

Appendix Z: Fish Passage Benefit Multiplier

Eligible fish passage projects include:

- 1) Removal of dams and other fish barrier structures OR;
- 2) Construction of stable, roughened rapids that submerges the crest of the barrier, including a 6" notch in the dam a minimum of 30 percent of the channel width.

Update: 07/22/2016

Benefit Multiplier is to be used to calculate credits generated by dam or other fish passable structure mitigation
Structures not on the list below will be included if data is presented to show passage benefits on a case by case basis

Structures that have been pre-reviewed include the following:

ID	County	StreamName	Dam Name	Height in		Ownership	Drain Area	X UTM	Y UTM	Multiplier
				Feet	Feet					
Jon-3	Jones	Maquoketa River	Mon-Maq Dam	10	441	Jones County Conservation Board	657	650799	4678546	0.90
Cer-13	Cerro Gordo	Winnebago River	Illinois Street Dam	2	U	City of Mason City	632	485982	4777823	0.14
Cer-18	Cerro Gordo	Willow Creek	Jackson Avenue Dam	U	U	City of Mason City	103	482826	4777689	0.35
Cer-9	Cerro Gordo	Willow Creek	Pennsylvania Avenue Dam	3	104	City of Mason City	105	483875	4777241	0.56
Dub-2	Dubuque	North Fork Maquoketa R	Cascade Falls Dam	1	U		207	663817	4684925	0.70
Mit-4	Mitchell	Cedar River	Mitchell Mill Dam	20	120	Mitchell County Conservation Board	826	509624	4796156	0.70
Web-5	Webster	Lizard Creek	Lizard Creek Mill Dam	1	30	City of Fort Dodge	437	400717	4707397	0.07
Cer-11	Cerro Gordo	Winnebago River	12th Street Dam	3	100	City of Mason City	526	484304	4778855	0.60
Cer-4	Cerro Gordo	Winnebago River	East Park Dam	1	150	City of Mason City	526	484974	4778252	0.30
Del-3	Delaware	Maquoketa River	Manchester Dam	U	154	Alliant Energy	268	626704	4704459	0.06
Ham-3	Hamilton	Boone River	Webster City Dam	3	40	City of Webster City	660	433040	4702708	0.18
Lin-6	Linn	Wapsipinicon River	Pinicon Ridge Park Dam	U	240	Linn County Conservation Board	1263	621475	4673559	0.60
Lin-7	Linn	Buffalo Creek	Buffalo Creek Park Dam	U	130	Linn County Conservation Board	142	621022	4682232	0.60
Lyo-2	Lyon	Rock River	City Park East Channel Dam	5	74	City of Rock Rapids	789	243815	4813914	0.12
Mit-3	Mitchell	Cedar River	St. Ansgar Mill Dam	8	220	Sherwin Klienwart	780	505163	4802092	0.60
Web-4	Webster	Lizard Creek	Clare Gaging Dam	2	60	U.S.G.S.	257	389567	4711101	0.48
Bla-7	Black Hawk	Cedar River	Pioneer Park Structure/Water Line	1	0	City of Waterloo	5146	554903	4704762	0.05
But-1	Butler	Shell Rock River	Greene Dam	10	210	Butler County Conservation Board	1357	516118	4749189	0.50
Cer-19	Cerro Gordo	Willow Creek	Pierce Avenue Dam	U	U	City of Mason City	103	482012	4778136	0.50
Cer-5	Cerro Gordo	Willow Creek	Fourth Street Dam	2	40	City of Mason City	105	484993	4778066	0.25
Cer-8	Cerro Gordo	Willow Creek	Rock Glen Dam	6	90	Abandoned	105	484388	4777555	0.50
