

# Australian Hydrological Geospatial Fabric (Geofabric) Data Dictionary

Surface Catchments

Version 2.0 – November 2011



**Australian Government**  
**Bureau of Meteorology**



## Contact details

Geospatial Data Unit

Bureau of Meteorology  
GPO Box 2334 CANBERRA ACT 2601

Phone: 02 6232 3502  
Email: [ahgf@bom.gov.au](mailto:ahgf@bom.gov.au)

## Geofabric Surface Catchments V2.0

### Table Of Contents

<a href="#"><u>Domains</u></a>	<i>Listing of Coded Value and Range Domains.</i>
<a href="#"><u>ObjectClasses</u></a>	<i>Listing of Tables and FeatureClasses.</i>
<a href="#"><u>Relationships</u></a>	<i>Listing of Geodatabase Relationships.</i>
<a href="#"><u>Spatial Reference</u></a>	<i>Listing of Spatial References used by FeatureClasses and FeatureDatasets.</i>

## Domains

Domain Name	Domain Type
<a href="#"><u>AHGFCatchmentType</u></a>	Coded Value

[Back to Top](#)

### AHGFCatchmentType

<b>Description</b>	Surface water drainage area (terrain based).
<b>Domain Type</b>	Coded Value
<b>Field Type</b>	Integer
<b>Merge Policy</b>	Default Value
<b>Split Policy</b>	Default Value
<b>Domain Members</b>	
<b>Name</b>	<b>Value</b>
Catchment	21

[Back to Top](#)

## ObjectClasses

ObjectClass Name	Type	Geometry	Subtype
<b>SH_Catchments</b>			<a href="#">SR</a>
<a href="#">AHGFCatchment</a>	Simple FeatureClass	Polygon	-
<a href="#">NCBLevel1DrainageDivision</a>	Simple FeatureClass	Polygon	-
<a href="#">NCBLevel2DrainageBasinGroup</a>	Simple FeatureClass	Polygon	-
<b>Stand Alone ObjectClass(s)</b>			
<a href="#">NCBPfafstetter</a>	Table	-	-

[Back to Top](#)

### AHGFCatchment

<b>Alias</b>	AHGFCatchment		<b>Geometry:</b> Polygon			
<b>Dataset Type</b>	FeatureClass		<b>Average Number of Points:</b> 0			
<b>FeatureType</b>	Simple		<b>Has M:</b> No			
			<b>Has Z:</b> No			
			<b>Grid Size:</b> 1,000			
Field Name	Alias Name	Model Name	Type	Length	Null	
OBJECTID	OBJECTID	OBJECTID	OID	4	No	
Shape	Shape	Shape	Geometry	0	Yes	
HydroID			Integer	4	No	
AHGFFType	AHGFFeatureType	AHGFFType	Integer	4	No	
NetNodeID	NetworkNodeID	NetNodeID	Integer	4	Yes	
NCB_ID			Integer	4	No	
SegmentNo			Integer	4	Yes	
StreamName			String	60	Yes	
HasSegment			Integer	4	Yes	
ExtrnlBasn	ExternalBasin	ExtrnlBasn	Integer	4	Yes	
NextDownID			Integer	4	Yes	
SrcFCName	SourceFeatureClassName	SrcFCName	String	25	No	
SrcFType	SourceFeatureType	SrcFType	String	32	No	
SrcType	SourceType	SrcType	Integer	4	Yes	
SourceID			Integer	4	Yes	
FeatRel	FeatureReliability	FeatRel	Date	8	Yes	
FSource	FeatureSource	FSource	String	25	No	

## Australian Hydrological Geospatial Fabric (Geofabric) Data Dictionary - Surface Catchments

AttrRel	AttributeReliability	AttrRel	Date	8	Yes
AttrSource	AttributeSource	AttrSource	String	25	No
PlanAcc	PlanimetricAccuracy	PlanAcc	Small Integer	2	Yes
Symbol			Small Integer	2	Yes
TextNote			String	50	Yes
AlbersArea			Double	8	Yes
Shape_Length	Shape_Length	Shape_Length	Double	8	Yes
Shape_Area	Shape_Area	Shape_Area	Double	8	Yes
<b>Subtype Name</b>	<b>Default Value</b>	<b>Domain</b>			
<b>ObjectClass</b>					
AHGFFType	21	<a href="#">AHGFCatchmentType</a>			
<b>Index Name</b>	<b>Ascending</b>	<b>Unique</b>	<b>Fields</b>		
FDO_OBJECTID	Yes	Yes	OBJECTID		
FDO_Shape	No	No	Shape		
GDB_23_NCB_ID	Yes	No	NCB_ID		

