

XML Import Document For Developers





Department of Commerce



WASHINGTON STATE
HOUSING FINANCE
COMMISSION

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Recent Changes

- For each Site that exists in the import all records will be deleted from that Site and it will be loaded with the contents of the XML document.
- A new ReportYear top level element has been added. The export should populate the XML document with data that is current as of the end of the ReportYear value included.
- Added additional values to the WBAR_UTILITYALLOWANCESOURCE data type.

Potential Issues

- The valid values for the XML Type WBAR_UTILITYALLOWANCESOURCE have been updated and previous values may no longer be valid. The current values are listed below.
- The Project Name and Site Name in the system being exported from may not match the Project Name and Site Name in WBARS. A map may need to be made in the exporting application that contains the WBARS Project and Site Names. Alternately the Project and Site could be renamed in WBARS. If you would like this done, please contact one of the funders to see if this is possible
- When a Table1_Record has a WBAR_TransferToUnit included with this WBAR_TransferToUnit is referencing another record in the import. This record must exist and have the same HeadOfHouseholdFullName as the Table1_Record with the TransferToUnit. The referenced record must also have the same MoveInDate as the TransferToUnit record. If these requirements are not met the transfer will not pass validation.
- There cannot be duplicate records, or the records will be seen as two households occupying the unit at the same time.
- A household cannot have a move in if there is a record with an earlier move in date that does not have a move out date.

Current Valid WBAR_UtilityAllowanceSource Values (In XML Schema)

- Energy Consumption Model
- Energy Consumption Model (2)
- Energy Consumption Model (3)
- HUD Regulated Properties
- HUD Utility Schedule Model
- Local Utility Company Estimate
- Local Utility Company Estimate (2)
- Local Utility Company Estimate (3)
- Owner Estimate, Actual Usage (2)
- Owner Estimate, Actual Usage (3)
- Owner Estimate, Actual Usage Data
- Owner Estimate, Similar Buildings
- Owner Estimate, Similar Buildings (2)
- Owner Estimate, Similar Buildings (3)
- Owner Pays all Utilities
- Public Housing Authority (S8) (2)
- Public Housing Authority (S8) (3)
- Public Housing Authority (Section 8)
- Rural Housing Service (RD)

WBARS Utility Allowance Descriptions

For a full description of common Utility Allowance Types, please go to the Commission's website Tax Credit Compliance Procedures Manual, Page 2-14, Utility Allowances, and for explanation of additional options see Appendix "O" at:

http://www.wshfc.org/managers/ManualTaxCredit/290_AppendixOUtilityAllowanceProcedures.pdf.

There are nine different possible types of utility allowances. We recognize that some projects may have two or more types of estimates for the same Site or even in the same Building. For this reason, some of the types listed below allow for up to three different estimates for the same Utility Estimate or Type.

- Energy Consumption Model: use this for the first ECM for a Building or Site, approved in advance by the Commission.
- Energy Consumption Model (2): use this for the second ECM for a Building or Site in the same Project.
- Energy Consumption Model (3): use this for the third ECM for a Building or Site in the same Project.
- HUD Regulated Properties: use this type if the property is regulated by HUD and HUD issues annual allowances for the property. If used, this applies to the entire building.
- HUD Utility Schedule Model: use this for a HUSM, approved in advance by the Commission.
- Local Utility Company Estimate: use this for the first LUCE for a Building or Site, approved in advance by the Commission.
- Local Utility Company Estimate (2): use this for the second LUCE for a Building or Site in the same Project.
- Local Utility Company Estimate (3): use this for the third LUCE for a Building or Site in the same Project.
- Owner Estimate, Actual Usage (2): use this for the second OEAU for a Building or Site in the same Project.

- Owner Estimate, Actual Usage (3): use this for the third OEAU for a Building or Site in the same Project.
- Owner Estimate, Actual Usage Data use this for the first OEAU for a Building or Site in the same Project, approved in advance by the Commission.
- Owner Estimate, Similar Buildings: use this for the first OESB for a Building or Site in the same Project, approved in advance by the Commission.
- Owner Estimate, Similar Buildings (2): use this for the second OESB for a Building or Site in the same Project.
- Owner Estimate, Similar Buildings (3): use this for the third OESB for a Building or Site in the same Project.
- Owner Pays all Utilities: use this type if the owner pays all utilities for the Building or Site in the Project.
- Public Housing Authority (S8) (2): use this for the second type of Section 8 allowance for a Building or Site in the same Project.
- Public Housing Authority (S8) (3): use this for the third type of Section 8 allowance for a Building or Site in the same Project.
- **Public Housing Authority (Section 8): use this for the first type of Section 8 allowance for a Building or Site in the same Project. This is the most common allowance.**
- Rural Housing Service (RD): use this for any units with Rural Housing Assistance. If used, this applies to the entire building.

