



WRMIS User Manual

IRRIGATION NETWORK

Development of Water Resources Management Information System (WRMIS) and
Decision Support System (DSS) for Efficient Irrigation Water Management in Punjab

Version 1.0

NESPAK

23-Aug-16







Revision History

Version	Date	By	Summary of Changes
1.0	23-Aug-16	NESPAK	Initial Draft





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1. Irrigation Network- Reference Data

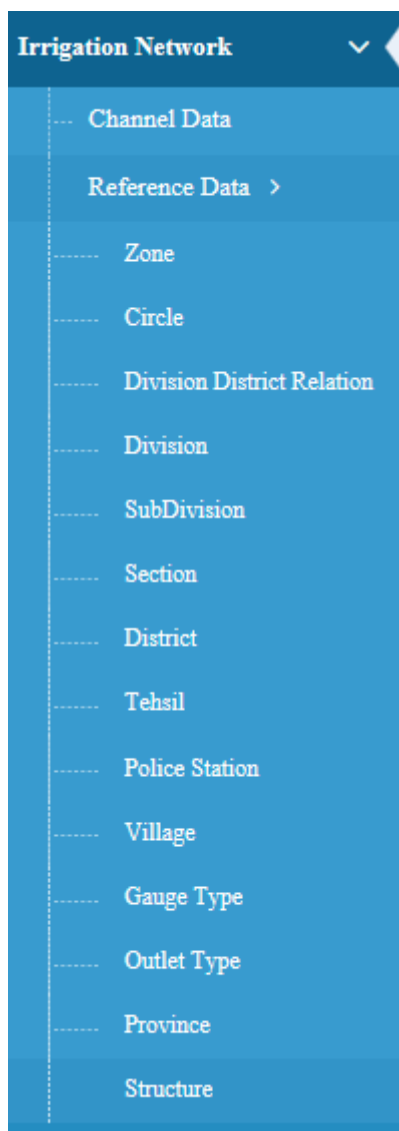
This module provides an interface to add, edit, maintain and delete the complete Irrigation Network which constitutes Barrages, head-works and channels. Channel include main canals, branch canals, distributaries, minor, sub-minor along with all the gauges such as head gauge, tail gauge, and critical gauges etc. In order to perform certain operations of Irrigation Department especially Channel Operations such as placing indents, discharge measurement, issuance of daily gauge slip, barrage/headwork data, cut/breach, water theft, outlet management etc., MIS System needs a complete data representation of Irrigation Network in a manageable, understandable and comprehensive way. For that purpose, a complete Irrigation Network is designed containing basic data for Channels, the Irrigation Boundaries, Administrative Boundaries of Channels & Outlets, the Gauges Information, the Discharge Tables for each gauge, and relationship of each channel with other canal such as Parent Channels, Off takes, and Feeders for each canal as well as the detail information about Head works/ Barrages

Business User: Administrator

Any other user can access “Irrigation Network” based on assigned rights from Roles and Rights (User Administration)

Pre-Requisite:

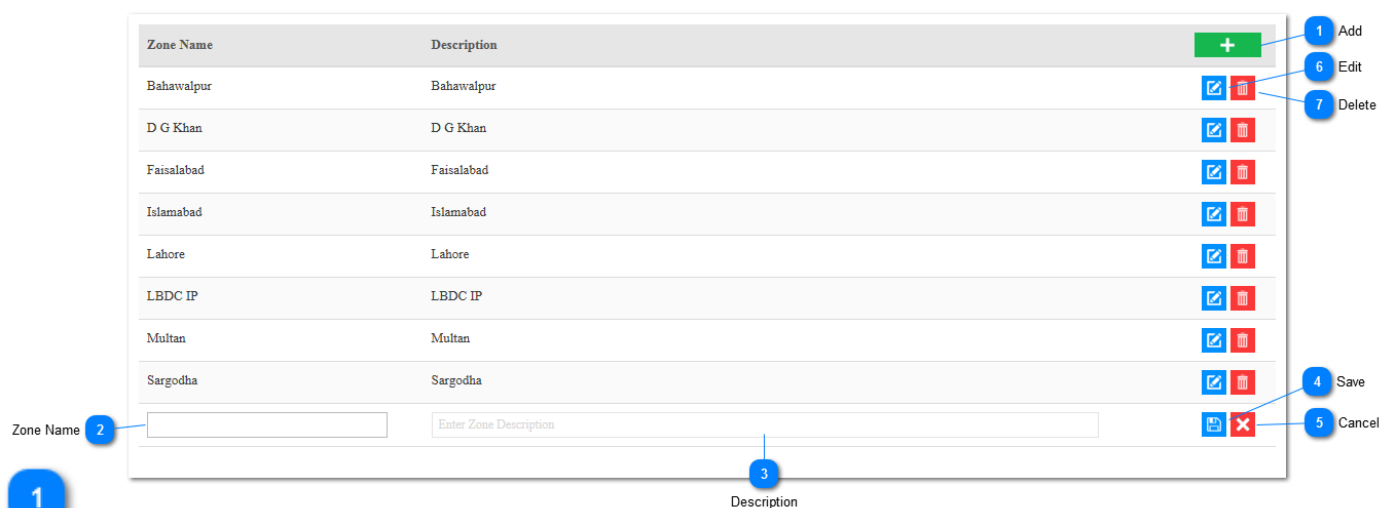
Irrigation Network Role and Rights should be assigned to respective user correctly.



1.1 Reference Data: Zone

Already created Zone are listed down in a tabular form and user can edit, view and delete already created Zone and can also add new Zones.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Zone



1
Add



- Click on <Add> button adds a new row into the table for adding a new record.

2
Zone Name

- User enter Zone Name into Zone Name test field.
- Zone Name is mandatory field for adding a new Zone.

3
Description

- Enter Description for zone name.

4
Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added zone into the Table

5

Cancel



- By clicking on the Cancel image, system moves the user to Zone page without saving the record.

6

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

7

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table

1.2 Circle

User can add, edit, view and delete already created circle.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Circle

Zone 1

Circle Name 3

Description 4

2 Add

7 Edit

8 Delete

5 Save

6 Cancel

Circle Name	Description
Bahawalnagar	Bahawalnagar
Bahawalpur	Bahawalpur
Development Circle BWP	Development Circle BWP
Rahimyar Khan	Rahimyar Khan

Adding a new circle

1

Zone

- User selects a zone from zone dropdown.
- All the circles associated with selected zone will be populated into tabular form.

2

Add

- Click on <Add> button adds a new row into the table for adding a new record.

3

Circle Name

- User enters the circle name into Circle Name text field.
- Circle Name is mandatory field for adding a new Circle.

4

Description

Enter Circle Description

- User enters the description about the added circle into Description text field.

5

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

6

Cancel



- By clicking on the Cancel image, system moves the user to Zone page without saving the record.

7

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

8

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.3 Division

User can add, edit, view and delete Divisions against already created Circles. .How to Access: Main Menu -> Irrigation Network - > Reference Data->Division

The screenshot shows the 'Division' management interface. At the top, there are two dropdown menus: 'Zone' (labeled 1) and 'Circle' (labeled 2). Below them is a table with columns 'Division Name', 'Domain', and 'Description'. The table contains four rows: 'Development Bahawalnagar', 'Fordwah', 'Hakra', and 'Sadiqia'. To the right of the table are buttons for '+', 'Edit', and 'Delete' (labeled 3, 9, and 10 respectively). Below the table is a form to add a new division, with fields for 'Division Name' (labeled 4), 'Domain' (labeled 5), and 'Description' (labeled 6). At the bottom right are 'Save' (labeled 7) and 'Cancel' (labeled 8) buttons.

Add a new Division

1 Zone

The screenshot shows the 'Zone' dropdown menu with 'Bahawalpur' selected.

- User selects a zone from zone dropdown.
- All the circles associated with selected zone will be populated into Circle dropdown.

2 Circle

The screenshot shows the 'Circle' dropdown menu with 'Bahawalnagar' selected.

- User selects a circle into 'Circle' dropdown.
- All the Divisions associated with the above Circle will be populated into a table.

3 Add



- Click on <Add> button adds a new row into the table for adding a new record.

4 Division Name

- User enters the name of new Division into Division Name text field.
- Division Name is mandatory field for adding a new Division

5

Domain

- User selects the domain from the Domain dropdown.
- Selecting Domain is mandatory field for adding a new Division.

6

Description

- User enters description for the new division into Description Text field.

7

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

8

Cancel



- By clicking on the Cancel image, system moves the user to Division page without saving the record.

9

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

10

Delete

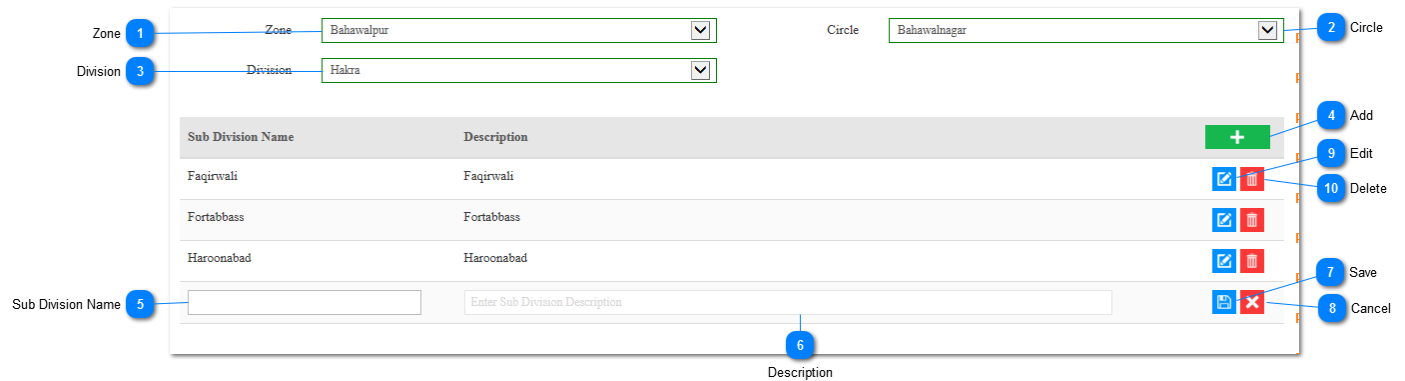


- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.4 Sub Division

User can add, edit, view and delete the Sub Divisions within a Division.

How to Access: Main Menu -> Irrigation Network -> Reference Data->Sub Division



Sub Division Name	Description
Faqirwali	Faqirwali
Fortabbass	Fortabbass
Haroonabad	Haroonabad

Adding a new Sub Division

1 Zone

- User selects a zone from zone dropdown.
- All the circles associated with selected zone will be populated into Circle dropdown.

2 Circle

- User selects a circle into 'Circle' dropdown.
- All the Divisions associated with the above Circle will be populated into Division dropdown.

3 Division

- User selects a division into 'Division' dropdown.
- All the Divisions associated with the above Circle will be populated into a Table.

4

Add



- Click on <Add> button adds a new row into the table for adding a new record.

