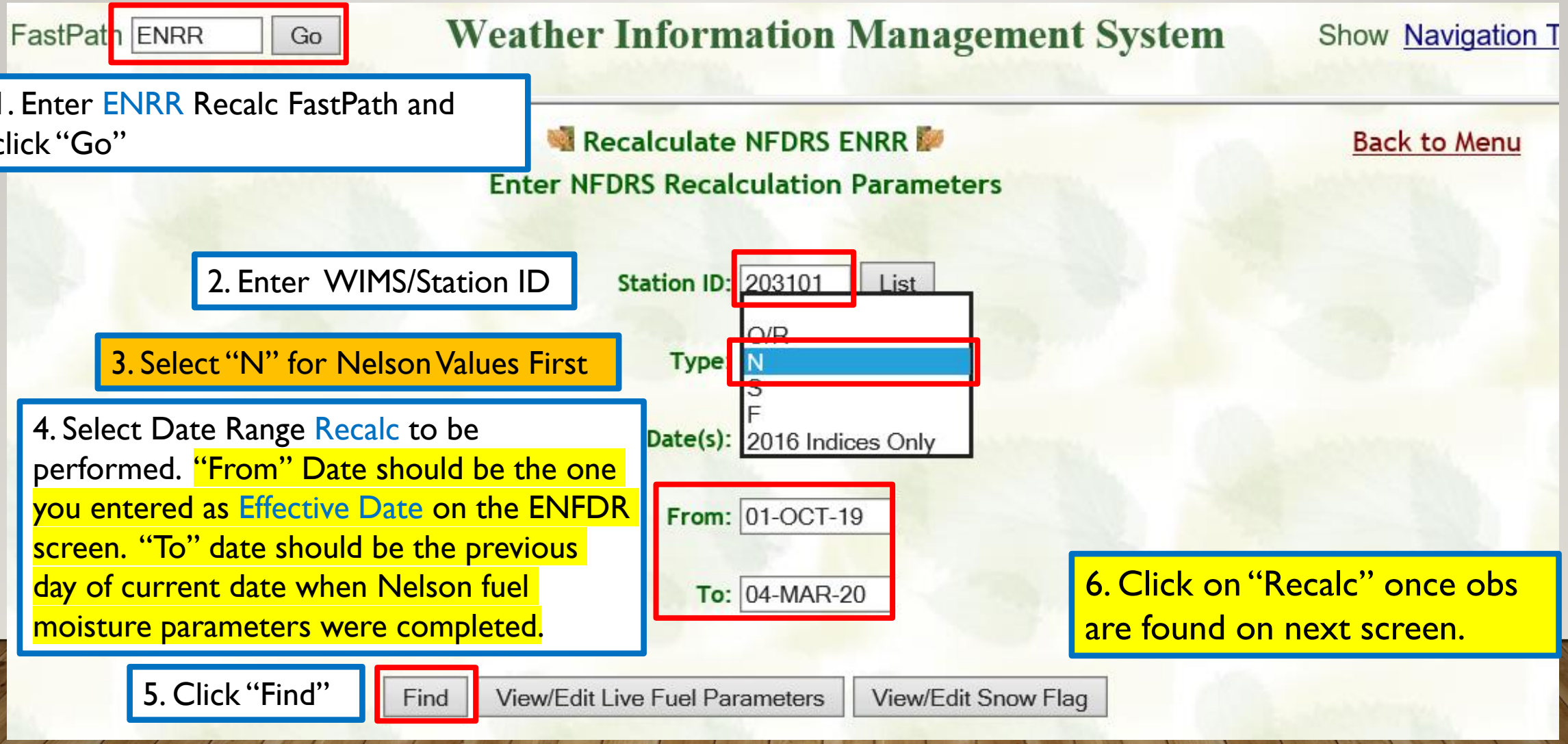
CLICK THE "ACTIVE FUEL MODELS" CHECK BOXES FOR NFDRS2016 FUEL MODELS

Del	Active Fuel Models	Pri	ID	** 78 NFDRS Only **			88sb	Slp
				HS	Herb Date	Greenup Date		
☐	☑	1	7L	F	27-Nov-19	17-May-19		1=0-25°
☐	☑	2	7G	F	27-Nov-19	17-May-19		1=0-25°
☐	☑	3	7Q	F	27-Nov-19	17-May-19		1=0-25°
☐	☑	4	7E	F	27-Nov-19	17-May-19		1=0-25°
☐	☑	5	16V					1=0-25°
☐	☑	6	16W					1=0-25°
☐	☑	7	16X					1=0-25°
☐	☑	8	16Y					1=0-25°
☐	☑	9	16Y					1=0-25°