Note: If you have the same allowances for all or several buildings in a Site, you will soon be able to enter those once on the Global Utility Allowance Configuration for Sites and Buildings, on the Site and Buildings page in WBARS.

XML Schema

The current XML Schema can be downloaded from the following link:

https://www.wbars.com/XML_Schema/WBAR_Table1_Import.xsd

The Import Process

What is XML Import?

XML stores data in plain text format, the storage is independent of your platform and your data can be exported, imported, or simply moved much easier. The XML Data import in the WBARS is where you can import the data's of Table 1 into the system.


Who can do the XML Import?

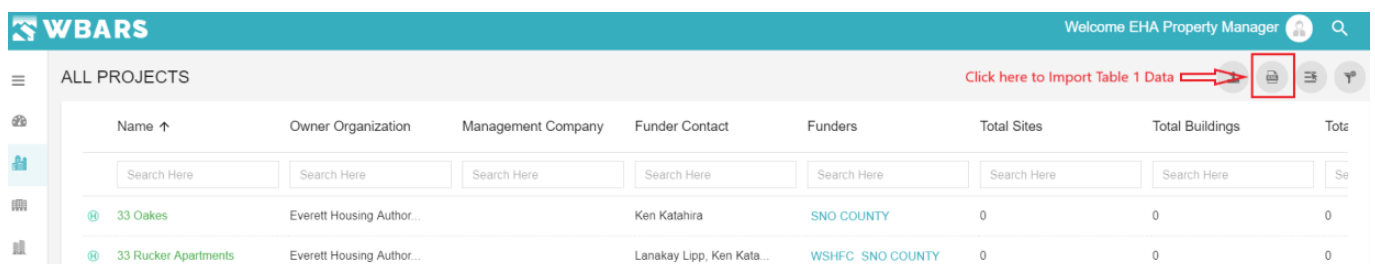
The WBARS system has organizations and contacts. Contacts are the members associated with only one organization. In order to be able to import, the contact must be a **Non-Funder** User of the project associated organization and only the stage level users can import the table details

For Example – If the report stage is at **Property Manager** level then only, they can import

How to do the XML Import?

To Import the table 1 details you will click on the “**Projects**” icon  under the “**Menu**”  where you can see the “**Import Table 1**” icon  .

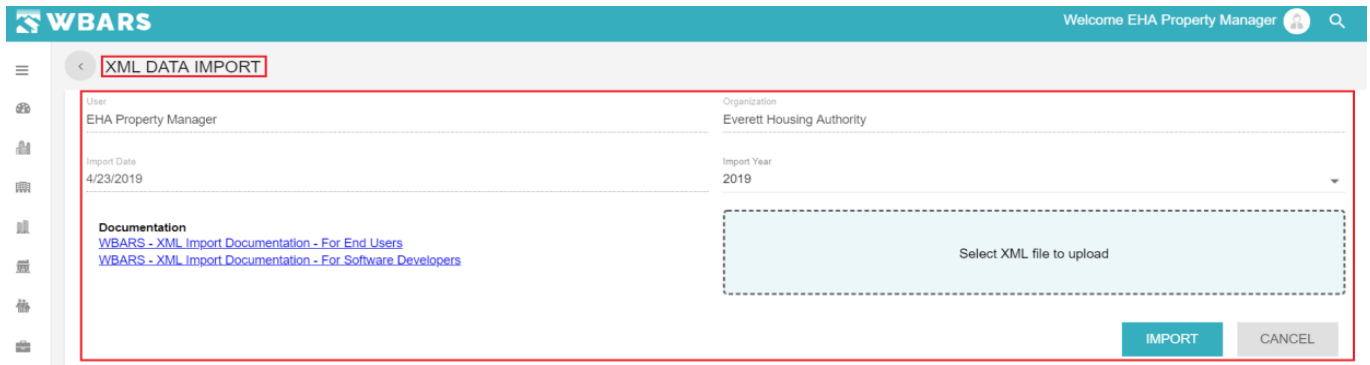
The Location of the “**Import Table 1**”  is highlighted and shown in the image below. Just click on that icon to get started with your XML import.