5

Sub Division Name

- User enters the name of new sub division into 'Sub Division' text field.
- Sub Division Name is mandatory field for adding a new Sub Division.

6

Description

- User enters the description of the new sub division into 'Description' text field.

7

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

8

Cancel



- By clicking on the Cancel image, system moves the user to Sub Division page without saving the record.

9

Edit





- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

10

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.



1.5 Section

User can add, edit, view and delete already created Section.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Section

The screenshot displays the 'Section' management interface. At the top, there are four dropdown menus: 'Zone' (selected: Bahawalpur), 'Circle' (selected: Bahawalnagar), 'Division' (selected: Hakra), and 'Sub Division' (selected: Faquirwali). Below these is a table with two columns: 'Section Name' and 'Description'. The table lists four existing sections: Faquirwali, Khichirwala, Mianwala Toba, and Yateemwala. To the right of the table are three icons: a green plus sign for 'Add', a blue pencil for 'Edit', and a red trash can for 'Delete'. At the bottom, there are input fields for 'Section Name' and 'Description'. To the right of these fields are two icons: a blue floppy disk for 'Save' and a red X for 'Cancel'. Numbered callouts (1-11) point to various elements: 1. Zone dropdown, 2. Circle dropdown, 3. Division dropdown, 4. Sub Division dropdown, 5. Add button, 6. Section Name input field, 7. Description input field, 8. Save button, 9. Cancel button, 10. Edit icon, 11. Delete icon.

Adding a new Section

1

Zone

- User selects a zone from zone dropdown.
- All the circles associated with selected zone will be populated into Circle dropdown.

2

Circle

- User selects a circle into 'Circle' dropdown.
- All the Divisions associated with the above Circle will be populated into Division dropdown.

3

Division

- User selects a division into 'Division' dropdown.
- All the sub divisions associated with the above Division will be populated into 'Sub Division' dropdown.

4

Sub Division

- User selects a division into 'Sub Division' dropdown.
- All the sections associated with the above sub division will be populated in a table.

5

Add



- Click on <Add> button adds a new row into the table for adding a new record.

6

Section Name

- User enters the name of new section into 'Section Name' text field.
- Section Name is mandatory field for adding a new Section.

7

Description

- User enters the description of the new section into 'Description' text field.

8

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

9

Cancel



- By clicking on the Cancel image, system moves the user to Section page without saving the record.

10

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

11

Delete

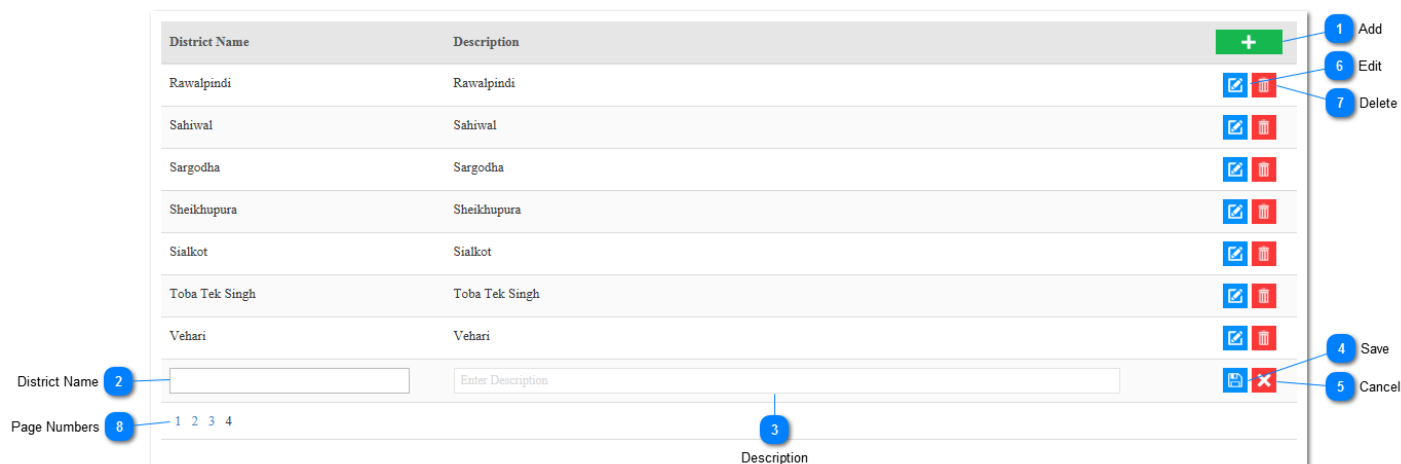


- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.6 District

User can add, edit, view and delete the District.

How to Access: Main Menu -> Irrigation Network - > Reference Data->District



District Name	Description	
Rawalpindi	Rawalpindi	[Add] [Edit] [Delete]
Sahiwal	Sahiwal	[Add] [Edit] [Delete]
Sargodha	Sargodha	[Add] [Edit] [Delete]
Sheikhpura	Sheikhpura	[Add] [Edit] [Delete]
Sialkot	Sialkot	[Add] [Edit] [Delete]
Toba Tek Singh	Toba Tek Singh	[Add] [Edit] [Delete]
Vehari	Vehari	[Add] [Edit] [Delete]

District Name: Enter Description:

Page Numbers: 1 2 3 4

Save Cancel

Adding a new District

1

Add



- Click on <Add> button adds a new row into the table for adding a new record.

2

District Name

- User enters the name of new District into 'District Name' text field.
- District name is mandatory field for adding a new District.

3

Description

- User enters the description of the new district into 'Description' text field.

4

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

5

Cancel



- By clicking on the Cancel image, system moves the user to District page without saving the record.

6

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

7

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

8

Page Numbers

1 2 3 4

- Click on number to navigate to that specific page.
- System shows the record in alphabetical order



1.7 Division District Relation

User can associate/ un associate already created Districts with with already existed Divisions.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Division District Relationship





Division **1** Ahmedpur

Division Name **2** Attock

Is Associated **3**

District Name	Is Associated
Attock	<input type="checkbox"/>
Bahawalnager	<input type="checkbox"/>
Bahawalpur	<input checked="" type="checkbox"/>
Bhakker	<input type="checkbox"/>
Chakwal	<input type="checkbox"/>
Chiniot	<input type="checkbox"/>
D.G.Khan	<input type="checkbox"/>
Faisalabad	<input type="checkbox"/>
Gujranwala	<input type="checkbox"/>
Gujrat	<input type="checkbox"/>
Hafizabad	<input type="checkbox"/>
Jhang	<input type="checkbox"/>
Jhelum	<input type="checkbox"/>
Kasur	<input type="checkbox"/>
Khanewal	<input type="checkbox"/>
Khushab	<input type="checkbox"/>
Lahore	<input type="checkbox"/>
Layyah	<input type="checkbox"/>
Lodhran	<input type="checkbox"/>
M.B. DIN	<input type="checkbox"/>
Mianwali	<input type="checkbox"/>
Mirpur	<input type="checkbox"/>
Multan	<input type="checkbox"/>
Muzaffargarh	<input checked="" type="checkbox"/>
Nankana	<input type="checkbox"/>
Narowal	<input type="checkbox"/>
Okara	<input type="checkbox"/>
Pakpattan	<input type="checkbox"/>
Rahim Yar Khan	<input checked="" type="checkbox"/>
RajanPur	<input type="checkbox"/>
Rawalpindi	<input type="checkbox"/>
Sahiwal	<input type="checkbox"/>
Sargodha	<input type="checkbox"/>
Sheikhupura	<input type="checkbox"/>
Sialkot	<input type="checkbox"/>
Toba Tek Singh	<input type="checkbox"/>
Vehari	<input type="checkbox"/>

Save **4** Save Reset

Reset **5**

Assigning a District to a Division



1

Division

- System displays all the divisions into 'Division' dropdown.
- User selects a division into 'Division' dropdown.

2

District Name

Attock

- System shows the complete list of already created districts.

3

Is Associated

☐

- User check/uncheck 'Is Associated' check box to assign/un assign district with selected Division into 'Division' dropdown.

4

Save

Save

- Click on <Save> button, system verify all the changes.
- System saves the data into the database & displays a message "Records saved successfully".
- System displays newly assigned district as User selects the Division into 'Division' dropdown.

5

Reset

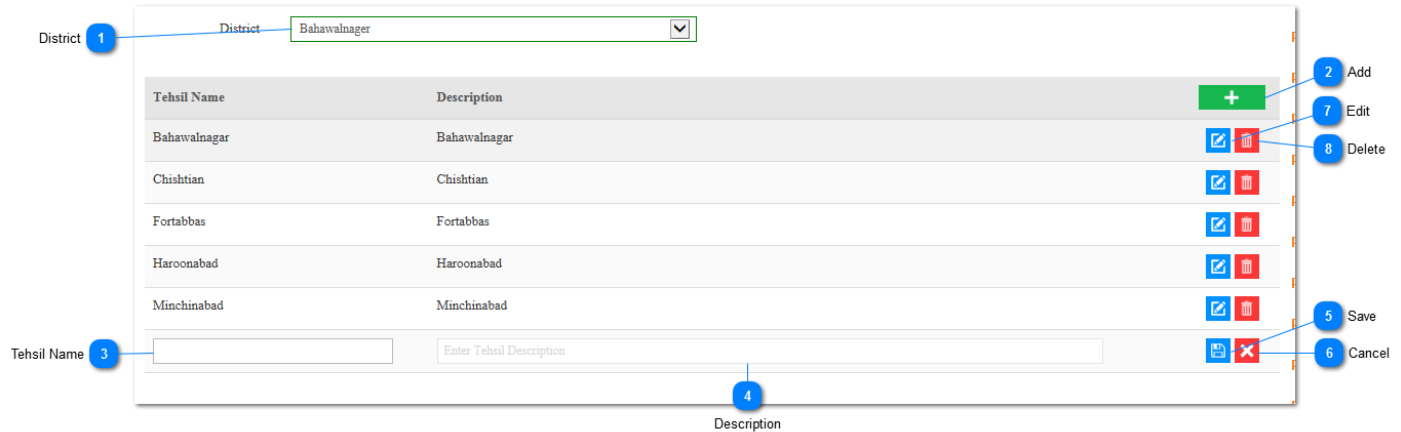
Reset

- Click on <Reset> button clears all the assigned districts against the specific Division.

1.8 Tehsil

User can, edit, view and delete already created Tehsil and can also add new Tehsils within already created Districts using this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Tehsil



Tehsil Name	Description	
Bahawalnager	Bahawalnager	[Edit] [Delete]
Chishtian	Chishtian	[Edit] [Delete]
Fortabbas	Fortabbas	[Edit] [Delete]
Haroonabad	Haroonabad	[Edit] [Delete]
Minchinabad	Minchinabad	[Edit] [Delete]

Adding a new Tehsil

1

District

- User selects a District from 'District' dropdown.
- System displays already created tehsils into a table.

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3

Tehsil Name

- User enters tehsil name into 'Tehsil Name' text field.
- Tehsil Name is mandatory field for adding a new Tehsil.

4

Description

Enter Tehsil Description

- User enters the description of new tehsil into 'Description' text field.