Flo-5	Floyd	Shell Rock River	Marble Rock Dam	10	200	City of Marble Rock	1319	510516	4756982	0.50
How-3	Howard	Upper Iowa River	Litke Mill Dam	12	120	Howard County Conservation Board	182	558363	4812675	0.50
Jas-1	Jasper	North Skunk River	Wagaman Mill Dam	10	84	Lynnville Historical Society	282	518105	4603275	0.50
Joh-2	Johnson	Iowa River	Burlington Street Dam	11	300	University of Iowa	3271	621482	4612804	0.50
Lyo-1	Lyon	Rock River	Rock Rapids Dam	10	162	City of Rock Rapids	789	243699	4814228	0.50
Lyo-6	Lyon	Rock River	City Park Big Ford	2	0	City of Rock Rapids	789	243751	4814225	0.25
Mit-2	Mitchell	Cedar River	Otranto Mill Dam	7	120	Mitchell County Conservation Board	656	501494	4811636	0.50
Bre-1	Bremer	Wapsipinicon River	Frederika Dam	6	60	Bremer County Conservation Board	328	556299	4748008	0.40
Bre-5	Bremer	East Fork Wapsipinicon R	Sweet Marsh Dam	U	U	DNR (Sweet Marsh WMA)	148	562245	4742108	0.32
But-3	Butler	Shell Rock River	Heery Woods Park Dam	4	150	Butler County Conservation Board (Heery Woods Pk)/DNR	1650	527091	4734985	0.40
But-4	Butler	Shell Rock River	Shell Rock Mill Dam	5	215	Butler County Conservation Board	1746	534215	4728905	0.40
Chi-1	Chickasaw	Wapsipinicon River	Buckley Rock Dam Ford	7	80	Bob Buckley	325	554510	4752224	0.32
Chi-2	Chickasaw	Cedar River	Cedar Lake Dam	17	407	City of Nashua	1113	537862	4755951	0.40
Flo-1	Floyd	Cedar River	Main Street Dam	11	238	City of Charles City	1054	526029	4768226	0.40
Flo-3	Floyd	Shell Rock River	Nora Springs Dam	6	70	City of Nora Springs	499	498849	4777169	0.40
Har-3	Hardin	Iowa River	Steamboat Rock Dam	10	210	DNR	737	494024	4695118	0.40
How-6	Howard	Crane Creek	Saratoga Dam	U	U	Howard County Conservation Board	0	548196	4802151	0.20
Lin-2	Linn	Cedar River	C Street Roller Dam	U	636	Alliant Energy	6510	613555	4644502	0.32
Lin-4	Linn	Cedar River	Palisades-Kepler Dam	8	780	Palisades St. Park	6955	623836	4639894	0.04
Mit-1	Mitchell	Little Cedar River	Stacyville Dam	8	80	Town of Stacyville	88	517921	4809106	0.40
Wap-1	Wapello	Des Moines River	Market Street Dam	14	700	Ottumwa Water Works	13374	549105	4540671	0.40
Wor-2	Worth	Shell Rock River	Northwood Dam	2	35	City of Northwood	277	481901	4809881	0.12
Bla-3	Black Hawk	Cedar River	Park Avenue Dam	12	414	City of Waterloo	5146	554377	4705201	0.30
Bla-4	Black Hawk	Cedar River	Sixth St. Dam	2	450	City of Waterloo	5146	554606	4704948	0.09
Bre-2	Bremer	Cedar River	Waverly Dam	11	310	City of Waverly	1549	543322	4730581	0.30
Buc-1	Buchanan	Little Wapsipinicon R (lower)	Fairbank Dam	12	289	City of Fairbank	125	577701	4721232	0.30
Buc-2	Buchanan	Wapsipinicon River	Littleton Mill Dam	9	280	Coventry with DNR easement	899	579839	4709144	0.30
Buc-3	Buchanan	Wapsipinicon River	Independence Low Dam	4	240	City of Independence	1048	590892	4701849	0.09