The screenshot shows the WBARS interface. At the top, there is a teal header with the WBARS logo on the left and 'Welcome EHA Property Manager' on the right. Below the header, there is a navigation bar with a 'Menu' icon on the left and a search icon on the right. The main content area is titled 'ALL PROJECTS' and contains a table with columns: Name, Owner Organization, Management Company, Funder Contact, Funders, Total Sites, Total Buildings, and Total. The table has two rows of data. In the top right corner of the main content area, there is a red arrow pointing to a red box that highlights the 'Import Table 1' icon.

Name ↑	Owner Organization	Management Company	Funder Contact	Funders	Total Sites	Total Buildings	Total
33 Oakes	Everett Housing Author...		Ken Katahira	SNO COUNTY	0	0	0
33 Rucker Apartments	Everett Housing Author...		Lanakay Lipp, Ken Kata...	WSHFC SNO COUNTY	0	0	0

Once you click on the “**Import Table 1**” icon the “**XML DATA IMPORT**” Page will be show as in the image below



The “**XML DATA IMPORT**” Page has the following fields,

- User
- Organization
- Import Date
- Import Year
- Documentation
- Select XML File to upload
- Import
- Cancel

User

User
EHA Property Manager

The User details will be shown here, and this is a non - editable field where your user name will be shown in this field.

Organization

Organization

Everett Housing Authority

The Organization name to which the user belongs will be shown here and this is a non - editable field.

Import Date

Import Date

4/23/2019

The date when you are performing the import will be shown here

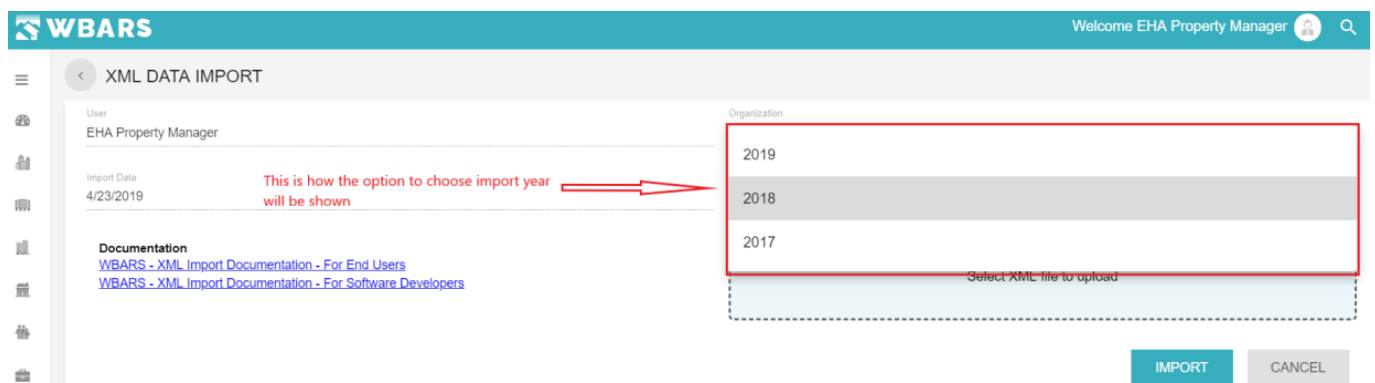
Import Year

Import Year

2018

The Import year is a dropdown field where you will select the year of the data which you will import. Once you click on the field the field gets highlighted where you will show with the list of years where you can choose the required year.

The screenshot of the dropdown when you click on the import year is shown below,



Only last three year will be shown to select from the dropdown list as shown in the image above.

Documentation

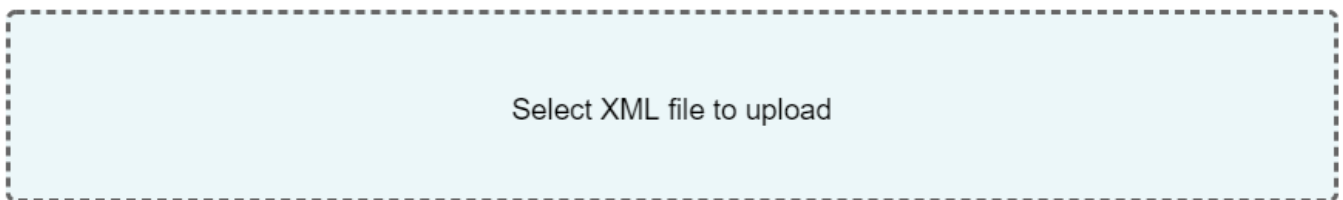
Documentation

[WBARS - XML Import Documentation - For End Users](#)

[WBARS - XML Import Documentation - For Software Developers](#)

The Documentation field shows the links of the XML import documents for both users and the developers where you can click on the link to view the document.