5

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table

6

Cancel



- By clicking on the Cancel image, system moves the user to Tehsil page without saving the record.

7

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

8

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.9 Police Station

User can add, edit, view and delete the Police Station against already created Tehsils.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Police Station

Police Station	Description
Bahawalnager	
Chishtian	
City Bahawalnager	
Dunga Bunga	
Madrasa	
Madrisa	
Sadar Bahawalnager	
Takhat Mahal	
Takhat Mohal	

Adding a new Police Station

1

District

- User selects a district into 'District' dropdown.
- System populates all the tehsils associated to selected district into 'Tehsil' dropdown.

2

Tehsil

- User selects a tehsil into 'tehsil' dropdown.
- All the police stations associated to the selected Tehsil populates in a table.

3

Add

- Click on <Add> button adds a new row into the table for adding a new record.

4

Police Station

- User enters the name of new Police Station into 'Police Station' text field.
- Police Station is mandatory field for adding a new Police Station.

5

Description

- User enters the description for new police station into 'Description' text field.

6

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

7

Cancel



- By clicking on the Cancel image, system moves the user to Police Station page without saving the record.

8

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

9

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.

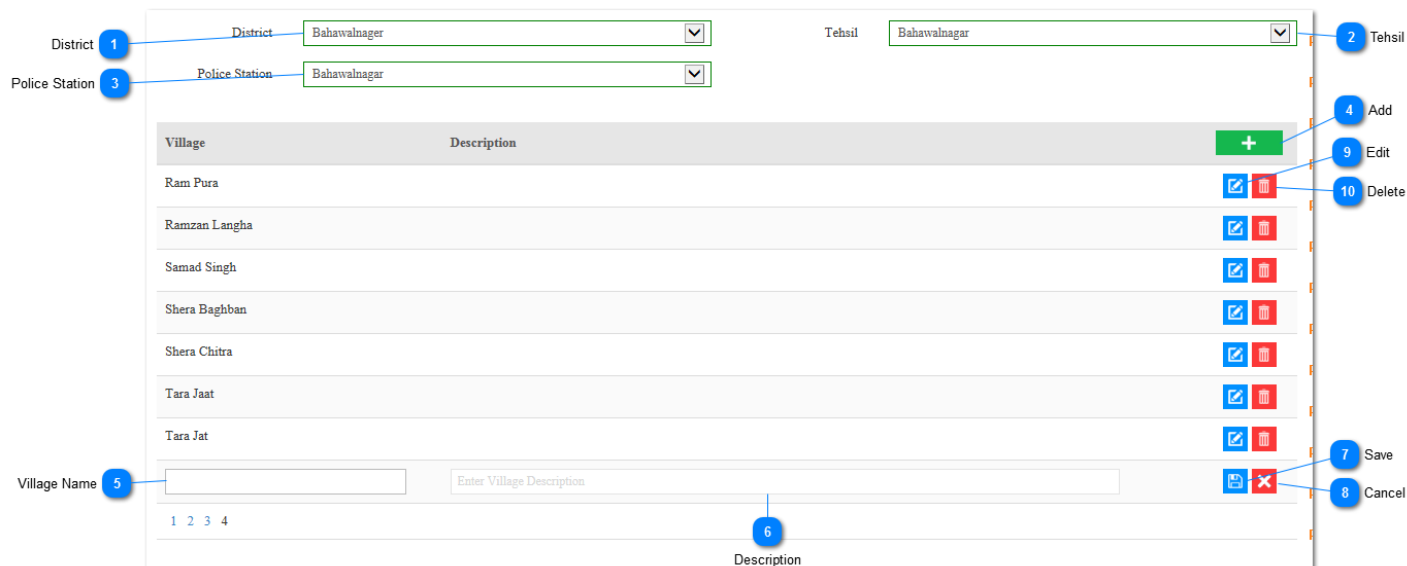


- System deletes the newly added record from the table.

1.10 Village

User can edit, view and delete already created Villages and can also add new Village through this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Village



Adding a new Village

- 1 District**

 - User selects a district into 'District' dropdown.
 - System populates all the tehsils associated to selected district into 'Tehsil' dropdown.

- 2 Tehsil**

 - User selects a tehsil into 'tehsil' dropdown.
 - All the police stations associated to the selected Tehsil populates into 'Police station dropdown'.

- 3 Police Station**

- User selects a police station into 'Police Station' dropdown.
- All the villages associated to the selected Police Station populates in a table.

4

Add



- Click on <Add> button adds a new row into the table for adding a new record.

5

Village Name

- User enters the name of new village into 'Village' text field.
- Village Name is mandatory field for adding a new Village.

6

Description

User enters the description of the new village into 'Description' text field.

7

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required field(s) has not been entered.
- System displays newly added record into the Table.

8

Cancel



- By clicking on the Cancel image, system moves the user to Village page without saving the record.

9

Edit



- Click on 'Edit' image to edit the existing record.



- System opens the record into editable form.

10

Delete



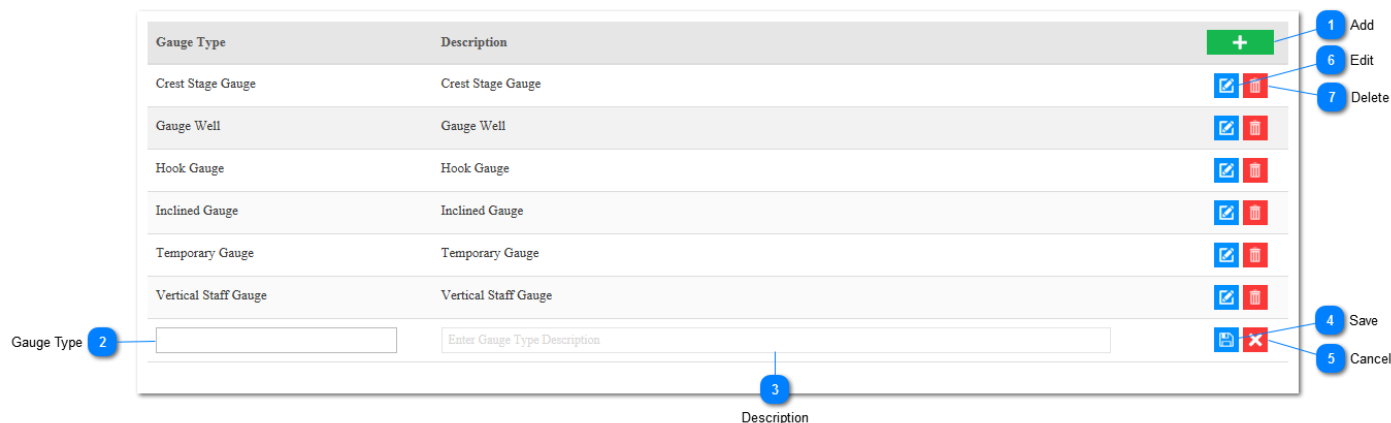
- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.



1.11 Gauge Type

User can add new Gauge Types and can also edit, view and delete already created Gauge type through this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Gauge Type



Adding a new Gauge Type

1 Add



- Click on <Add> button adds a new row into the table for adding a new record.

2 Gauge Type

- User enters the Gauge type into 'Gauge Type' text field.
- Gauge Type is mandatory field for adding a new Gauge Type.

3 Description

- User enters the description of the new gauge type into 'Description' text field.

4 Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

5

Cancel



- By clicking on the Cancel image, system moves the user to Gauge Type page without saving the record.

6

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

7

Delete

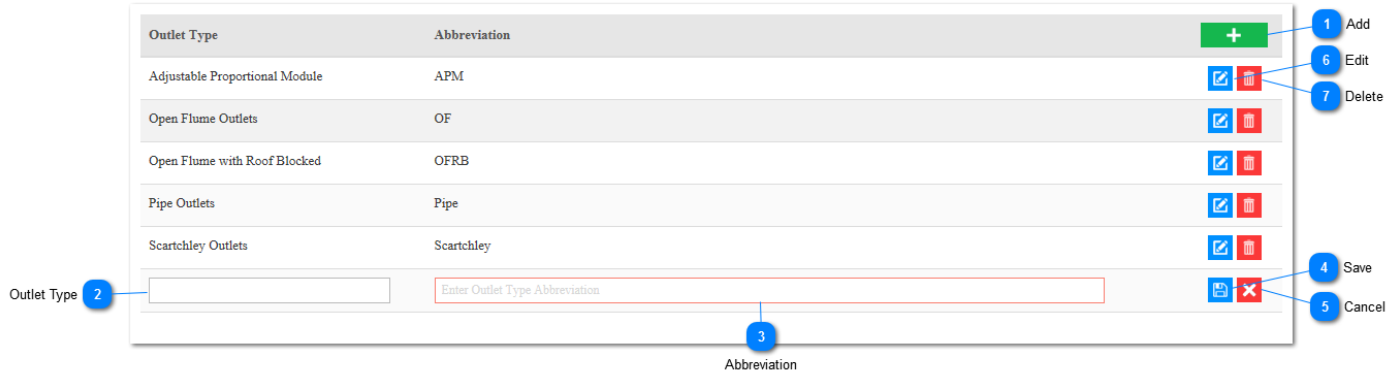


- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.12 Outlet Type

User can add new Outlet Types and can also edit, view and delete already created Outlet Type using this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Outlet Type



Adding a new Outlet Type

1

Add



- Click on <Add> button adds a new row into the table for adding a new record.

2

Outlet Type

- User enters outlet type into 'Outlet Type' text field.
- Outlet Type is mandatory field for adding a new Outlet Type.

3

Abbreviation

- User enters the abbreviation for the outlet type into 'Abbreviation' text field.
- Abbreviation is mandatory field for adding a new Outlet Type.

4

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

5

Cancel



- By clicking on the Cancel image, system moves the user to Outlet Type page without saving the record.

6

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

7

Delete

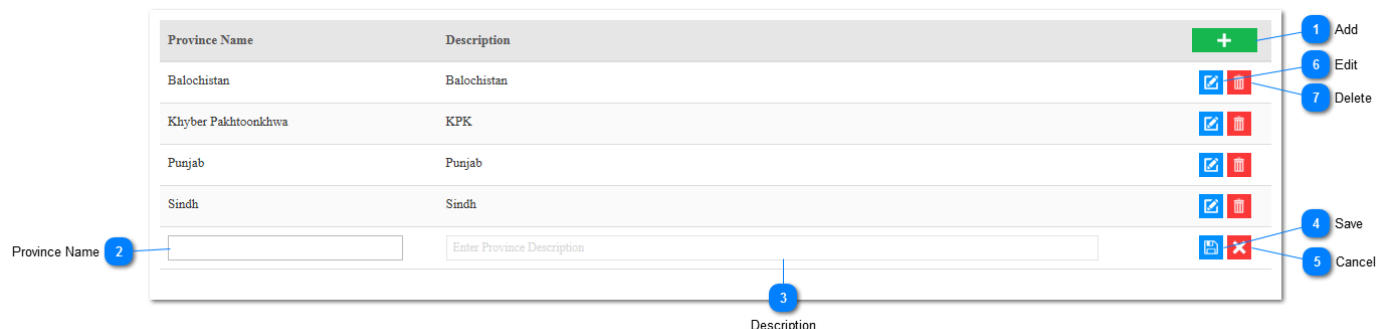


- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.13 Province

User can add new Province and can also edit, view and delete already created Province through this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Province



Province Name	Description
Balochistan	Balochistan
Khyber Pakhtoonkhwa	KPK
Punjab	Punjab
Sindh	Sindh

Province Name:

Description:

Adding a new Province

1 Add



- Click on <Add> button adds a new row into the table for adding a new record.