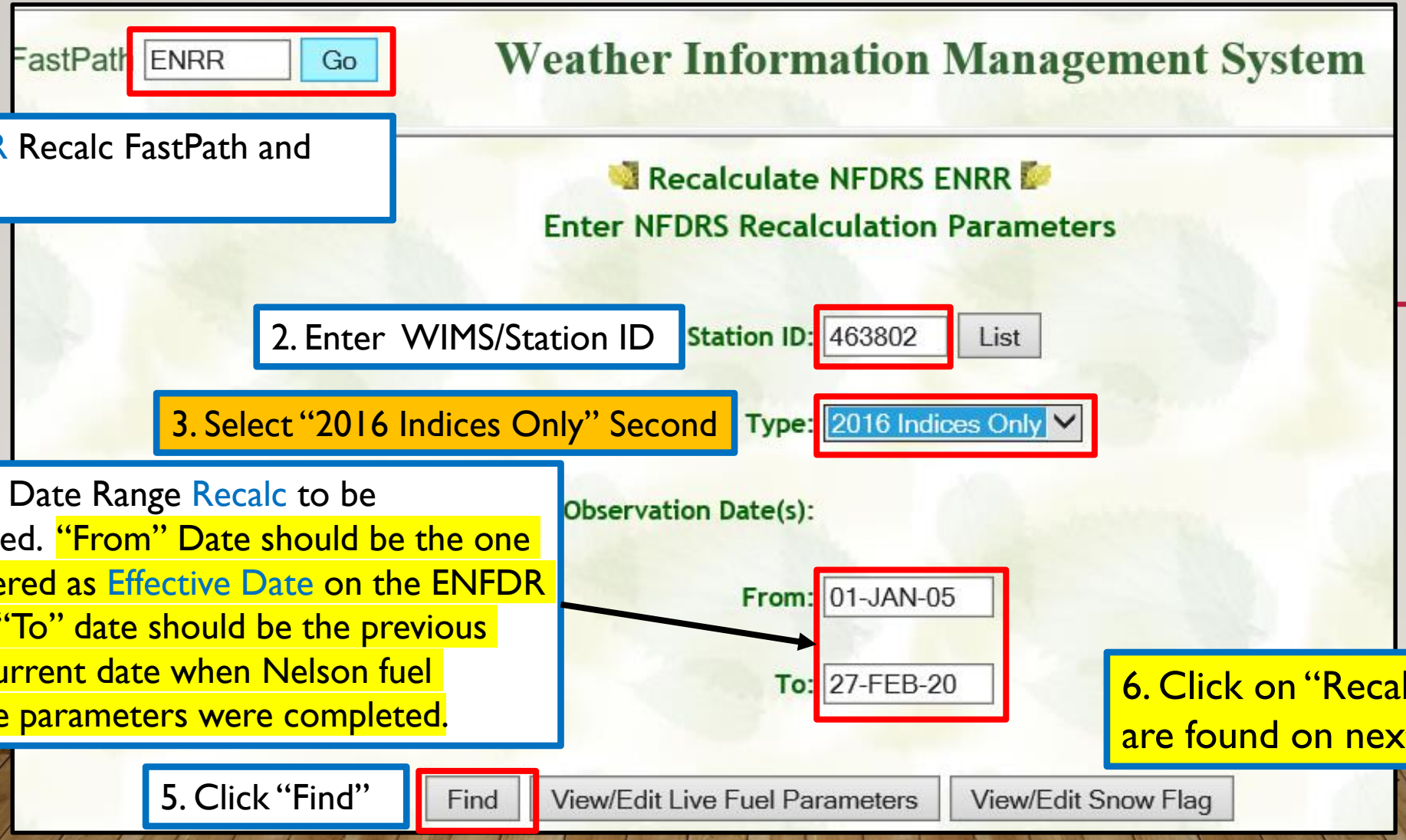
ENTER EFFECTIVE DATE AND THEN "SAVE" BUTTON AT TOP TO SAVE YOUR ADDITIONS



A RECALCULATION OF THE OBSERVATIONS MUST BE PERFORMED AFTER THE NFDRS2016 FUEL MODELS/INDICES/BREAKPOINTS HAVE BEEN ENTERED TO POPULATE THE STAFFING LEVELS AND ADJECTIVE RATING FIELDS FOR NFDRS2016



A RECALCULATION OF THE OBSERVATIONS MUST BE PERFORMED AFTER THE NFDRS2016 FUEL MODELS/INDICES/BREAKPOINTS HAVE BEEN ENTERED TO POPULATE THE STAFFING LEVELS AND ADJECTIVE RATING FIELDS FOR NFDRS2016



1. Enter ENRR Recalc FastPath and click "Go"

2. Enter WIMS/Station ID

3. Select "2016 Indices Only" Second

4. Select Date Range Recalc to be performed. "From" Date should be the one you entered as Effective Date on the ENFDR screen. "To" date should be the previous day of current date when Nelson fuel moisture parameters were completed.