[Back to Top](#)

## NCBLevel1DrainageDivision

<b>Alias</b>	NCBLevel1DrainageDivision		<b>Geometry:</b> Polygon		
<b>Dataset Type</b>	FeatureClass		<b>Average Number of Points:</b> 0		
<b>FeatureType</b>	Simple		<b>Has M:</b> No		
			<b>Has Z:</b> No		
			<b>Grid Size:</b> 1,000		
Field Name	Alias Name	Model Name	Type	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	4	No
Shape	Shape	Shape	Geometry	0	Yes
HydroID			Integer	4	No
DivNumber	DivisionNumber	DivNumber	Integer	4	Yes
Division			String	50	Yes
SrcFCName	SourceFeatureClassName	SrcFCName	String	25	No
SrcFType	SourceFeatureType	SrcFType	String	32	No
SrcType	SourceType	SrcType	Integer	4	Yes
SourceID			Integer	4	Yes
FeatRel	FeatureReliability	FeatRel	Date	8	Yes
FSource	FeatureSource	Fsource	String	25	No
AttrRel	AttributeReliability	AttrRel	Date	8	Yes
AttrSource	AttributeSource	AttrSource	String	25	No
PlanAcc	PlanimetricAccuracy	PlanAcc	Small Integer	2	Yes
Symbol			Small Integer	2	Yes
TextNote			String	50	Yes
AlbersArea			Double	8	Yes
Shape_Length	Shape_Length	Shape_Length	Double	8	Yes
Shape_Area	Shape_Area	Shape_Area	Double	8	Yes
Subtype Name	Default Value		Domain		
Index Name	Ascending	Unique	Fields		
FDO_OBJECTID	Yes	Yes	OBJECTID		
FDO_Shape	No	No	Shape		
GDB_24_DivNumber	Yes	No	DivNumber		

[Back to Top](#)

## NCBLevel2DrainageBasinGroup

<b>Alias</b>	NCBLevel2DrainageBasinGroup		<b>Geometry:</b> Polygon		
<b>Dataset Type</b>	FeatureClass		<b>Average Number of Points:</b> 0		
<b>FeatureType</b>	Simple		<b>Has M:</b> No		
			<b>Has Z:</b> No		
			<b>Grid Size:</b> 1,000		
Field Name	Alias Name	Model Name	Type	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	4	No
Shape	Shape	Shape	Geometry	0	Yes
HydroID			Integer	4	No
DivNumber	DivisionNumber	DivNumber	Integer	4	Yes
Level2Num	Level2Number	Level2Num	Integer	4	Yes
Level2Name			String	50	Yes
SrcFCName	SourceFeatureClassName	SrcFCName	String	25	No
SrcFType	SourceFeatureType	SrcFType	String	32	No
SrcType	SourceType	SrcType	Integer	4	Yes
SourceID			Integer	4	Yes
FeatRel	FeatureReliability	FeatRel	Date	8	Yes
Fsource	FeatureSource	Fsource	String	25	No
AttrRel	AttributeReliability	AttrRel	Date	8	Yes
AttrSource	AttributeSource	AttrSource	String	25	No
PlanAcc	PlanimetricAccuracy	PlanAcc	Small Integer	2	Yes
Symbol			Small Integer	2	Yes
TextNote			String	50	Yes
AlbersArea			Double	8	Yes
Shape_Length	Shape_Length	Shape_Length	Double	8	Yes
Shape_Area	Shape_Area	Shape_Area	Double	8	Yes
Subtype Name	Default Value		Domain		
Index Name	Ascending	Unique	Fields		
FDO_OBJECTID	Yes	Yes	OBJECTID		
FDO_Shape	No	No	Shape		
GDB_25_Level2Num	Yes	No	Level2Num		

[Back to Top](#)