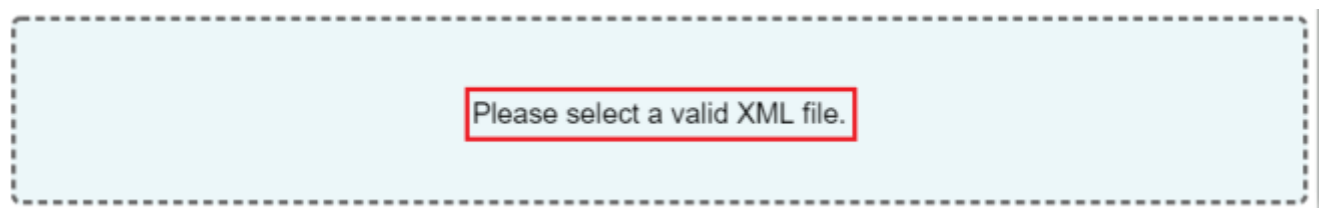
Select XML File to upload



Once you click on the field “**Select XML File to upload**” it opens your pc storage from where you can browse and select the **XML** file that needs to be uploaded.

Validation 1

If you select any other file format other than XML you will be shown with a validation message as shown in the image below,



Validation 2

The “**Import Year**” which you select should match the XML file report year. In case if you select a different Import year and XML report year you will shown with a validation message as shown in the Image below,

WBARS Welcome EHA Property Manager

XML DATA IMPORT

User: EHA Property Manager Organization: Everett Housing Authority

Import Date: 4/23/2019 Import Year: 2017

Documentation
[WBARS - XML Import Documentation - For End Users](#)
[WBARS - XML Import Documentation - For Software Developers](#)

Untitled Diagram.xml

IMPORT **CANCEL**

This is the message shown if you select a different "Import Year" and the XML file has a different report year

Report year selected (2017) does not match with the ReportYear (0) in XML file

Import / Cancel



Once you choose the "Import Year" and selected the XML File to upload you can click on the "IMPORT" button to import the XML file.

In case if you want to exit the process, you can click on "CANCEL" button where you will be taken back to "ALL PROJECTS" page.

Import Failure

WBARS Welcome EHA Property Manager

XML DATA IMPORT

User: EHA Property Manager Organization: Everett Housing Authority

Import Date: 4/23/2019 Import Year: 2019

Documentation
[WBARS - XML Import Documentation - For End Users](#)
[WBARS - XML Import Documentation - For Software Developers](#)