Buc-4	Buchanan	Wapsipinicon River	Independence Mill Dam	12	270	City of Independence	1048	590870	4702468	0.30
Buc-6	Buchanan	Otter Creek	Fontana Lake Dam	12	80	City of Hazelton	56	589487	4717441	0.30
But-7	Butler	West Fork Cedar River	Big Marsh Diversion Dam	5	U	DNR (Big Marsh WMA)	708	513740	4725785	0.06
Fay-7	Fayette	Otter Creek	Lake Oelwein Dam	14	200	City of Oelwein	41	588877	4722156	0.30
Fra-1	Franklin	Spring Creek	Beed's Lake Dam	35	240	DNR	32	480701	4735300	0.30
Fra-2	Franklin	Spring Creek	Harriman Park Dam	6	70	City of Hampton	32	483264	4734161	0.30
Fra-3	Franklin	Otter Creek	Robinson Park Dam	3	52	Franklin County Conservation Board	84	484900	4736223	0.15
Har-1	Hardin	Iowa River	Alden Dam	10	208	City of Alden	638	469055	4707737	0.30
How-2	Howard	Little Wapsipinicon R (upper)	Lylah's Marsh Dam	10	70	Howard County Conservation Board	19	542999	4792547	0.30
Iow-1	Iowa	Iowa River	Amana Millrace Diversion Dam	9	178	Amana Colony	2829	584147	4627396	0.18
Joh-1	Johnson	Iowa River	Iowa River Power Company Dam	10	280	Johnson County Conservation Board	3162	619490	4614591	0.30
Kos-11	Kossuth	Buffalo Creek	Buffalo Creek Dam	13	150	Union Slough National Wildlife Refuge	160	405575	4784716	0.30
Lin-5	Linn	Wapsipinicon River	Troy Mills Dam	6	280	NA	1210	608612	4682632	0.30
Mit-10	Mitchell	Rock Creek	Jersey Avenue Wier	2	U		56	512460	4784757	0.15
Mit-7	Mitchell	Rock Creek	Rock Creek Village Ford	3	U		41	506615	4787245	0.15
Mit-8	Mitchell	Rock Creek	Rock Creek Village Dam	6	U		46	506739	4786816	0.30
Pag-1	Page	West Nodaway River	Clarinda Dam	6	130	City of Clarinda	762	329981	4512057	0.30
She-2	Shelby	Mosquito Creek	North Panama Dam	6	69	Iowa D.O.T.	16	295038	4625270	0.30
She-4	Shelby	Mosquito Creek	Panama High Tress Weir	U	U	Shelby County Engineer	0	294476	4622635	0.30
She-5	Shelby	Mosquito Creek	F-32 Weir	4	49	Shelby County Engineer	55	294702	4621317	0.30
She-6	Shelby	Mosquito Creek	Bruch Weir	U	U	Shelby County Engineer	0	289764	4611843	0.30
Web-1	Webster	Des Moines River	Ft. Dodge Hydro Dam	16	270	City of Fort Dodge	3753	401397	4707800	0.30
Web-2	Webster	Des Moines River	Little Dam	8	366	City of Fort Dodge	4228	402432	4705278	0.30
Web-8	Webster	Soldier Creek	Williams Drive Dam	U	U	City of Fort Dodge	37	402596	4707953	0.24
Wor-1	Worth	Winnebago River	Fertile Mill Dam	11	114	Worth County Conservation Board	304	465772	4790195	0.30
Wor-3	Worth	Elk Creek	Elk Creek Game Mgmt Dam 1	18	60	DNR (Elk Creek Marsh)	32	467620	4806032	0.30
Bla-1	Black Hawk	Cedar River	Cedar Falls Dam/Center St. Dam	12	342	City of Cedar Falls	4734	545282	4709820	0.20
Bla-2	Black Hawk	Cedar River	Clay Hole	3	410	City of Cedar Falls	4734	545776	4709665	0.10
But-5	Butler	Beaver Creek	Beaver Meadows Dam	4	125	Butler County Conservation Board (Beaver Meadows Pk)	264	517937	4714440	0.10
Car-8	Carroll	Brushy Creek	Mikkelsen Low Head Dam	4	39	Carroll County Engineer	0	346422	4644148	0.12