5. Click "Find"

6. Click on "Recalc" once obs are found on next screen.

TIPS FOR ADDING NFDRS2016 FUEL MODEL/INDICES TO WIMS

- Obtain all of the fuel model/data information you'll need before going into WIMS. If fire business analysis has been done in Fire Family Plus 5.0 to establish the "best fit" fuel models/indices, use these to run the climatological breakpoints which are to be entered into the ENFDR page for the 90th/97th percentile breakpoints for each added fuel model.

- For each fuel model entry row on the bottom of the ENFDR page (fuel model/index combination), slope class and grass type, the rating index (SI), and SI% and Val fields must be entered.

- The Effective Date entered at the top of the ENFDR screen is the date from which you would like the NFDRS2016 outputs to be available. (earliest date you can use is 09-Jun-18 which is date that the hourly observation data has been populated back to in WIMS). Historical comparisons between the can then be made back to this date.

- Strive to use the ENFDR screen only once to populate the station catalog with all the NFDRS2016 parameters. This ensures that the Effective Date is consistent for everything being added, and all data are available concurrently. Doing one row at a time (with multiple ENFDR entries and inadvertently entering different Effective Dates) leads to inconsistencies and more recalcs!

- Do not allow for ANY partially filled in rows. If a fuel model is being activated, every available field that needs to be populated needs to be there….otherwise they should be blank. Prepare for bizarre outcomes if this rule isn't followed!

COMPARING NFDRS 1978/88 AND NFDRS2016 FUEL MODELS/FIRE DANGER INDICES

ENTER "DIDX" INTO THE WIMS FASTPATH TEXTBOX AND CLICK "GO"

ENTER WIMS ID OR SIG INTO THE STATION ID BOX, ENTER DATE RANGE, AND CLICK "FIND"

CLICK THE FUEL MODELS YOU WISH TO COMPARE CLICK "FIND" AGAIN

Display Index Format DIDX

Back to Menu

Station ID: 211604 or SIG Type: Start Date: 24-FEB-20 End Date: 26-FEB-20 Time: 13 Find Reset Print Export

Select which fuel models to display

☑ P1: 7G1P3 ☐ P2: 7N1P3 ☐ P3: 7C1P3 ☐ P4: 7Q1P3 ☐ P5: 16V1P ☐ P6: 16W1P ☐ P7: 16X1P ☑ P8: 16Y1P ☐ P9: 16Z1P

Station ID	Obs Date	Obs Tm	Obs Type	MSGC	Wind SP	WDY FM	HRB FM	1H FM	10 FM	HU FM	TH FM	XH	IC	SC	ERC	BI	SL	R	KBDI	FL	LR	LO	HC Rsk	HO
211604	26-Feb-20	13	N	16Y1P	2	60.0	30.0	32.64	25.24	23.29	23.21	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604	26-Feb-20	13	R	7G1P3	2	70.0	35.0	35.00	35.00	27.65	27.84	27.84	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0
211604	25-Feb-20	13	N	16Y1P	4	60.0	30.0	32.64	25.24	23.30	23.21	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604	25-Feb-20	13	R	7G1P3	4	70.0	35.0	35.00	35.00	27.57	27.85	27.85	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0
211604	24-Feb-20	13	N	16Y1P	3	60.0	30.0	32.64	25.24	23.32	23.22	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604	24-Feb-20	13	R	7G1P3	3	70.0	35.0	35.00	35.00	27.59	27.87	27.87	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0

Total number of rows retrieved: 6 Completeness percentage: 11.11%

COMPARE THE 1978/88 (7 OR 8 PREFIX) WITH THE NFDRS2016 (16 PREFIX) FUEL MODEL INDICES, STAFFING LEVELS (SL), AND ADJECTIVE RATING (R) BELOW

Display Index Format DIDX

Back to Menu

Station ID: 211604 or SIG Type: Start Date: 24-FEB-20 End Date: 26-FEB-20 Time: 13 Find Reset Print Export