UAT XML .xml

IMPORT **CANCEL**

This is how the error is shown if the import is failed

WBARS XML Import Error Results for Import: 18428_table1_import_1556013103608.xml

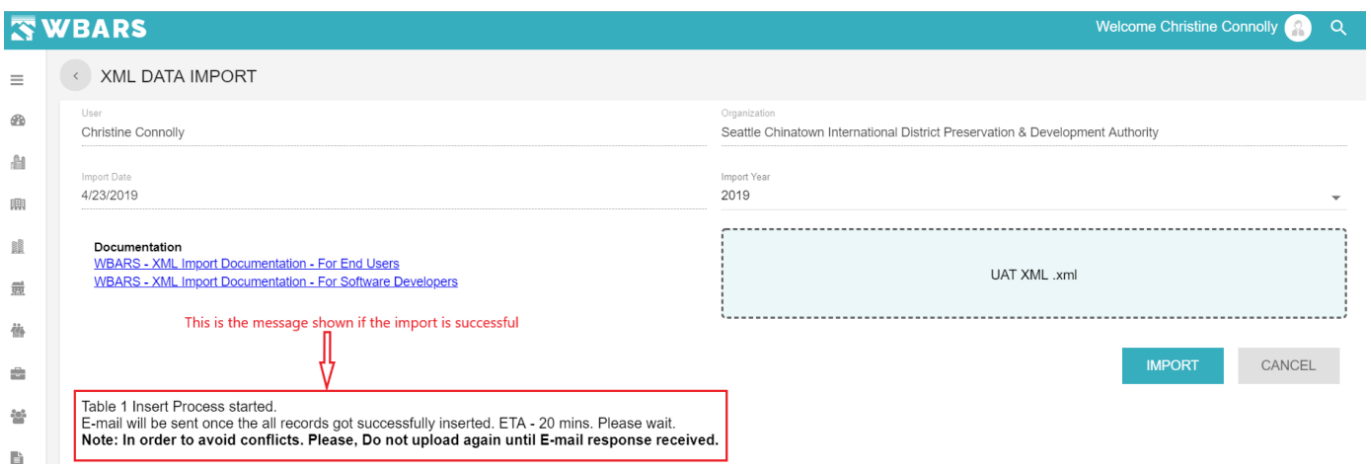
User: EHA Property Manager
 Organization: Everett Housing Authority
 Import Date: 4/23/2019
 Error Records / Total Records: 47 / 47
 Error Type: Project / Site / Building / Unit - Errors

Building	Unit	Move-In Date	Household Name	Message
WA-96-00093	102	6/4/2005	Vern Westfall	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	201	10/5/2004	Genet Tefera	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	202	10/4/2015	Zhihui Yu	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	203	8/4/2012	SuHuan Wen	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	204	8/2/2016	Jin Deng	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	205	2/6/2016	Mui Du	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.
WA-96-00093	206	5/6/2018	Su Huang	The logged on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project.

If the import is a failure you will be shown with the error records and the error type details. For the above scenario the error type is “The logged-on Contact must be in the Owner Organization of all Project for all Sites being imported or must be the selected Project Property Manager or On-Site Manager Contact for each Site being imported for the Project”

If there are errors on the import you may need to work with your vendor or a funding organization to find out how to get the issue fixed.

Import Success



The screenshot shows the 'XML DATA IMPORT' page in the WBARS system. The user is Christine Connolly, and the organization is Seattle Chinatown International District Preservation & Development Authority. The import date is 4/23/2019, and the import year is 2019. There are links for documentation: 'WBARS - XML Import Documentation - For End Users' and 'WBARS - XML Import Documentation - For Software Developers'. A red arrow points to a message box that says: 'Table 1 Insert Process started. E-mail will be sent once the all records got successfully inserted. ETA - 20 mins. Please wait. Note: In order to avoid conflicts. Please, Do not upload again until E-mail response received.' There is also a text box for 'UAT XML .xml' and 'IMPORT' and 'CANCEL' buttons.

Once the import is successful a message will be shown as in the image above and you will sent an Email once all the records get inserted successfully.

Validation and Error Logging

If the XML document doesn't pass schema validation, then the errors are displayed on the screen and are not saved. If the XML document passes schema validation and is processed, then any records that are not able to be imported are logged with the results and the reason displayed on the screen. An email is also sent to the user with an HTML attachment containing the results. This attachment can be forwarded for technical support.

Optional Fields and Null Values

Optional Simple Types (entries with one value) can either be not included or must be set to null explicitly if included. For instance if there is no comment the Comment entry can either be left out or included with `xsi:nil="true"` such as the following.

```
<Comment xsi:nil="true"></Comment>
```

It cannot be included and left blank or the XML schema validation will fail. The following are not valid.

```
<Comment></Comment>
```

```
<Comment/>
```

The Complex Type **WBAR_TransferToUnit** must either be included with all required fields included or be left out if there is no transfer. It cannot be included and set to "nil".

XML Schema Validation

The first step of the XML import process will validate the uploaded XML file against the schema listed above. If there are any issues with the document these will be logged, and the results will be displayed on the page with a unique URL. An email will be sent with a link to this unique URL. This link can be returned to later or provided to another person to help resolve any issues. A user must be logged on to WBARS to view the results.

XML Process Validation

If the document being imported passes XML validation against the XML schema it is processed, and data is imported. During the import process each record is validated against import business rules and if that record doesn't pass validation and error is logged, it is skipped, and the next record is processed. Once the import is complete any validation messages are displayed on the page with a unique URL. An email will be sent with a link to this unique URL. This link can be returned to later or provided to another person to help resolve any issues. A user must be logged on to WBARS to view the results. Valid records are imported and records not passing validation are skipped.