## NCBPfafstetter

Alias NCBPfafstetter						
Dataset Type Table						
Field Name	Alias Name	Model Name	Type	Length	Null	
OBJECTID	OBJECTID	OBJECTID	OID	4	No	
NCB_ID			Integer	4	No	
Basin			Integer	4	Yes	
BasinName			String	50	Yes	
NCB_Code			String	20	Yes	
PfafNo			Double	8	Yes	
Level1			Integer	4	Yes	
Division			String	50	Yes	
Level2			Integer	4	Yes	
Level2Name			String	50	Yes	
PfafL3			Integer	4	Yes	
PfafL4			Integer	4	Yes	
PfafL5			Integer	4	Yes	
PfafL6			Integer	4	Yes	
PfafL7			Integer	4	Yes	
PfafL8			Integer	4	Yes	
PfafL9			Integer	4	Yes	
PfafL10			Integer	4	Yes	
PfafL11			Integer	4	Yes	
PfafL12			Integer	4	Yes	
PfafL13			Integer	4	Yes	
PfafL14			Integer	4	Yes	
PfafL15			Integer	4	Yes	
BasinLevel			Integer	4	Yes	
LastPfaf			Integer	4	Yes	
BasinPfaf			String	17	Yes	
BasinD8			Integer	4	Yes	
AWRCBNum			String	5	Yes	
AWRCRNum			String	5	Yes	
AWRCDNum			String	5	Yes	
AWRCBName			String	30	Yes	
AWRCRName			String	35	Yes	
AWRCDName			String	25	Yes	
AnaBrLevel			Integer	4	Yes	
MainStemUp			Integer	4	Yes	
AnaBrDown			Integer	4	Yes	

## Australian Hydrological Geospatial Fabric (Geofabric) Data Dictionary - Surface Catchments

Subtype Name	Default Value		Domain	
Index Name	Ascending	Unique		Fields
FDO_OBJECTID	Yes	Yes		OBJECTID
GDB_8_Level1	Yes	No		Level1
GDB_8_Level2	Yes	No		Level2
GDB_8_NCB_ID	Yes	No		NCB_ID

[Back to Top](#)

## Relationships

Name	Origin	Destination	Attributed	Composite	Rules
<a href="#">BasinGroupContainsPfafCats</a>	NCBLevel2DrainageBasinGroup	NCBPfafstetter	No	No	No
<a href="#">CatchmentIsExtendedByPfafstetter</a>	AHGFCatchment	NCBPfafstetter	No	No	No
<a href="#">DrainDivContainsPfafCats</a>	NCBLevel1DrainageDivision	NCBPfafstetter	No	No	No

### BasinGroupContainsPfafCats

<b>Composite</b>	No	
<b>Cardinality</b>	One To Many	
<b>Notification</b>	None	
<b>Attributed</b>	No	
	<b>Origin</b>	<b>Destination</b>
<b>ObjectClass</b>	NCBLevel2DrainageBasinGroup	NCBPfafstetter
<b>Key</b>	Level2Num ( <i>Origin Primary Key</i> )	Level2 ( <i>Origin Foreign Key</i> )
<b>Labels</b>	Is contained by	contains

[Back to Top](#)

### CatchmentIsExtendedByPfafstetter

<b>Composite</b>	No	
<b>Cardinality</b>	One To One	
<b>Notification</b>	None	
<b>Attributed</b>	No	
	<b>Origin</b>	<b>Destination</b>
<b>ObjectClass</b>	AHGFCatchment	NCBPfafstetter
<b>Key</b>	NCB_ID ( <i>Origin Primary Key</i> )	NCB_ID ( <i>Origin Foreign Key</i> )
<b>Labels</b>	extends	is extended by

[Back to Top](#)

## DrainDivContainsPfafCats

<b>Composite</b>	No	
<b>Cardinality</b>	One To Many	
<b>Notification</b>	None	
<b>Attributed</b>	No	
	<b>Origin</b>	<b>Destination</b>
<b>ObjectClass</b>	NCBLevel1DrainageDivision	NCBPfafstetter
<b>Key</b>	DivNumber ( <i>Origin Primary Key</i> )	Level1 ( <i>Origin Foreign Key</i> )
<b>Labels</b>	is contained by	contains

[Back to Top](#)

### Spatial references

Dimension	Minimum	Precision
<b>SH_Catchments</b>		
<b>X</b>	-400	1,000,000,000
<b>Y</b>	-400	
<b>M</b>	0	100,000
<b>Z</b>	0	100,000
<b>Coordinate System Description</b> GEOGCS["GCS_GDA_1994", DATUM["D_GDA_1994", SPHEROID["GRS_1980",6378137.0,298.257222101]], PRIMEM["Greenwich",0.0], UNIT["Degree",0.0174532925199433], AUTHORITY["EPSG",4283]]		

[Back to Top](#)

Through the *Water Act 2007*, the Australian Government has given the Bureau of Meteorology responsibility for compiling and delivering comprehensive water information across Australia.

**For more information**

Visit our website at [www.bom.gov.au/water](http://www.bom.gov.au/water)

Send an email request to [waterinfo@bom.gov.au](mailto:waterinfo@bom.gov.au)



**Australian Government**  

---

**Bureau of Meteorology**