Select which fuel models to display

☑ P1: 7G1P3 ☐ P2: 7N1P3 ☐ P3: 7C1P3 ☐ P4: 7Q1P3 ☐ P5: 16V1P ☐ P6: 16W1P ☐ P7: 16X1P ☑ P8: 16Y1P ☐ P9: 16Z1P

Station ID	Obs Date	Obs Tm	Obs Type	MSGC	Wind SP	WDY FM	HRB FM	1H FM	10 FM	HU FM	TH FM	XH	IC	SC	ERC	BI	SL	R	KBDI	FL	LR	LO	HC Rsk	HO
211604	26-Feb-20	13	N	16Y1P	2	60.0	30.0	32.64	25.24	23.29	23.21	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604	26-Feb-20	13	R	7G1P3	2	70.0	35.0	35.00	35.00	27.65	27.84	27.84	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0
211604	25-Feb-20	13	N	16Y1P	4	60.0	30.0	32.64	25.24	23.30	23.21	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604								35.00	35.00	27.57	27.85	27.85	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0
211604								32.64	25.24	23.32	23.22	-99.99	0.0	0.0	0.6	0.0	1	L	2	0	0	0	0	0
211604								35.00	35.00	27.59	27.87	27.87	0.0	0.0	0.0	0.0	1	L	2	0	0	0	0	0

er of rows retrieved: 6 Completeness percentage: 11.11%

Select which f

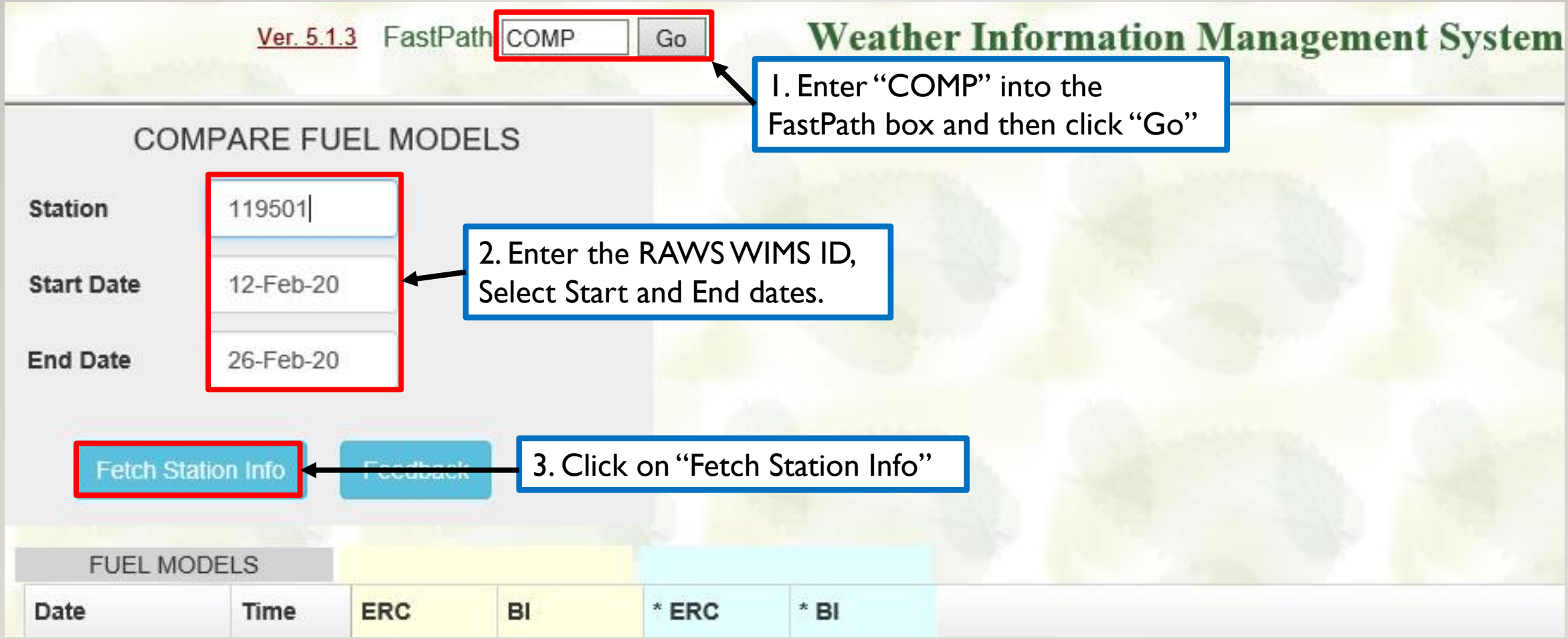
☑ P1: 7G1P

NFDR observation type ("O"=Published, "R"=Unpublished, "N"=Nelson, "F"=Forecast, "S"=Special)