Cas-1	Cass	Troublesome Creek	Atlantic Waterworks Dam	8	28.5	Atlantic Municipal Utilities	131	332736	4586364	0.04
Cra-1	Crawford	East [Branch] Boyer River	Denison Dam	2	60	City of Denison	127	305468	4653599	0.06
Emm-3	Emmet	[West Fork] Des Moines R	South Riverside Park Dam	2	70	City of Estherville	1372	350539	4806732	0.02
Fay-9	Fayette	Little Turkey Creek	Wacouma Mill Dam	11	224		0	578689.4	4767349	0.20
Gru-3	Grundy	Blackhawk Creek	Grundy Center Ford	3	U	NA	56	519579	4690540	0.14
Has-1	Harrison	Little Sioux River	Sill #4	1	100	Corps of Engineers	3538	251265	4638886	0.06
Hum-1	Humboldt	[West Fork] Des Moines R	Rutland Dam	13	200	Humboldt County Conservation Board	2233	393916	4734446	0.20
Hum-2	Humboldt	[West Fork] Des Moines R	Reasoner Dam	15	300	Humboldt County Conservation Board	2256	399323	4731201	0.20
Mad-2	Madison	Middle River	Pammel Park Ford	3	100	State of Iowa	230	410011	4572112	0.10
Mot-3	Montgomery	Walnut Creek	901 Sherman (HHRSTS)	6	30	Montgomery County Engineer	80	312628	4557295	0.20

Obr-1	O'Brien	Floyd River	Sheldon Waterworks Dam	4	40	City Sheldon	64	268563	4786537	0.16
Pot-21	Pottawattamie	Walnut Creek	69-6114-2-1(6)	4	30	Pottawattamie County Engineer	54	314734	4575771	0.12
Sto-6	Story	Skunk River	East River Valley Park / 13th St. Dam	4	U	U.S.G.S.	323	450507	4654095	0.20
Tay-3	Taylor	West Fork 102 River	Wind Mill Lake County Park	4	64	Taylor County Engineer	119	345241	4511652	0.12
Woo-10	Woodbury	Mud Creek		4	20	Woodbury County Engineer	60	279806	4579420	0.16
Woo-11	Woodbury	Big Whiskey Creek	6318-10	3	60	Woodbury County Engineer	255	233337	4710380	0.12
Woo-13	Woodbury	Elliot Creek	318-40	4	24	Woodbury County Engineer	55	237204	4702442	0.16
Woo-3	Woodbury	Floyd River	4th Street Dam	2	75	City of Sioux City - Public Works	911	221408	4710183	0.08
Woo-5	Woodbury	Floyd River	Dace Avenue Dam	7	U	City of Sioux City - Public Works	911	221241	4709581	0.20
Woo-6	Woodbury	Floyd River	Dam at the Mouth	3	U	City of Sioux City - Public Works	912	221253	4709003	0.08
Woo-9	Woodbury	Mud Creek	No name in data?	4	20	Woodbury County Engineer	54	245785	4715165	0.12
Boo-1	Boone	Des Moines River	Fraser Dam	6	240	City of Fraser	5483	419266	4664217	0.16
Boo-3	Boone	Bluff Creek	Don Williams Lake Dam	45	60	Boone County Conservation Board	33	415842	4662648	0.20
Cas-3	Cass	Sevenmile Creek	327-77	4	50	Cass County Engineer	91	341530	4572096	0.10
Cas-4	Cass	Sevenmile Creek	327-88	4	46	Cass County Engineer	82	330635	4567847	0.10
Cly-3	Clayton	Volga River	Volga City Dam	1	U	NA	261	619481	4740275	0.02
Del-1	Delaware	Maquoketa River	Backbone Lake Dams	U	110	State Conservation Commission	118	620037	4717512	0.20
Ham-7	Hamilton	White Fox Creek	Kendall Young Park Ford	2	50	City of Webster City	112	433729	4703812	0.06
Has-5	Harrison	Mosquito Creek	Mosquito Creek Flume	23.8	80	Harrison County - Road Dept.	97	285594	4604572	0.20