2 Province Name

- User enters the name of new province into 'Province Name' text field.
- Province Name is mandatory field for adding a new Province.

3 Description

- User enters the description of new province into 'Description' text field.

4 Save



- Click on 'Save' image, system verify all the required fields.

- System saves the data into the database & displays a message “Records saved successfully”.
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

5

Cancel



- By clicking on the Cancel image, system moves the user to Province page without saving the record.

6

Edit



- Click on ‘Edit’ image to edit the existing record.
- System opens the record into editable form.

7

Delete

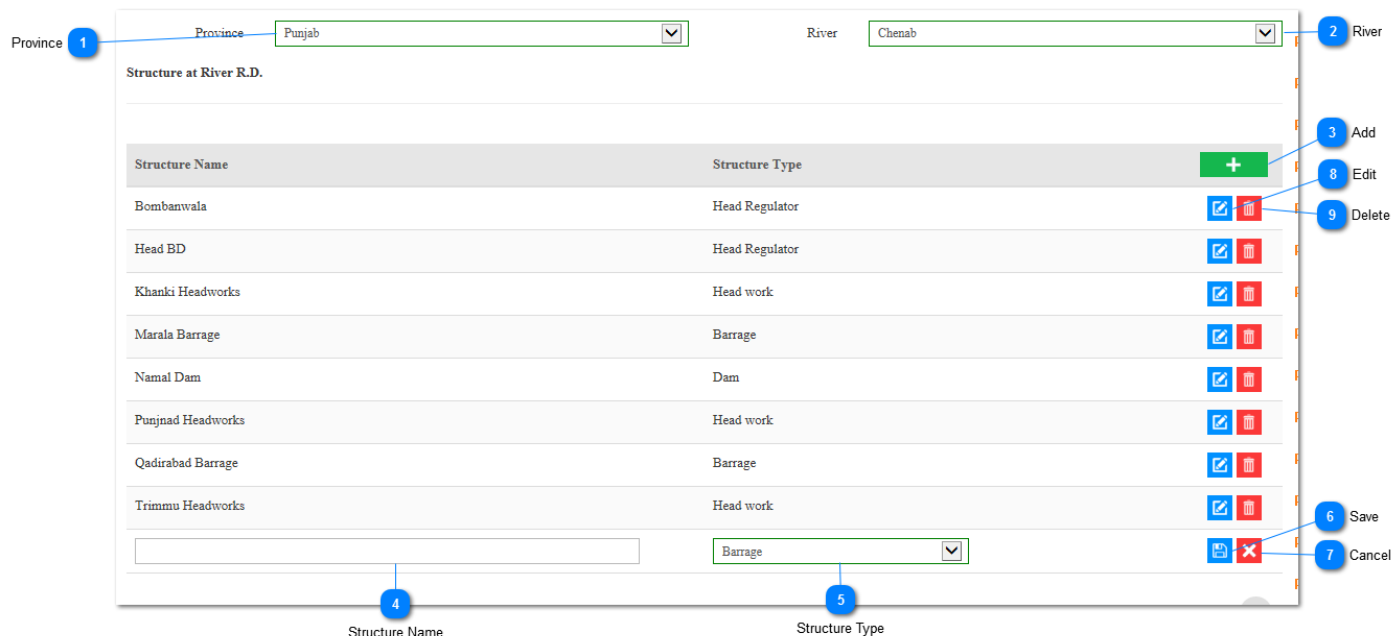


- Click on ‘Delete’ image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

1.14 Structure

















User can add a new Structure and can also edit, view and delete already created Structure using this page.

How to Access: Main Menu -> Irrigation Network - > Reference Data->Structure



Province **1** Punjab River **2** Chenab

Structure at River R.D.

Structure Name	Structure Type	
Bombanwala	Head Regulator	 
Head BD	Head Regulator	 
Khanki Headworks	Head work	 
Marala Barrage	Barrage	 
Namal Dam	Dam	 
Punjad Headworks	Head work	 
Qadirabad Barrage	Barrage	 
Trimmu Headworks	Head work	 

Structure Name **4** Structure Type **5** Barrage

3 Add **8** Edit **9** Delete **6** Save **7** Cancel

Adding a new Structure

1

Province

Punjab

- User selects a province into 'Province' dropdown.

2

River

Chenab

- User selects a river into 'River' dropdown
- System displays already created structures for that record into a table.

3

Add



- Click on <Add> button adds a new row into the table for adding a new record.

4

Structure Name

- User enters structure name into 'Structure Name' text field.

5

Structure Type

- User selects a structure type from 'Structure Type' dropdown.
- Structure Type is mandatory field for adding a new Structure.

6

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

7

Cancel



- By clicking on the Cancel image, system moves the user to Structure page without saving the record.

8

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

9

Delete





- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

2. Search Channel

This part of the Irrigation Network module provides an interface to search, edit, delete and view already created channels. Channels can be searched by its irrigational boundary, Command Name, Channel Type, Flow Type, Channel Name, Parent Channel and by IMIS Code. A new channel and its parameters like Physical Location, Gauge Information, Parent Feeder Information, Outlets and Reaches are also added/edited from this module.

How to Access: Main Menu -> Irrigation Network -> Channel Data

The screenshot shows the 'Channel Data' search interface. It includes several dropdown menus for filtering: Zone (1), Division (3), Command Name (5), Flow Type (7), Parent Channel (9), Circle (2), Sub Division (4), Channel Type (6), Channel Name (8), and IMIS Code (10). Below these are 'Search' (11) and 'Add New Channel' (12) buttons. The main table lists channels with columns: Channel Name, Channel Type, Flow Type, Total R.Ds., Command Name, CCA, and GCA. Each row has an 'Action' column with icons for Physical Location (13), Gauges (14), Parent/Feeders (15), Outlets (16), Reaches (17), Edit (18), and Delete (19). At the bottom, there is a 'Page Numbers' section (20) showing a range from 1 to 10.

Channel Name	Channel Type	Flow Type	Total R.Ds.	Command Name	CCA	GCA
Thal Canal Main Line Upper	Main Canal	Perennial	157+662	Indus Command	2115931	2460861
Bokhara Disty	Distributary Major	Non Perennial	48+000	Indus Command	12709	13376
Right Pai khel Canal	Distributary Major	Non Perennial	38+250	Indus Command	7731	7731
Daudkhel Minor	Distributary Minor	Non Perennial	29+000	Indus Command	2902	2902
Kot Ballian Minor	Distributary Minor	Non Perennial	5+200	Indus Command	566	566
Samand Wala Supply Channel	Distributary Major	Perennial	1+000	Indus Command	0	0
Kabir Wala Disty.	Distributary Major	Perennial	19+250	Indus Command	1377	1609
Pai Khel Minor	Distributary Minor	Perennial	10+500	Indus Command	1600	1900
Ahmad Wala Disty	Distributary Major	Perennial	30+000	Indus Command	4066	4388
Feeder Channel MWI Lift Scheme	Distributary Major	Perennial	15+000	Indus Command	497	500

1 Zone

Zone:

- User selects a zone from the list of already created zones into 'Zone' dropdown.
- System populates all the circles of that selected zone into 'Circle' dropdown.

2 Circle

All



- User selects a circle from the list of already created circles into 'circle' dropdown.
- System populates all the divisions of that selected circle into 'Division' dropdown.

3

Division

All



- User selects a division from the list of already created Divisions into 'Division' dropdown.
- System populates all the sub divisions of that selected division into 'Sub Division' dropdown.

4

Sub Division

All



- User selects a sub division from the list of already created sub divisions into 'Sub Division' dropdown.
- System populates all the channels of that selected sub division.

5

Command Name

All



- User selects command name into 'Command Name' dropdown.
- System populates all the channels of that selected Command Name.

6

Channel Type

All



- User selects channel type into 'Channel Type' dropdown.
- System populates all the channels on the basis of selected channel type.

7

Flow Type

All



- User selects flow type into 'Flow Type' dropdown.

8

Channel Name

Channel Name

- User enters channel name or a name similar to the Channel Name into 'Channel Name' text field.
- System populates all the channels like the name entered into Channel Name text field.

9

Parent Channel

All



- User selects parent channel into 'Parent Channel' dropdown.
- System populates all the channels on the basis of selected parent channel

10

IMIS Code

IMIS Code

- User enters IMIS code into 'IMIS Code' text field.
- System populates the record of the channel with matching IMIS Code.

11

Search

Search

- Click on <Search> Button.
- System displays the records as per the search criteria given by the user.
- If there is no record against the entered search criteria, system shows the message '**No record found**'
- System displays all records if no search criteria is provided

12

Add New Channel

Add New Channel

- Click on <Add New Channel> button, system navigates the user to channel add screen.

13

Physical Location



- Click on 'Physical location' button, system navigates the user to physical location Page of that specific channel

14

Gauges



- Click on 'Gauge' button navigates the user to gauge Page of that specific channel

15

Parent/Feeders



- Click on 'Parent/Feeder' button navigates the user to Parent Feeder Channel information Page of that specific channel

16

Outlets



- Click on 'Outlets' button navigates the user to outlets Page of that specific channel

17

Reaches



- Click on 'Reaches' button navigates the user to reaches Page of that specific channel

18

Edit



- Click on edit' button navigates the user to Add/ edit Page of that specific channel

19

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.



20

Page Numbers

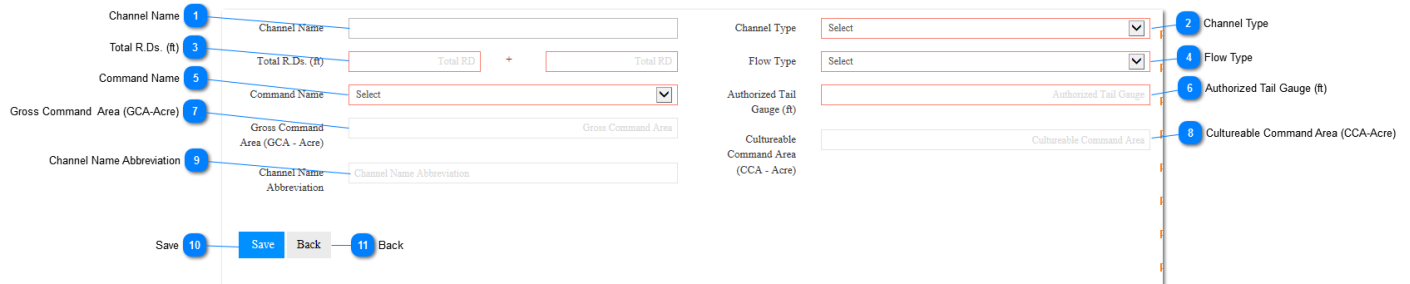
[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) ... >>

- Click on page numbers to move the user to other pages.