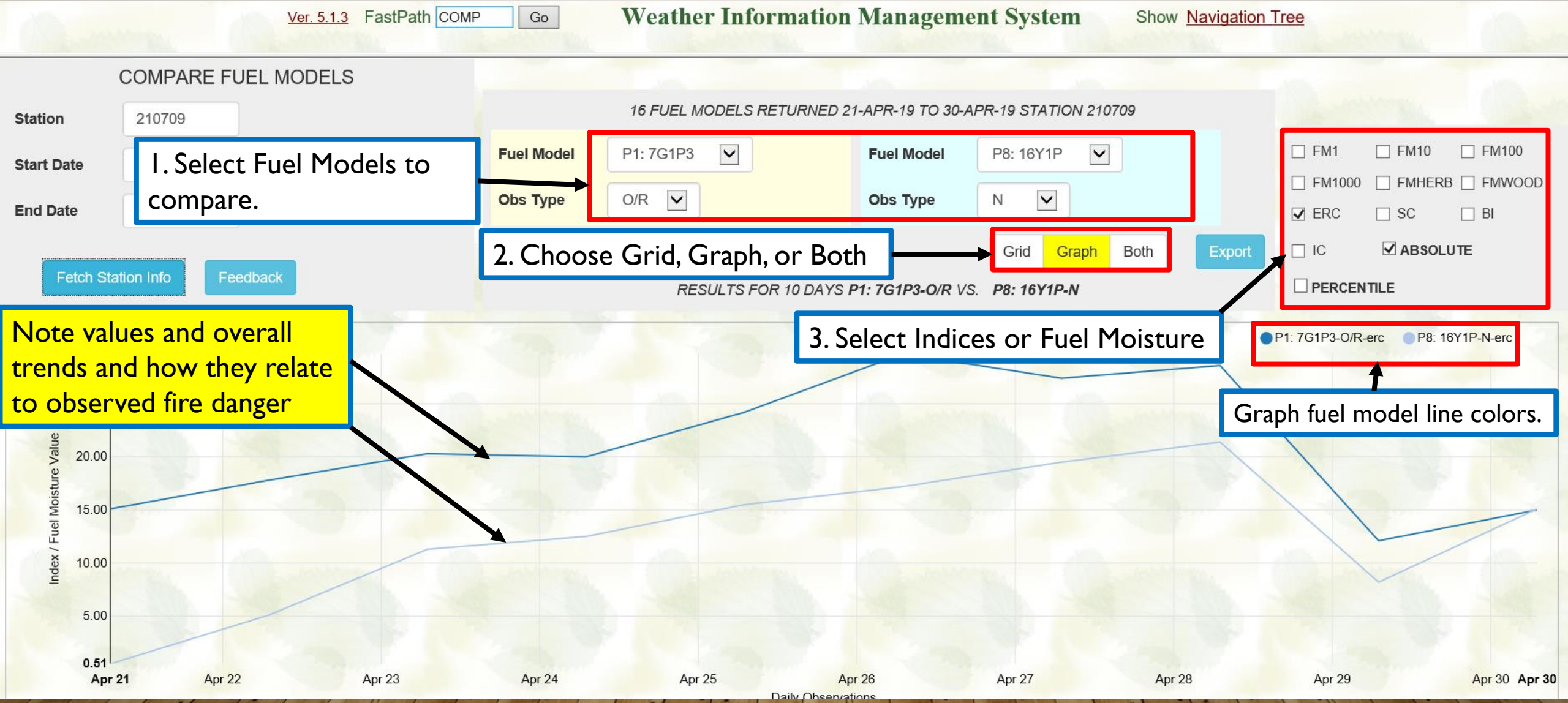
Station ID	Obs Date	Obs Tm	Obs Type	MSGC	Wind SP
211604	26-Feb-20	13	N	16Y1P	2
211604	26-Feb-20	13	R	7G1P3	2
211604	26-Feb-20	13	R	7N1P3	2

Hover cursor over WIMS column headers for explanation of contents.