XML Imports and Existing Data

All existing Table1 records for a Site that is included in an import will be deleted and the site will be loaded with the Table1 data included in the XML Import.

Transfers

When adding a WBAR_TransferToUnit to a Table1_Record the transfer meet the following requirements.

- The transfer must be to another unit in the same Site. (It can be a different building)
- The HeadOfHouseholdFullName must be the same in the Table1_Record being transferred to as in the Table1_Record being transferred from which is the one with the WBAR_TransferToUnit.
- The MoveInDate in the WBAR_TransferToUnit must be the same as the MoveInDate in the Table1_Record being transferred to. This is used to identify the Unit being transferred to.

XML Process Validation Rules

The following are the conditions that need to be met for a record to be valid.

The ReportYear Element

The top-level element ReportYear indicates the year of the exported data. The status of each Table1_Record included in the XML document should be as of the end of the year where the year is equal to the value of the ReportYear element or as of date of export if the year is not completed yet. If the current year were 2010 and the ReportYear was set to 2009 then the information exported should be what is current as of the end of the year of 2009. This will allow users to export and import data for the previous year and submit when they are well into the current year.

If any of the records have values for any of the following in a year greater than the ReportYear the whole import will fail:

- RecentRecertificationDate
- PreviousRecertificationDate
- MoveInDate
- MoveOutDate

Users will be provided a dropdown to choose the year for the import. The chosen year must match the ReportYear value in the XML Import. If any included site has been submitted for the included ReportYear then the import will fail with a validation message indicating that to import for that year the site may need to be submitted or un-submitted. If any included site has an earlier year that has not been submitted then the import will fail with a validation message indicating that to import for that year the site may need to be submitted or un-submitted.

The following keys must find a match in the WBARS system

- “ProjectName” must match an existing project
- “SiteName” must match an existing site that is in the project.
- “BuildingName” must match an existing building in the site.
- “UnitName” must match an existing unit in the building.

Duplicate Projects and Sites Not Allowed

- The “ProjectName” must find an exact match in the WBARS system. If there are more than one projects with a matching name or alias then the import will fail. In this case contact support. Projects and/or aliases will need to be renamed until the project being imported to has a unique name.
- The “SiteName” must find an exact match within the projects. It is unlikely there would be two sites with the same name but if so contact support.

- The “BuildingName” must find an exact match within the site. It is unlikely there would be two buildings with the same name but if so contact support.
- The “UnitName” must find an exact match within the building. It is unlikely there would be two units with the same name but if so contact support.

Invalid Values

- For each record “MoveOutDate”, if included, must be greater than “MoveInDate”
- The span of “MoveInDate” and “MoveOutDate” must not overlap with another record in the XML import document for the same unit.
- If there is a record in the database or XML Document that has a “MoveInDate” that is greater than the “MoveInDate” for the record being imported then the record being imported must have a “MoveOutDate” and must not overlap with another residency period.

Conditionally Required Fields

- If “IsHomeProgramUnit” is yes (True) then “HOMEUnitOccupied” is required and must have a value.
- If “IsHomeProgramUnit” is yes (True) then “HeadofHouseholdRace” is required and must have a value.
- If “IsHomeProgramUnit” is yes (True) then “HeadofHouseholdRace” is required and must have a value.
- If “IsHomeProgramUnit” is yes (True) then “HeadofHouseholdEthnicity” is required and is required and must have a value.
- If “IsHomeProgramUnit” is yes (True) then “HouseholdType” is required and must have a value.
- If “SubsidyAmount” has a value then “RentalAssistanceSource” is required and must have a value.
- If “RentalAssistanceSource” has a value then “SubsidyAmount” is required and must have a value.

Contacts

If you have questions or need help with the XML import process you can contact one of the following people.

- lily@intellectyx.com
- tracy@intellectyx.com

Projects, Sites and Buildings

All Projects in the WBARS system have at least one Site and one Building. For most projects, the Project name and Site name will be identical. If a Project has more than one Site, then the Site names will typically be different than the Project name. A Site is a physical location that contains one or more buildings. Projects can have one or multiple Sites and Sites can have one or more Buildings. Different Public Funders may monitor different Sites in a Project. To allow funders to set up validation for their contractual requirements and enter unique Set-Aside requirements; and to allow the entry of physical address differences, Sites were created in WBARS.