2.1 Add New Channel

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Add New Channel



The screenshot shows the 'Add New Channel' form with the following fields and callouts:

- 1: Channel Name (text input)
- 2: Channel Type (dropdown menu)
- 3: Total R.Ds. (ft) (numeric input, split into thousands and hundreds)
- 4: Flow Type (dropdown menu)
- 5: Command Name (dropdown menu)
- 6: Authorized Tail Gauge (ft) (text input)
- 7: Gross Command Area (GCA-Acre) (text input)
- 8: Culturable Command Area (CCA-Acre) (text input)
- 9: Channel Name Abbreviation (text input)
- 10: Save button
- 11: Back button

Adding a new Channel

1

Channel Name

- User enters the name of new channel into 'Channel Name' text field.
- Channel Name is mandatory field for adding a new Channel.

2

Channel Type

- User selects the channel type for the new channel into 'Channel Type' dropdown.
- Channel Type is mandatory field for adding a new Channel.

3

Total R.Ds. (ft)

 +

- User enters the total R.D of the channel into Total R.D numeric fields. On the left side box, user enter the number which is in thousands e.g. if user enters 25, it means 25 thousand and on the right side box, user enter the R.D which is the number it meant to be e.g. if user enters 200, it means 200 ft. Note that user cannot enter any value bigger than 999 in right side box since it would add one in left side box.
- Total R.Ds is mandatory field for adding a new Channel.

4

Flow Type

Select



- User selects the flow type for that channel into 'Flow Type' dropdown.
- Flow Type is mandatory field for adding a new Channel.

5

Command Name

Select



- User selects the command name into 'Command Name' dropdown.
- Command Name is mandatory field for adding a new Channel.

6

Authorized Tail Gauge (ft)

Authorized Tail Gauge

- User enters the authorized tail gauge of the channel into 'Authorized tail Gauge' numeric field.
- Authorized Tail Gauge is mandatory field for adding a new Channel.

7

Gross Command Area (GCA-Acre)

Gross Command Area

- User enters the Gross Command Area of the channel into 'Gross Command Area' numeric field.
- Gross Command Area is mandatory field for adding a new Channel.

8

Cultureable Command Area (CCA-Acre)

Cultureable Command Area

- User enters the Cultureable Command Area of the channel into 'Cultureable Command Area' numeric field.
- Cultureable Command Area is mandatory field for adding a new Channel.

9

Channel Name Abbreviation

Channel Name Abbreviation

- User enters the channel name abbreviation into 'Channel Name Abbreviation' text field.

10

Save



Save

- Click on <Save> button, system verify all the required fields.
- System saves the data into the database & displays a message “Records saved successfully”.
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

11

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.



2.2 Physical Location

Physical location is assigned to a channel in which user defines the irrigational and administrative boundaries of the channel. System consider the lowest R.D point as the starting point or Head Gauge of the Channel and the highest R.D as the Ending point or Tail Gauge of the channel. System populates all the districts into the Administrative boundary of selected Divisions in Irrigation Boundary.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Physical Location

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		
2115931		

Irrigation Boundaries

Zone	Circle	Division	Sub Division	Section	R.Ds. (ft)	
Sargodha	Thal	Kalabagh	H/Works	M.L.U	0+000	
Select	Select	Select	Select	Select		

Administrative Boundaries

District	Tehsil	Police Station	Village	From R.D. (ft)	To R.D. (ft)	Side
Select	Select	Select	Select			Select

Buttons: Add, Edit, Delete, Save, Cancel, Back

Adding Irrigational Boundaries

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		
2115931		

- System displays the basic information of that particular channel added on channel add/edit screen.

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3

Zone

- User selects a zone from zone dropdown.
- All the circles associated with selected zone will be populated into Circle dropdown.
- Zone is mandatory field for adding a new irrigational boundary.

4

Circle

- User selects a circle into 'Circle' dropdown.
- All the Divisions associated with the above Circle will be populated into Division dropdown.
- Circle is mandatory field for adding a new irrigational boundary.

5

Division

- User selects a division into 'Division' dropdown.
- All the sub divisions associated with the above Division will be populated into 'Sub Division' dropdown.
- Division is mandatory field for adding a new irrigational boundary.

6

Sub Division

- User selects a division into 'Sub Division' dropdown.
- All the sections associated with the above sub division will be populated in a table.
- Sub Division is mandatory field for adding a new irrigational boundary.

7

Section

- User selects a section into 'Section' dropdown.

- Section is mandatory field for adding a new irrigational boundary.
- Section is a unique field. System does not allow the user to add the same section twice against a channel.

8

R.Ds. (ft)

 +

- User enters the R.D of the channel into that specific section. It would represent the entering R.D. means the R.D from which a channel enters into the given Section.
- R.Ds is mandatory field for adding a new irrigational boundary.
- System does not allow the user to add R.Ds value greater than Authorized Tail Gauge value.

9

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

10

Cancel



- By clicking on the Cancel image, system moves the user to Physical Boundary page without saving the record.

11

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

12

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

Adding Administrative Boundaries

13

Add



- Click on <Add> button adds a new row into the table for adding a new record.

14

District

- User selects a district into 'District' dropdown.
- System populates all the tehsils associated to selected district into 'Tehsil' dropdown.
- District is mandatory field for adding a new administrative boundary.

15

Tehsil

- User selects a tehsil into 'tehsil' dropdown.
- System populates the tehsils of all selected Divisions into irrigation boundary.
- All the police stations associated to the selected Tehsil populates into 'Police station dropdown.
- Tehsil is mandatory field for adding a new administrative boundary.

16

Police Station

- User selects a police station into 'Police Station' dropdown.
- All the villages associated to the selected Police Station populates in a table.
- Police Station is mandatory field for adding a new administrative boundary.

17

Village

- User selects the village into 'Village' dropdown.
- Village is mandatory field for adding a new administrative boundary.

18

From R.D. (ft)

+

- User enters R.D of the channel entering into the village.
- R.Ds is mandatory field for adding a new administrative boundary.
- System does not allow the user to add R.Ds value greater than Authorized Tail Gauge value.

19


To R.D. (ft)

 +

- User enters the last R.D of the channel into that village.
- R.Ds is mandatory field for adding a new administrative boundary.
- System does not allow the user to add R.Ds value greater than Authorized Tail Gauge value.

20

Side

- User selects the side of the channel into 'Side' dropdown.
- Side is mandatory field for adding a new administrative boundary.

21

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

22

Cancel



- By clicking on the Cancel image, system moves the user to Physical Boundary page without saving the record.

23

Back

- Click on <Back> button discard all unsaved changes



- System navigates the user to channel search screen.

2.3 Gauges

System consider lowest R.D point as the head gauge and highest R.D point as tail gauge of the channel defined into irrigation boundary page. System allows the user to add different gauges according to gauge type with in the R.D range of irrigational boundary of the channel.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Gauges

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		2115931

Sub Division	Section	Gauge Type	Gauge Category	Gauge R.D (ft)	Design Discharge (Cusec)	Gauge at Bed or Crest?	
H/Works	M.L.U	Gauge Well	Head Gauge	0+000	9000	Bed Level	[Icons]
H/Works	M.L.U	Gauge Well	Tail Gauge	157+662	9000	Crest Level	[Icons]

Sub Division: [Select] Section: [Select] Gauge Type: [Select] Gauge Category: [Select] Gauge R.D (ft): [] + [] Design Discharge (Cusec): [] Gauge at Bed or Crest: [Select]

Back [Back] Section [Select] Gauge Type [Select] Gauge Category [Select] Gauge R.D (ft) [] Design Discharge (Cusec) [] Gauge at Bed or Crest [Select]

2 Add
14 DT Parameters
15 DT History
12 Edit
13 Delete
10 Save
11 Cancel

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		2115931

- System displays parent information in read only form

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3


Sub Division

- User selects a division into 'Sub Division' dropdown.
- System shows the subdivisions selected into irrigation boundaries of that channel.
- All the sections associated with the above sub division will be populated in 'Section' dropdown.
- Sub Division is mandatory field for adding a new Gauge.

4

Section

- User selects the Section into 'Section' dropdown.
- Section is mandatory field for adding a new Gauge.

5

Gauge Type

- System displays all gauge types from reference data gauge type screen.
- User selects the Gauge Type into 'Gauge Type' dropdown.
- Gauge Type is mandatory field for adding a new Gauge.

6

Gauge Category

- User selects the Gauge category into 'Gauge Category' dropdown.
- Gauge Category is mandatory field for adding a new Gauge.

7

Gauge R.D (ft)

 +

- User enters the R.D of the channel into that specific section.
- System auto populate the Gauge RD on the basis of Gauge Category field. e.g. in case of Sectional Gauge, Gauge R D will be Section R D.
- Gauge R.D is mandatory field for adding a new Gauge.

8

Design Discharge (Cusec)

- User enters the design discharge of the gauge into 'Design Discharge' numeric field.

9

Gauge at Bed or Crest

- User selects the gauge at bed or crest option into 'Gauge at Bed or Crest' dropdown.
- Gauge at Bed or Crest is mandatory field for adding a new Gauge.

10

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

11

Cancel



- By clicking on the Cancel image, system moves the user to Gauge Information page without saving the record.

12

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

13

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

14

DT Parameters



- Click on DT parameters button navigates the user to DT parameters page.

15

DT History



- Click on DT parameters button navigates the user to DT History page.

16

Back

Back

- Click on <Back> button discard all unsaved changes.
- System navigates the user to channel search screen.

2.4 DT Parameters

Discharge Table Parameters are associated with each Gauge defining the formula for calculating discharge value against entered gauge value. System allows the user to add DT parameters according to gauge at Bed or Crest.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Gauges -> DT Parameters

The screenshot shows the 'DT Parameters' form. It includes a table for 'Parent Information' with fields for Channel Name, Channel Type, Total R.Ds.(ft), Flow Type, Command Name, and Category of Gauge. Below this are input fields for Date of Reading, Value of Exponent (n), Observed Discharge (Qo Cusec), Gauge Value Correction, Mean Depth (D in ft), Gauge Correction Type (radio buttons for Bed Silted and Bed Scoured), and Coefficient of Discharge (K). At the bottom are 'Save' and 'Back' buttons.

1

Parent Information

Channel Name	Channel Type	Total R.Ds.(ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Category of Gauge
Perennial	Indus Command	Head Gauge

- System displays parent information such as Channel Name, Channel Type, Total R.Ds, Flow Type, Command Type, Category of Gauge in read only form.

2

Date of Reading

- User selects the date of reading into 'DT parameters into Date of Reading' calendar dropdown.
- System shows current date by default into calendar dropdown.

3

Value of Exponent (n)

- User enters the numeric value of exponent into 'Value of Exponent' numeric field. Presently, value of n is 1.67 throughout the system
- Value of exponent is mandatory field for adding a new DT parameters.