Jac-2	Jackson	Prairie Creek	Prairie Creek Ford	U	U		44	694066	4658490	0.08
Jac-3	Jackson	Lytle Creek	Lytle Creek Ford	3	U	NA	67	684940	4680182	0.06
Joh-6	Johnson	Mill Creek	Lake MacBride Dam	30	150	ACE	27	618464	4627705	0.20
Osc-1	Osceola	Otter Creek	Ashton Dam	6	75	Chicago, Northwestern Railway	107	273800	4798888	0.20
Pol-7	Polk	Big Creek	Big Creek Spillway	97	100	Big Creek St. Park/ACE	80	438434	4625800	0.20
Pot-4	Pottawattamie	Mosquito Creek	Council Bluffs Dam	4	80	Lake Manawa St. Park	230	262925	4567688	0.12
Sto-3	Story	Skunk River	Sleepy Hollow/Hannum's Mill	U	50	U.S.G.S.	315	448761	4657551	0.14
Sto-5	Story	Squaw Creek	Lincolnway Gaging Dam	2	60	Ames Water and Pollution Control	204	447775	4652473	0.08
Sto-7	Story	Squaw Creek	Veenker Golf Course Ford	3	U		191	445867	4654584	0.10
Web-10	Webster	Soldier Creek	Armstrong Park Dam	4	U	City of Fort Dodge	37	402142	4707481	0.20
Web-7	Webster	Soldier Creek	Snell-Crawford Park Fords	U	U	City of Fort Dodge	37	402933	4708007	0.06
Aud-2	Audubon	East Nishnabotna R	Audubon Waterworks Dam	6	120	City of Audubon	83	343658	4620708	0.20
Dal-1	Dallas	Middle Raccoon River	Redfield Dam	9	110	City of Redfield	609	399742	4605029	0.20
Dal-2	Dallas	N. Raccoon River	Adel North Dam	U	142	City of Adel	2250	413797	4610588	0.01
Dal-3	Dallas	N. Raccoon River	Adel Island Park Dam	12	163	City of Adel	2281	415571	4608109	0.04
Fay-2	Fayette	South Fork (or Little) Volga R	Maynard Dam	5	40	City of Maynard	26	591421	4737080	0.20
Fay-4	Fayette	Turkey River	Clermont Dam	5	110	City of Clermont	745	609362	4761457	0.14
Gut-1	Guthrie	Middle Raccoon River	Lenon Mill Dam	5	100	Guthrie County Conservation Board	434	385877	4615927	0.20
Gut-2	Guthrie	South Raccoon River	Pipeline	6	50	Northern Natural Gas Company	42	367757	4619169	0.20
Gut-3	Guthrie	South Raccoon River	Pipeline2	7	45	Northern Natural Gas Company	42	367439	4619351	0.20
Gut-5	Guthrie	Brushy Creek	357-20	5.5	78	Guthrie County Engineer	110	367115	4625099	0.20
Has-3	Harrison	Willow Creek	Miles Mann Flume	32	70	Harrison County - Road Dept.	69	271191	4631834	0.20
Has-4	Harrison	Willow Creek	Burkholder Flume	20	80	Harrison County - Road Dept.	108	285258	4623144	0.20
How-4	Howard	Turkey River	King's Road Ford	1	U	Howard County Conservation Board	78	572832	4797650	0.02
Jas-2	Jasper	Rock Creek	Rock Creek Lake Dam	33	200	DNR	41	512328	4620575	0.20
Mil-1	Mills	Silver Creek	Railroad	6	90	Mills County Engineer	246	280995	4543575	0.20
Mon-2	Monona	West Fork Ditch	Bed Grade Control Structure	6	30	Little Sioux Drainage Dist.	597	246248	4674181	0.20
Mon-3	Monona	West Fork Ditch	Bed Grade Control Structure	6	30	Little Sioux Drainage Dist.	600	247272	4670761	0.20
Mot-7	Montgomery	Tarkio River	2007 3/4 (Bergulinds) (8301-10(3))	5.5	55	Montgomery County Engineer	55	321335	4533528	0.20