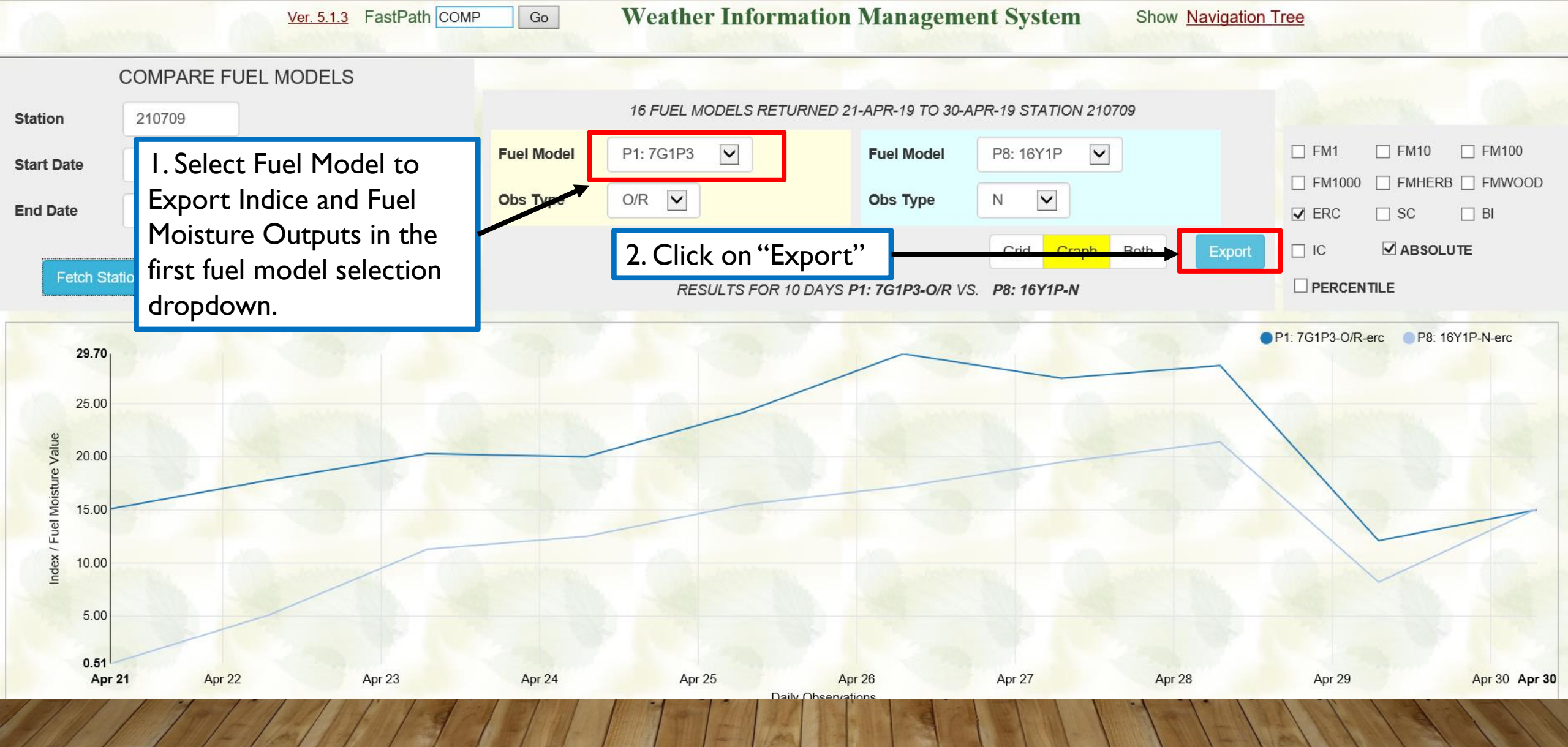
ALTERNATE METHOD TO COMPARING FUEL MODEL OUTPUTS-COMP WIMS FASTPATH



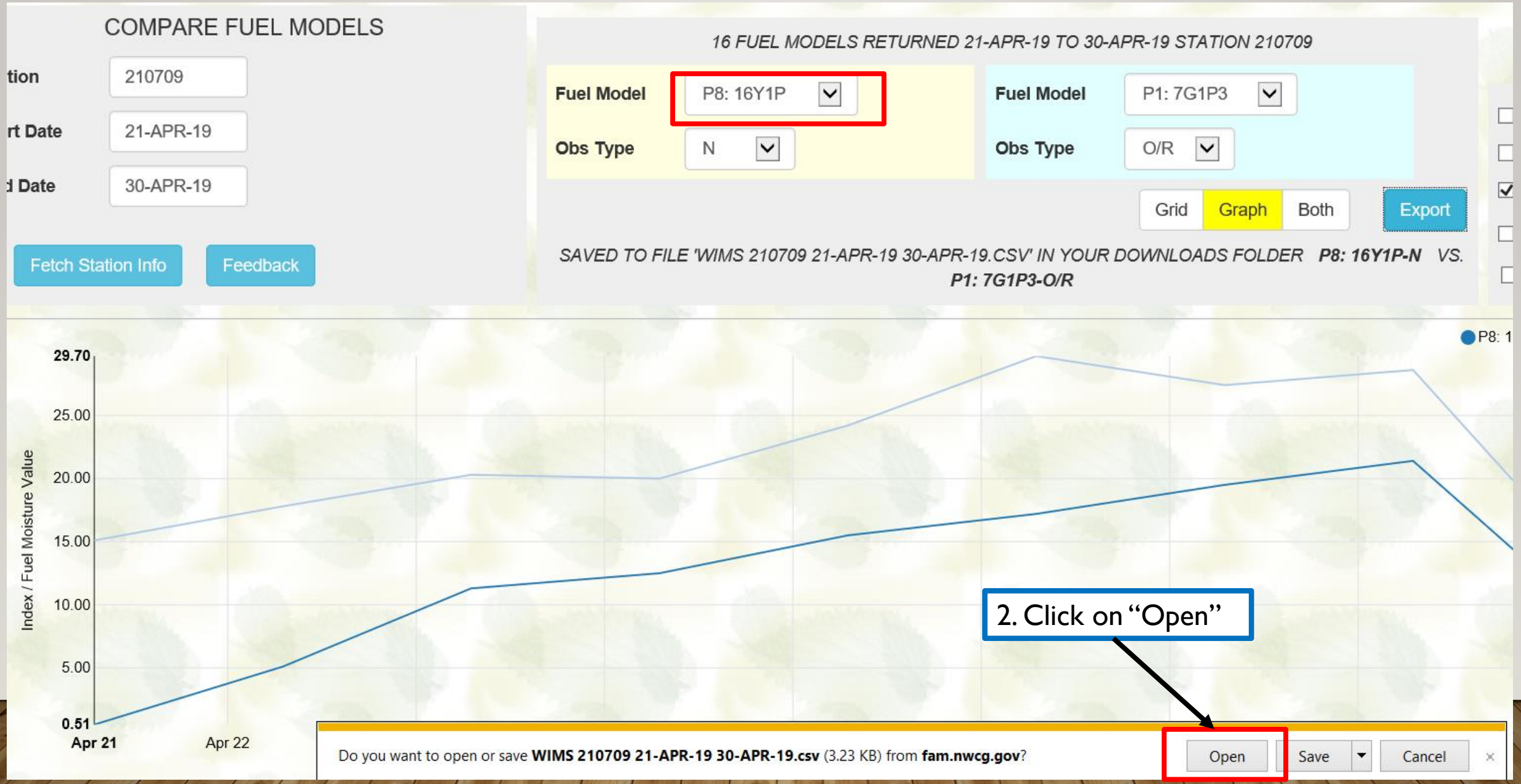
SELECT FUEL MODELS AND INDICES TO COMPARE ABSOLUTE VALUES OF 1978/88 AND NFDRS2016 INDICES/FUEL MOISTURES