4

Mean Depth (D in ft)

- User enters the numeric value of mean depth into 'Mean Depth' numeric field.
- Mean Depth is mandatory field for adding a new DT parameters.

5

Observed Discharge (Qo Cusec)

- User enters the numeric value of Observed Discharge into 'Observed Discharge' numeric field.
- Observed Discharge is mandatory field for adding a new DT parameters.

6

Gauge Correction Type

☐ Bed Silted ☐ Bed Scoured

- User selects the gauge correction type by selecting either of 'Bed Silted and Bed Scoured' radio buttons.
- System enables the 'Gauge Value Correction' numeric field.

7

Gauge Value Correction

- User enters the gauge correction value into 'Gauge Value Correction' numeric field.
- Gauge value correction is mandatory field for adding a new DT parameters.
- System calculates this field by following formulas.
 $Q_o = k * d^n$
In case of Bed Silted, the value of Gauge Value Correction is subtracted from mean depth 'd' and in

case of Bed Scoured, the value of Gauge Correction is added in the mean depth 'd'.

Coefficient of Discharge (K)

- System auto calculates the Coefficient of Discharge field.

8



9

Save

Save

- Click on 'Save' button, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

10

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.5 DT History

System maintains the history of DT Parameter's into DT History page. User can view current DT parameters and previous DT parameters by selecting different dates into calendars dropdowns.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Gauges -> DT History

Parent Information 1

Channel Name	Channel Type	Total R.Ds.(ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Category of Gauge
Perennial	Indus Command	Head Gauge
Gauge Type		
Gauge Well		

From Date 2 From Date 01-Jul-2016 To Date 3 To Date 26-Sep-2016

Show History 4 Show History Back 5 Back

Date of Observation	Mean Depth (D in ft)	Value of Exponent (n)	Observed Discharge (Qo in Cusec)	Coefficient of Discharge (K)	Gauge Value Correction	Gauge Correction Type	Show Discharge Table
30-Aug-2016	1	1	1	1	0	Bed Silted	Discharge Table 6
26-Sep-2016	4	5	1200	4.93827160493827	1	Bed Silted	Discharge Table
26-Sep-2016	4	5	1200	4.93827160493827	1	Bed Silted	Discharge Table
26-Sep-2016	2	2	1123	70.1875	2	Bed Scoured	Discharge Table



1

Parent Information

Channel Name	Channel Type	Total R.Ds.(ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Category of Gauge
Perennial	Indus Command	Head Gauge
Gauge Type		
Gauge Well		

- System displays parent information in read only form.

2

From Date

- User selects the starting date into 'From Date' calendar dropdown.
- System shows "1 – current date" into 'From Date' calendar dropdown.

3

To Date

- User selects the ending date into 'To Date' calendar dropdown.
- System shows current date into 'To Date' calendar dropdown.

4

Show History

[Show History](#)

- Click on <Show History> button shows the results between the above selected dates.

5

Back

[Back](#)

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

6

Discharge Table



Discharge Table

- Click on <Discharge Table> button navigates the user to Discharge Table page.



2.6 Parent/Feeders

System shows all the channels present into the divisions selected into irrigation boundary of this channels. System also shows all barrages Dams structures which are used as a parent at lowest RD point of the channel. System allows the user to add a parent at channel's lowest R.D point and feeder at the rest of the R.Ds points. System prevents the user to add two channels as feeder on same side and same RD.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Parent/Feeder

The screenshot shows a form for managing parent and feeder channels. It includes a table for parent information and a table for parent or feeder channels. Numbered callouts indicate the following elements:

- 1: Parent Information (points to the parent table)
- 2: Add button (green + icon)
- 3: Parent or Feeder Channel Name dropdown
- 4: Relationship Type dropdown
- 5: Side dropdown
- 6: R.D (ft) at Channel input
- 7: R.D (ft) at Parent or Feeder Channel input
- 8: Save button (blue checkmark)
- 9: Cancel button (red X)
- 10: Edit button (blue pencil)
- 11: Delete button (red trash)
- 12: Back button

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		2115931

Parent or Feeder Channel Name	Relationship Type	Side	R.D (ft) at Channel	R.D (ft) at Parent or Feeder Channel	
kalabagh/Jinnah Barrage	Parent	Left	0+000	0+000	
Select	Select	Select			

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Gross Command Area (Acre)
Perennial	Indus Command	2460861
Culturable Command Area (Acre)		2115931

- System displays parent information in read only form.

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3

Parent or Feeder Channel Name

- User selects the parent or feeder channel from 'Parent or Feeder Channel Name' dropdown.
- System shows the list of all barrages/headworks and all the channels present into the current channel's division.
- Parent or Feeder Channel Name is mandatory field for adding a new Parent/Feeder.

4

Relationship Type

- User selects the relationship type from 'Relationship Type' dropdown.
- Relationship Type is mandatory field for adding a new Parent/Feeder.

5

Side

- User selects the side into 'Side' dropdown.
- Side is mandatory field for adding a new Parent/Feeder.

6

R.D (ft.) at Channel

 +

- User enters the RD of the channel at which channel connects with his parent/feeder channel.
- System auto populate this field in case of parent channel. i.e. head gauge R D of this channel
- R.D at Channel is mandatory field for adding a new Parent/Feeder.

7

R.D (ft.) at Parent or Feeder Channel

 +

- User enters the RD of the channel at which parent/feeder channel connects with this channel.
- System auto populate this field in case of feeder channel. i.e. Tail gauge R D of feeder channel
- R.D at Parent or Feeder Channel is mandatory field for adding a new Parent/Feeder.

8

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

9

Cancel



- By clicking on the Cancel image, system moves the user to Parent/Feeder page without saving the record.

10

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

11

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

12

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.7 Outlets

System allows the user to add outlet within the range of lowest R.D point and Highest R.D point of the channel. System maintains the list of villages attached to the Outlet and complete alteration history of outlets. The Outlet once added can be altered only and user can inactive the outlet but cannot be deleted.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Outlets

Parent Information

Channel Name	Thal Canal Main Line Upper	Channel Type	Main Canal	Total R.Ds. (ft)	157+662
Flow Type	Perennial	Command Name	Indus Command	IMIS Code	302100000000000000

Add New Outlet [Add New Outlet] [Back]

Outlet R.D. & Side	Outlet Type	Village Name	Design Discharge (Cusec)	Design Diameter/ Width (ft)	Height of Outlet (Y in ft)	Head above Crest (H in ft)	Submergence (h in ft)	Crest Reduced Level (ft)	Minimum Modular Head (mmh)
25+100/L	APM		1050	1	1	1	0	1	1

4 Outlet Villages
5 Alteration
6 Alteration History
7 Edit

Adding a new Outlet

1

Parent Information

Channel Name	Thal Canal Main Line Upper	Channel Type	Main Canal	Total R.Ds. (ft)	157+662
Flow Type	Perennial	Command Name	Indus Command	IMIS Code	302100000000000000

- System displays parent information in read only form.

2

Add New Outlet

Add New Outlet

- Click on <Add new Outlet> button navigates the user to Outlet add/edit page.

3

Back

Back

- Click on <Back> button discard all unsaved changes

- System navigates the user to channel search screen.

4

Outlet Villages



- Click on Outlet Village image navigates the user to Outlet Village page.

5

Alteration



- Click on Alteration image navigates the user to Alteration page.

6

Alteration History



- Click on Alteration History image navigates the user to Alteration History page.

7

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

2.8 Add New Outlet

System adds a new outlet on a specific R.D and only one Outlet is allowed to be added on one R.D and on same Side. After Adding Outlets are altered but never deleted.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Outlets -> Add new Outlet

The screenshot shows the 'Add New Outlet' form. It includes a 'Parent Information' section at the top, followed by input fields for 'Outlet R.D. (ft)', 'Outlet Side', 'Gross Command Area (GCA - Acre)', 'Design Discharge (Cusec)', 'Height of Outlet/Orifice (Y in ft)', 'Submergence (h = H - Y in ft)', 'Crest Reduced Level (RL in ft)', and 'Working Head (ft)'. There are also dropdown menus for 'Outlet Type' and 'Outlet Side'. At the bottom, there are 'Save' and 'Back' buttons. Numbered callouts (1-16) point to various elements: 1. Parent Information, 2. Outlet R.D. (ft), 3. Outlet Side, 4. Gross Command Area (GCA - Acre), 5. Culturable Command Area (CCA-Acre), 6. Design Discharge (Cusec), 7. Outlet Type, 8. Height of Outlet/Orifice (Y in ft), 9. Head above Crest of Outlet (H in ft), 10. Submergence (h = H - Y in ft), 11. Diameter/Breadth/Width (Dia/B in ft), 12. Crest Reduced Level (RL in ft), 13. Minimum Modular Head (MMH in ft), 14. Working Head (ft), 15. Save button, 16. Back button.

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	IMIS Code
Perennial	Indus Command	302100000000000000

- System displays parent information in read only form.

2

Outlet R.D. (ft.)

The screenshot shows the 'Outlet R.D. (ft.)' input field, which is a numeric field with a '+' sign next to it, indicating it is a mandatory field.

- User enters the R.D of the Outlet into 'Outlet R.D' numeric fields.
- System allows the user to enter Outlet R.D with in the R.D range of irrigation boundary of that channel.
- Outlet R.D is mandatory field for adding a new Outlet.

3

Outlet Side

Select 

- User selects the outlet side into 'Outlet Side' dropdown.
- Outlet side is mandatory field for adding a new Outlet.

4

Gross Command Area (GCA - Acre)

Gross Command Area

- User enters the Gross Command Area of the Outlet into 'Gross Command Area' numeric field.

5

Cultureable Command Area (CCA-Acre)

Cultureable Command Area

- User enters the Cultureable Command Area of the Outlet into 'Cultureable Command Area' numeric field.

6

Design Discharge (Cusec)

Design Discharge

- User enters the design discharge of the Outlet into 'Design Discharge' numeric field.
- Design Discharge is mandatory field for adding a new Outlet.

7

Outlet Type

Select 

- User selects the type of the Outlet into 'Outlet Type' dropdown.
- Outlet Type is mandatory field for adding a new Outlet.

8

Height of Outlet/Orifice (Y in ft.)

Height of Outlet/Orifice

- User enters the height of Outlet into 'height of Outlet/Orifice' numeric field.
- Height of Outlet/Orifice is mandatory field for adding a new Outlet.

9

Head above Crest of Outlet (H in ft.)

Head above Crest of Outlet

- User enters the Head above crest of the Outlet into 'Head above crest of the Outlet' numeric field.
- Head above crest of the Outlet is mandatory field for adding a new Outlet

10

Submergence ($h = H - Y$ in ft.)

Submergence

- System auto calculates the submergence field.

11

Diameter/Breadth/Width (Dia/B in ft.)

Diameter/Breadth/ Width

- User enters the Diameter/Breadth/Width of Outlet into 'Diameter/Breadth/Width' numeric field Diameter/Breadth/width Minimum Modular Head.

12

Crest Reduced Level (RL in ft.)

Crest Reduced Level

- User enters the Crest Reduced Level into 'Crest Reduced Level' numeric field.
- Crest Reduced Level is mandatory field for adding a new Outlet.