Mus-1	Muscatine	Pine Creek	Pine Creek Grist Mill Dam	8	50	State Conservation Commission	38	678067	4592875	0.20
Pag-2	Page	Tarkio River	8315-20/#	4	36	Page County Engineer	68	318831	4528327	0.20
Pag-3	Page	Tarkio River	L-315-10	6	68	Page County Engineer	156	313327	4509051	0.20
Pag-4	Page	Middle Tarkio River	L-315-03	6	25	Page County Engineer	67	305098	4506188	0.20
Pag-5	Page	Middle Tarkio River	HCA - 1	5	38	Page County Engineer	74	303919	4502996	0.20
Pag-6	Page	Middle Tarkio River	EWP - IA - 73 - 88	5	59	Page County Engineer	85	302562	4499417	0.20
Pol-1	Polk	Des Moines River	Center Street Dam (Des Moines)	U	364	City of Des Moines	6245	448434	4604628	0.20
Pol-2	Polk	Des Moines River	Scott Street Dam	U	440	City of Des Moines	9879	449011	4603272	0.16
Pol-5	Polk	Raccoon River	Fleur Drive Dam	U	205	DSM water works	3626	446449	4603218	0.16
Pot-10	Pottawattamie	Mosquito Creek	8339-02(3)	4.5	33	Burlington Northern Railroad	86	281691	4591209	0.16
Pot-7	Pottawattamie	Keg Creek	03-8-F	2.5	21	Pottawattamie County Engineer	78	283094	4585449	0.10
Pot-8	Pottawattamie	Keg Creek	69-6-114-4	2.5	26	Pottawattamie County Engineer	88	279806	4579420	0.10
Pot-9	Pottawattamie	Silver Creek	339-22	5	30	Pottawattamie County Engineer	106	287601	4569658	0.20
Sco-3	Scott	Duck Creek	Marquette Rd Dam	U	U	City of Davenport	0	700986	4602859	0.10
Sco-4	Scott	Duck Creek	Jersey Ridge Rd Dam	U	U	City of Davenport	0	705030	4602868	0.10
Tay-1	Taylor	East 102 River	Bedford Waterworks Dam	6	40	City of Bedford	88	355447	4503117	0.20
Tay-2	Taylor	East 102 River	Fairgrounds Dam	16	80	Spencer	90	354499	4502343	0.20
Win-3	Winneshiek	Turkey River	Weist Mill Dam	2	55	Weist Feed Mill Company	211	587127	4778732	0.06
Woo-12	Woodbury	Big Whiskey Creek	DOT	3	40	Woodbury County Engineer	51	232755	4708088	0.12
Woo-2	Woodbury	Floyd River	6th Street Dam	3	75	City of Sioux City - Public Works	910	221645	4710627	0.10
Woo-4	Woodbury	Floyd River	11th Street Dam	3	75	City of Sioux City - Public Works	909	221983	4711261	0.10

Structures below are barriers to Asian carp and therefore are not eligible for credit

Win-1	Winneshiek	Upper Iowa River	Lower Dam	16	123	DNR	584	606510	4797423	Not Eligible
Hen-1	Henry	Skunk River	Oakland Mills Dam	U	160	Henry County Conservation Board	4001	616555	4532450	Not Eligible
Win-2	Winneshiek	Upper Iowa River	Upper Dam	25	300	DNR	629	610069	4799356	Not Eligible
Jon-1	Jones	Wapsipinicon River	Anamosa Dam	8	160	North American Hydro	1562	641246	4662412	Not Eligible
LIn-3	Linn	Cedar River	5-in-1 Bridge & Dam	U	515	City of Cedar Rapids	6510	609967	4648291	Not Eligible
Bue-1	Buena Vista	Little Sioux River	Linn Grove Dam	10	210	Buena Vista County Conservation Board	1548	316708	4751673	Not Eligible
Cly-1	Clayton	Turkey River	Elkader Big Dam	16	205	City of Elkader	891	630347	4746021	Not Eligible