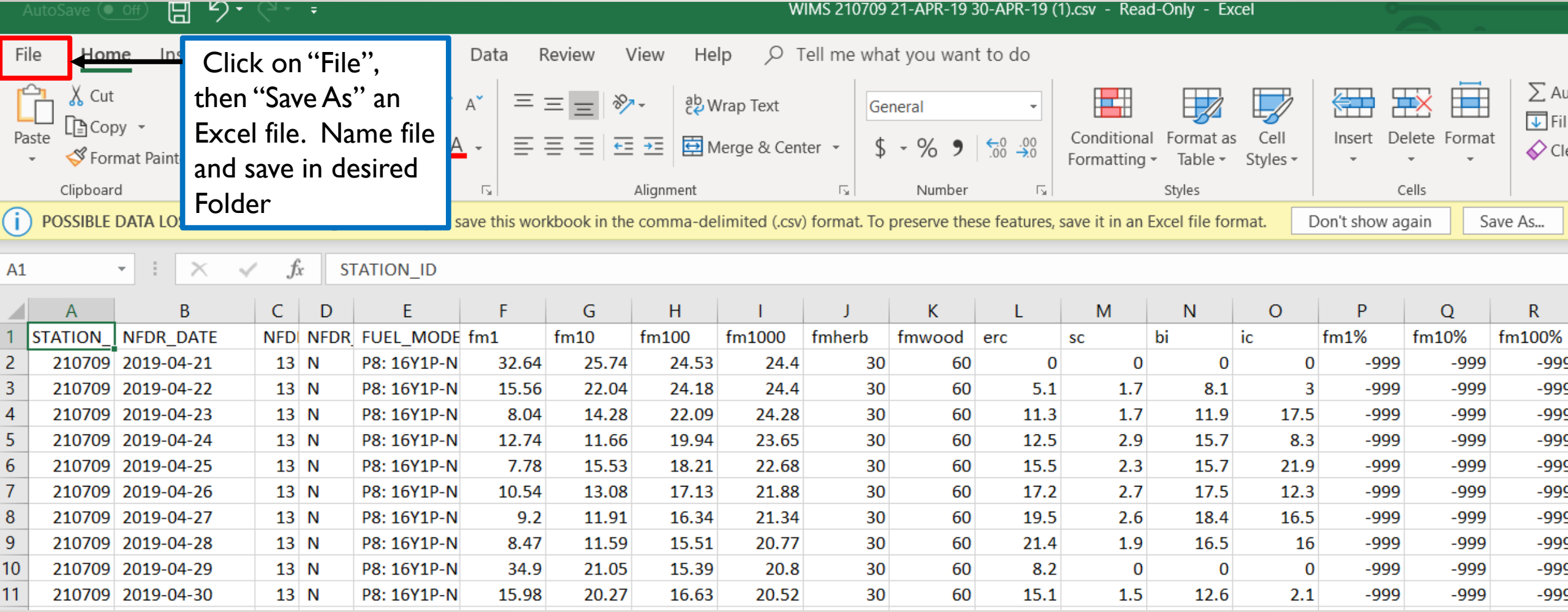
EXPORT AND SAVE FUEL MODEL INDICES/FUEL MOISTURE OUTPUTS