13

Minimum Modular Head (MMH in ft.)

Minimum Modular Head

- User enters the Minimum Modular Head of Outlet into 'Minimum Modular Head' numeric field. Minimum Modular Head is mandatory field for adding a new Outlet.

14

Working Head (ft.)

Working Head

- User enters the Working Head of Outlet into 'Working Head' numeric field. Working Head is mandatory field for adding a new Outlet.

15

Save

Save

- Click on <Save> button, system verify all the required fields.
- System saves the data into the database & displays a message “Records saved successfully”.
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

16

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.9 Outlet Villages

System allows the user to add all the villages into the range of specific Outlet. System ask the user that whether this outlet is installed on this village or not. System only allows one Yes option for a single village. Other associated Villages attached by this Outlet having No Outlet installed option.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Outlets -> Outlet Villages

Channel Name	Channel Type	Outlet R.D
Thal Canal Main Line Upper	Main Canal	25+100
Outlet Side	Design Discharge (Cusec)	Outlet Type
Left	1050	APM
Height of Outlet/Orifice (Y in ft)	Head above Crest of Outlet (H in ft)	Minimum Modular Head (ft)
1	1	1

Village Name	Outlet installed at Village
1-ML	No

Village Name:

Outlet installed at Village:

Back:

Buttons: Add (2), Edit (7), Delete (8), Save (5), Cancel (6)

1

Parent Information

Channel Name	Channel Type	Outlet R.D
Thal Canal Main Line Upper	Main Canal	25+100
Outlet Side	Design Discharge (Cusec)	Outlet Type
Left	1050	APM
Height of Outlet/Orifice (Y in ft)	Head above Crest of Outlet (H in ft)	Minimum Modular Head (ft)
1	1	1

- System displays parent information in read only form.

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3

Village Name

- User selects the villages name into 'Village Name' dropdown.
- Village Name is mandatory field for adding a village.

4

Outlet installed at Village

- User selects the option yes or no into 'Outlet installed at Village' dropdown.
- Outlet installed at Village is mandatory field.
- Option 'Yes' cannot be applied for two villages for the same Outlet.

5

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

6

Cancel



- By clicking on the Cancel image, system moves the user to Outlet Villages page without saving the record.

7

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

8

Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

9

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.10 Outlet Alteration

System allows the User to change parameters of the Outlet. User can disable the Outlet by changing the status of the outlet. i.e. Inactive

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Outlets -> Outlet Alteration

The screenshot shows the 'Outlet Alteration' form. It is divided into two main sections: 'Parent Information' (top) and 'Alteration Details' (bottom). The 'Parent Information' section contains a table with the following data:

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Outlet R.Ds. (ft)
Perennial	Indus Command	25+100
Outlet Side	District	Tehsil
Left		
Police Station	Village	IMIS Code
		3021000000000000

The 'Alteration Details' section contains various input fields and dropdowns:

- Alteration Date:** 26-Sep-2016
- Gross Command Area (GCA - Acre):** 3
- Design Discharge (Cusec):** 1050
- Outlet Status:** Active
- Cultureable Command Area (CCA-Acre):** 2.5
- Outlet Type:** Adjustable Proportional Module
- Height of Outlet/Orifice (Y in ft):** 1
- Head above Crest of Outlet (H in ft):** 1
- Submergence (h = H - Y in ft):** 0
- Diameter/Breadth/ Width (Dia/B in ft):** 1
- Crest Reduced Level (RL in ft):** 1
- Minimum Modular Head (MMH in ft):** 1
- Working Head (ft):** 1
- Buttons:** Save, Back

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Outlet R.Ds. (ft)
Perennial	Indus Command	25+100
Outlet Side	District	Tehsil
Left		
Police Station	Village	IMIS Code
		3021000000000000

- System displays parent information in read only form.

2

Alteration Date

- User selects the date of alteration into 'Alteration date' calendar dropdown.

3

Outlet Status

- User selects the outlet status into 'Outlet Status' dropdown.

4

Gross Command Area (GCA - Acre)

- User enters the Gross Command Area of the Outlet into 'Gross Command Area' numeric field.

5

Cultureable Command Area (CCA-Acre)

- User enters the Cultureable Command Area of the Outlet into 'Cultureable Command Area' numeric field.

6

Design Discharge (Cusec)

- User enters the design discharge of the Outlet into 'Design Discharge' numeric field.

7

Outlet Type

- User selects the type of the Outlet into 'Outlet Type' dropdown.

8

Height of Outlet/Orifice (Y in ft.)

- User enters the height of Outlet into 'height of Outlet/Orifice' numeric field.

9

Head above Crest of Outlet (H in ft.)

- User enters the Head above crest of the Outlet into 'Head above crest of the Outlet' numeric field.

10

Submergence ($h = H - Y$ in ft.)

- System auto calculates the submergence field.

11

Diameter/Breadth/ Width (Dia/B in ft.)

- User enters the Diameter/Breadth/Width of Outlet into 'Diameter/Breadth/Width' numeric field.

12

Crest Reduced Level (RL in ft.)

- User enters the Crest Reduced Level into 'Crest Reduced Level' numeric field.

13

Minimum Modular Head (MMH in ft.)

- User enters the Minimum Modular Head of Outlet into 'Minimum Modular Head' numeric field.

14

Working Head (ft.)

- User enters the Working Head of Outlet into 'Working Head' numeric field.

15

Save

Save

- Click on <Save> button, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

16

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.



2.11 Outlet Alteration History

System allows the user to view complete Alteration history of that specific Outlet.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Outlets -> Outlet Alteration History

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Outlet R.Ds. (ft)
Perennial	Indus Command	25+100
Outlet Side	District	Tehsil
Left		
Police Station	Village	IMIS Code
		302100000000000000

From Date To Date

Show History

Outlet Alteration History

Alteration Date	Outlet Type	Design Discharge (Cusec)	Diameter/Width (ft)	Height of Outlet (Y in ft)	Head above Crest (H in ft)	Submergence (h in ft)	Crest Reduced Level (ft)	Minimum Modular Head (mmh in ft)	Working Head (wh in ft)	Status
26-Sep-2016	APM	1050	1	1	1	0	1	1	1	
26-Sep-2016	APM	1050	1	1	1	0	1	1	1	
26-Sep-2016	APM	1050	1	1	1	0	1	1	1	Active
26-Sep-2016	APM	1050	1	1	1	0	1	1	1	Active

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	Outlet R.Ds. (ft)
Perennial	Indus Command	25+100
Outlet Side	District	Tehsil
Left		
Police Station	Village	IMIS Code
		302100000000000000

- System displays parent information in read only form.

2

From Date



- User selects the starting date into 'From Date' calendar dropdown.
- System shows "1 – current date" into 'From Date' calendar dropdown.

3

To Date



- User selects the ending date into 'To Date' calendar dropdown.
- System shows current date into 'To Date' calendar dropdown.

4

Show History

Show History

- Click on <Show History> button shows the results between the above selected dates.

5

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.12 Reaches

System adds, edits and deletes the reaches from this page. While adding first reach system auto populate reach starting R.D. i.e. lowest R.D point of the channel and Reach R.D cannot be more than channel Total R.D. If a user deletes a reach that lies between two reaches at different R.Ds. System auto insert the deleted starting R.D to the next reach.

How to Access: Main Menu -> Irrigation Network - > Channel Data -> Search -> Reaches

The screenshot shows the 'Reaches' management interface. It includes a 'Parent Information' section at the top, a table of existing reaches, and a form to add a new reach. Numbered callouts indicate the following elements:

- 1: Parent Information section
- 2: Add button
- 3: Reach Starting R.Ds. (ft) input field
- 4: Reach Ending R.Ds. (ft) input field
- 5: Remarks input field
- 6: Save button
- 7: Cancel button
- 8: L Section Starting RD input field
- 9: L Section Ending RD input field
- 10: L Section History Starting RD input field
- 11: L Section History Ending RD input field
- 12: Edit button
- 13: Delete button
- 14: Back button

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662

Flow Type	Command Name	IMIS Code
Perennial	Indus Command	302100000000000000

Reach Starting R.Ds. (ft)	Reach Ending R.Ds. (ft)	Remarks
5+055	55+054	
55+054	56+055	22121
56+055	57+056	nm
57+056	58+059	456
58+059		

Add Reaches

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Command Name	IMIS Code
Perennial	Indus Command	302100000000000000

- System displays parent information in read only form.

2

Add



- Click on <Add> button adds a new row into the table for adding a new record.

3

Reach Starting R.Ds. (ft.)

58+059

- User enters the starting RD of the reach into 'Reach Starting R.Ds' numeric fields.
- System auto populate first reach starting R.D. i.e. The Head RD of the channel

4

Reach Ending R.Ds. (ft.)

+

- User enters the Ending RD of the reach into 'Reach Ending R.Ds' numeric fields.

5

Remarks

- User enters the remarks into 'Remarks' text field.

6

Save



- Click on 'Save' image, system verify all the required fields.
- System saves the data into the database & displays a message "Records saved successfully".
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

7

Cancel



- By clicking on the Cancel image, system moves the user to Reaches page without saving the record.

8

L Section Starting RD



- Click on 'L Section Starting RD' image navigates the user to L Section Starting RD page.

9

L Section Ending RD



- Click on 'L Section Ending RD' image navigates the user to L Section Ending RD page.

10

L Section History Starting RD



- Click on 'L Section History Starting RD' image navigates the user to L Section History Starting RD page.

11

L Section History Ending RD



- Click on 'L Section History Ending RD' image navigates the user to L Section History Ending RD page.

12

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

13

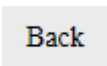
Delete



- Click on 'Delete' image to delete the existing record.
- System display error message if any of the child entry has been entered for this specific record.
- System deletes the newly added record from the table.

14

Back



- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.13 L Section Starting RD

System allows the user to add parameters for L Section Starting RD.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Reaches -> L Section Starting RD

The screenshot shows a web-based form for entering L Section Starting RD data. The form is divided into several sections:

- Parent Information (1):** A table showing channel details.

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	5+055
IMIS Code	302100000000000000	
- Parameter Change Date (2):** A date picker showing 26-Sep-2016.
- Natural Surface Level (ft) (3):** A text input field.
- Bed Level (ft) (5):** A text input field.
- Bed Width (ft) (7):** A text input field.
- Side Slop (h:w) (9):** A text input field.
- Lacey's "F" or Critical Velocity Ratio (11):** A text input field.
- Left Bank Width (ft) (13):** A text input field.
- Lined or Unlined (15):** A dropdown menu with "Select" as the current option.
- L Section (17):** A text input field with a "Browse..." button.
- Save (18):** A button labeled "Save".
- Back (19):** A button labeled "Back".
- Authorized Full Supply (Cusec) (4):** A text input field.
- Full Supply Level (ft) (6):** A text input field.
- Full Supply Depth (ft) (8):** A text input field.
- Slop in 0/00 (ft) (10):** A text input field.
- Free Board (ft) (12):** A text input field.
- Right Bank Width (ft) (14):** A text input field.
- Type of Lining (16):** A dropdown menu with "Select" as the current option.

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	5+055
IMIS Code	302100000000000000	

- System displays parent information in read only form.

2

Parameter Change Date

The screenshot shows a date picker field with the date 26-Sep-2016 selected.

- User selects the parameters change date into 'Parameters Change Date' calendar dropdown.
- System shows current date by default into calendar dropdown.

3

Natural Surface Level (ft.)

- User enters Natural Surface level value into 'Natural Surface Level' numeric field.
- Natural Surface Level is mandatory field for adding a new L Section Starting RD.

4

Authorized Full Supply (Cusec)

- User enters Authorized Full Supply value into 'Authorized Full Supply' numeric field.
- Authorized Full Supply is mandatory field for adding a new L Section Starting RD.

5

Bed Level (ft.)

- User enters Bed level value into 'Bed Level' numeric field.
- Bed Level is mandatory field for adding a new L Section Starting RD.

6

Full Supply Level (ft.)

- User enters Full Supply level value into 'Full Supply Level' numeric field.
- Full Supply Level is mandatory field for adding a new L Section Starting RD.

7

Bed Width (ft.)

- User enters Bed Width value into 'Bed Width' numeric field.
- Bed Width is mandatory field for adding a new L Section Starting RD.

8

Full Supply Depth (ft.)

- User enters Full Supply Depth value into 'Full Supply Depth' numeric field.
- Full Supply Depth is mandatory field for adding a new L Section Starting RD.

9

Side Slop (h:w)

- User enters Side Slop value into 'Side Slop' numeric field.
- Side Slope is mandatory field for adding a new L Section Starting RD.

10

Slop in 0/00 (ft.)

- User enters Slop in 0/00 value into 'slop in 0/00' numeric field.
- Slop in 0/00 is mandatory field for adding a new L Section Starting RD.

11

Lacey's "f" or Critical Velocity Ratio

- User enters Lacey's "f" or Critical Velocity Ratio value into 'Lacey's "f" or Critical Velocity Ratio' numeric field.
- Lacey's "f" or Critical Velocity Ratio is mandatory field for adding a new L Section Starting RD.

12

Free Board (ft.)

- User enters Free Board value into 'Free Board' numeric field.
- Free Board is mandatory field for adding a new L Section Starting RD.

13

Left Bank Width (ft.)

- User enters Left bank Width value into 'left bank Width' numeric field.
- Left Bank Width is mandatory field for adding a new L Section Starting RD.

14

Right Bank Width (ft.)

- User enters Right Bank Width value into 'Right Bank Width' numeric field.
- Right Bank Width is mandatory field for adding a new L Section Starting RD.

15


Lined or Unlined

- User enters Lined or unlined value into 'Lined or Unlined' numeric field.
- Lined or Unlined is mandatory field for adding a new L Section Starting RD.

16

Type of Lining

- User selects type of lining into 'Type of Lining' dropdown.
- Type of Lining is mandatory field for adding a new L Section Starting RD.

17

L Section

- User attaches the images of L section into 'L Section' browse path.
- L Section is mandatory field for adding a new L Section Starting RD.

18

Save



- Click on <Save> image, system verify all the required fields.
- System saves the data into the database & displays a message “Records saved successfully”.
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

19

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.



2.14 L Section Ending RD

System allows the user to add parameters for L Section Ending RD.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Reaches -> L Section Ending RD

The screenshot shows a web-based form for adding parameters for an L Section Ending RD. The form is divided into several sections:

- Parent Information (1):** A table showing channel details.

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	55+054
IMIS Code	302100000000000000	
- Parameter Change Date (2):** A date picker showing 26-Sep-2016.
- Natural Surface Level (ft) (3):** A text input field.
- Bed Level (ft) (5):** A text input field.
- Bed Width (ft) (7):** A text input field.
- Side Slope (ft:1) (9):** A text input field.
- Lacey's "f" or Critical Velocity Ratio (11):** A text input field.
- Left Bank Width (ft) (13):** A text input field.
- Lined or Unlined (15):** A dropdown menu with "Select" as the current option.
- L Section (17):** A text input field with a "Browse..." button.
- Save (18):** A blue "Save" button.
- Back (19):** A blue "Back" button.
- Authorized Full Supply (Cusec) (4):** A text input field.
- Full Supply Level (ft) (6):** A text input field.
- Full Supply Depth (ft) (8):** A text input field.
- Slope in 0/00 (ft) (10):** A text input field.
- Free Board (ft) (12):** A text input field.
- Right Bank Width (ft) (14):** A text input field.
- Type of Lining (16):** A dropdown menu with "Select" as the current option.

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	55+054
IMIS Code	302100000000000000	

- System displays parent information in read only form.

2

Parameter Change Date

The screenshot shows a date picker widget with the date 26-Sep-2016 selected. The widget includes a calendar icon on the left and a close button (X) on the right.

- User selects the parameters change date into 'Parameters Change Date' calendar dropdown.
- System shows current date by default into calendar dropdown.

3

Natural Surface Level (ft.)

- User enters Natural Surface level value into 'Natural Surface Level' numeric field.
- Natural Surface Level is mandatory field for adding a new L Section Ending RD.

4

Authorized Full Supply (Cusec)

- User enters Authorized Full Supply value into 'Authorized Full Supply' numeric field.
- Authorized Full Supply is mandatory field for adding a new L Section Ending RD.

5

Bed Level (ft.)

- User enters Bed level value into 'Bed Level' numeric field.
- Bed Level is mandatory field for adding a new L Section Ending RD.

6

Full Supply Level (ft.)

- User enters Full Supply level value into 'Full Supply Level' numeric field.
- Full Supply Level is mandatory field for adding a new L Section Ending RD.

7

Bed Width (ft.)

- User enters Bed Width value into 'Bed Width' numeric field.
- Bed Width is mandatory field for adding a new L Section Ending RD.

8

Full Supply Depth (ft.)

- User enters Full Supply Depth value into 'Full Supply Depth' numeric field.
- Full Supply Depth is mandatory field for adding a new L Section Ending RD.

9

Side Slop (h:w)

- User enters Side Slop value into 'Side Slop' numeric field.
- Side Slope is mandatory field for adding a new L Section Ending RD.

10

Slop in 0/00 (ft.)

- User enters Slop in 0/00 value into 'slop in 0/00' numeric field.
- Slop in 0/00 is mandatory field for adding a new L Section Ending RD.

11

Lacey's "f" or Critical Velocity Ratio

- User enters Lacey's "f" or Critical Velocity Ratio value into 'Lacey's "f" or Critical Velocity Ratio' numeric field.
- Lacey's "f" or Critical Velocity Ratio is mandatory field for adding a new L Section Ending RD.

12

Free Board (ft.)

- User enters Free Board value into 'Free Board' numeric field.
- Free Board is mandatory field for adding a new L Section Ending RD.

13

Left Bank Width (ft.)

- User enters Left bank Width value into 'left bank Width' numeric field.
- Left Bank Width is mandatory field for adding a new L Section Ending RD.

14

Right Bank Width (ft.)

- User enters Right Bank Width value into 'Right Bank Width' numeric field.
- Right Bank Width is mandatory field for adding a new L Section Ending RD.

15


Lined or Unlined

- User enters Lined or unlined value into 'Lined or Unlined' numeric field.
- Lined or Unlined is mandatory field for adding a new L Section Ending RD.

16

Type of Lining

- User selects type of lining into 'Type of Lining' dropdown.
- Type of Lining is mandatory field for adding a new L Section Ending RD.

17

L Section

- User attaches the images of L section into 'L Section' browse path.
- L Section is mandatory field for adding a new L Section Ending RD

18

Save

- Click on <Save> image, system verify all the required fields.
- System saves the data into the database & displays a message “Records saved successfully”.
- System display error message if any of the required fields has not been entered.
- System displays newly added record into the Table.

19

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.15 L Section History Starting RD

System allows the user to view L Section Starting RD history for that specific reach.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Reaches -> L Section History Starting RD

Parent Information

Channel Name	Thal Canal Main Line Upper	Channel Type	Main Canal	Total R.Ds. (ft)	157+662
Flow Type	Perennial	Reach No	1	R.D (ft)	5+055
IMIS Code	302100000000000000				

Date Selection

From Date: 26-Sep-2016 To Date: 27-Sep-2016

L-Section Parameters History

Parameter change Date	NS Level (ft.)	AFS (Cusec)	Bed Level (ft)	FSL (ft)	Bed Width (ft)	FS Depth (ft)	Side Slope (h:w)	Slope in 0/00 (ft)	Lacey's f or C.V.R	Free Board (ft)	Bank Width Left (ft)	Bank Width Right (ft)	Lined or Unlined	Type of Lining
26-Sep-2016	2	2	1	2	1	2	1	2	1	2	1	2	Unlined	

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	5+055
IMIS Code		
302100000000000000		

- System displays parent information in read only form.

2


From Date

26-Sep-2016

- User selects the starting date into 'From Date' calendar dropdown.
- System shows "1 – current date" into 'From Date' calendar dropdown.

3

To Date

 27-Sep-2016 

- User selects the Ending date into 'To Date' calendar dropdown.
- System shows current date into 'To Date' calendar dropdown.

4

Show History

Show History

- Click on <Show History> button shows the results between the above selected dates.

5

View L Section Image



- Click on 'View L Section Image' image displays the image attachment.

6

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

2.16 L Section History Ending RD

System allows the user to view L Section Ending RD history for that specific reach.

How to Access: Main Menu -> Irrigation Network -> Channel Data -> Search -> Reaches -> L Section History Ending RD

The screenshot shows the 'L Section History Ending RD' interface. It includes a 'Parent Information' section with fields for Channel Name, Channel Type, Total R.Ds. (ft), Flow Type, Reach No, R.D (ft), and IMIS Code. Below this are 'From Date' and 'To Date' calendar dropdowns. A 'Show History' button is highlighted with a blue callout. Below the buttons is a table titled 'L-Section Parameters History' with columns for various parameters including NS Level, AFS, Bed Level, FSL, Bed Width, FS Depth, Side Slope, Slope in 0/00, Lacey's f or C.V.R, Free Board, Bank Width Left, Bank Width Right, Lined or Unlined, and Type of Lining. A 'View L Section Image' button is located at the bottom right of the table.

1

Parent Information

Channel Name	Channel Type	Total R.Ds. (ft)
Thal Canal Main Line Upper	Main Canal	157+662
Flow Type	Reach No	R.D (ft)
Perennial	1	55+054
IMIS Code		
302100000000000000		

- System displays parent information in read only form.


2

From Date

- User selects the starting date into 'From Date' calendar dropdown.
- System shows "1 – current date" into 'From Date' calendar dropdown.

3

To Date

 27-Sep-2016 

- User selects the ending date into 'To Date' calendar dropdown.
- System shows current date into 'To Date' calendar dropdown.

4

Show History

Show History

- Click on <Show History> button shows the results between the above selected dates.

5

Back

Back

- Click on <Back> button discard all unsaved changes
- System navigates the user to channel search screen.

6

View L Section Image



- Click on 'View L Section Image' image displays the image attachment.