OPEN THE .CSV FILE FOR SELECTED FUEL MODEL



SAVE THE FILE AS AN EXCEL FILE TO ARCHIVE/SHARE



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	STATION_	NFDR_DATE	NFDI	NFDR_	FUEL_MODE	fm1	fm10	fm100	fm1000	fmherb	fmwood	erc	sc	bi	ic	fm1%	fm10%	fm100%
2	210709	2019-04-21	13	N	P8: 16Y1P-N	32.64	25.74	24.53	24.4	30	60	0	0	0	0	-999	-999	-999
3	210709	2019-04-22	13	N	P8: 16Y1P-N	15.56	22.04	24.18	24.4	30	60	5.1	1.7	8.1	3	-999	-999	-999
4	210709	2019-04-23	13	N	P8: 16Y1P-N	8.04	14.28	22.09	24.28	30	60	11.3	1.7	11.9	17.5	-999	-999	-999
5	210709	2019-04-24	13	N	P8: 16Y1P-N	12.74	11.66	19.94	23.65	30	60	12.5	2.9	15.7	8.3	-999	-999	-999
6	210709	2019-04-25	13	N	P8: 16Y1P-N	7.78	15.53	18.21	22.68	30	60	15.5	2.3	15.7	21.9	-999	-999	-999
7	210709	2019-04-26	13	N	P8: 16Y1P-N	10.54	13.08	17.13	21.88	30	60	17.2	2.7	17.5	12.3	-999	-999	-999
8	210709	2019-04-27	13	N	P8: 16Y1P-N	9.2	11.91	16.34	21.34	30	60	19.5	2.6	18.4	16.5	-999	-999	-999
9	210709	2019-04-28	13	N	P8: 16Y1P-N	8.47	11.59	15.51	20.77	30	60	21.4	1.9	16.5	16	-999	-999	-999
10	210709	2019-04-29	13	N	P8: 16Y1P-N	34.9	21.05	15.39	20.8	30	60	8.2	0	0	0	-999	-999	-999
11	210709	2019-04-30	13	N	P8: 16Y1P-N	15.98	20.27	16.63	20.52	30	60	15.1	1.5	12.6	2.1	-999	-999	-999

ADDITIONAL REFERENCE DOCUMENTS
(CLICK ON LINK TO OPEN DOCUMENT)

NFDRS 2016 Evaluation (doc) https://drive.google.com/open?id=1hCtTuRC27OADgPq9tdFJolSlwX3TFnKK

NFDRS 2016 Evaluation (ppt) https://drive.google.com/open?id=13cL9TO8Q8tDJbiSBZqn_VrxNKamTCz9p

Lesson-6-Setting up NFDRS 2016 in WIMS https://drive.google.com/open?id=1doL_W9Bqneut7Q4kSZAopxl_B-KCHYaA

All FDRAs BI-FM-Y graph means https://drive.google.com/open?id=1T7IUSeEz_FBvXQZrJRkiVAV2_oC6r7Eb

ERC-BI comparison charts https://drive.google.com/open?id=1JLHB6vHpuBI6L4EE2x7XaWsep2hhIn4B

Rays Valley Comparison https://drive.google.com/open?id=1ryL3WHD5K7sU6UyNqfR0x0RtQxvOmOhV

SEZ 2-week hourly analysis https://drive.google.com/open?id=1gdlZw49Ik_JRjX1RCRvKBQEOdLCrN88V

FOR FURTHER ASSISTANCE PLEASE CONTACT EASTERN AREA NFDRS2016 LEADERSHIP TEAM MEMBERS

Compact Area	Representatives (Click on Name to Email)
Great Lakes	BJ Glesener, Joe Alyea, Cory Henry, Eric Martin, Keith Murphy
Northeast	Ray Parrish, Joe Mints, Pete To
Mid-Atlantic	Tomas Liogys, Steve Maurer, John Ashcraft, Brian Pfister
Big Rivers	Bennie Terrell, Scott Crist, Mary Ellen Whitenack

EA Contacts: Steve Marien, EA Fire Weather Program Manager, 651-293-8446, Stephen_Marien@nps.gov, or Raymond Parrish, Fire Planning/Budget 414-297-3348, raymond.j.parrish@usda.gov. NFDRS 2016 workshop course coordinator: Scott Swendsen, 414-297-1412, scott.swendsen@usda.gov